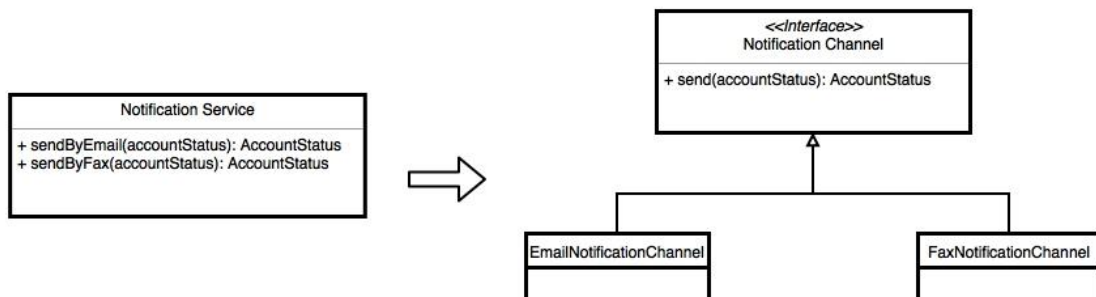
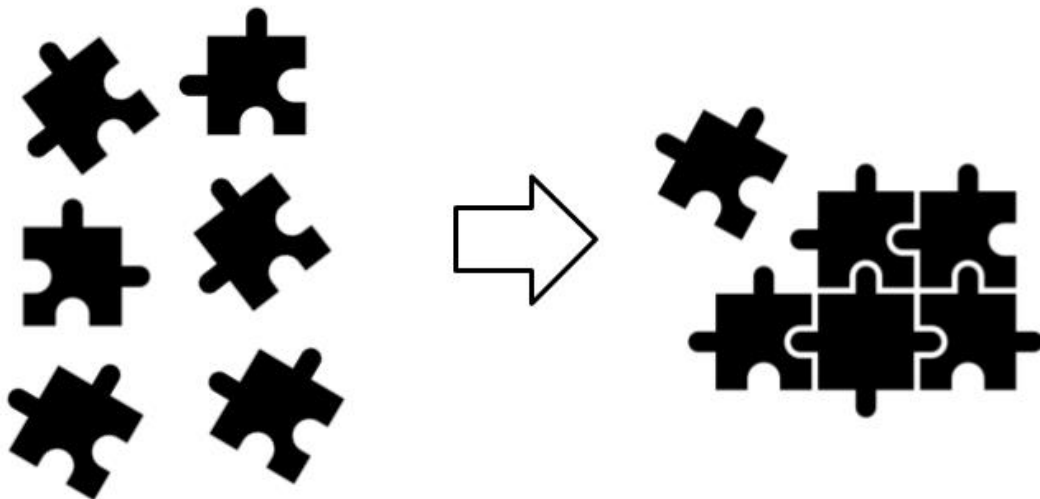
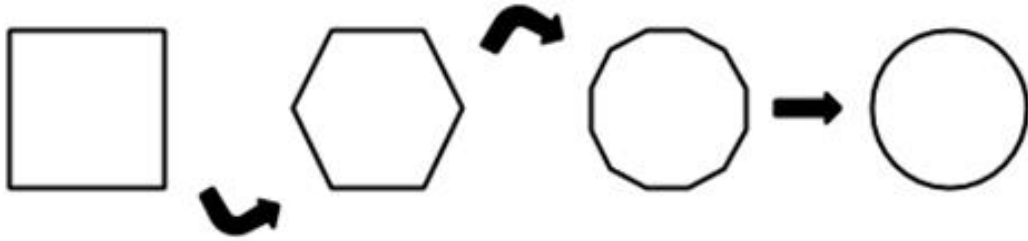
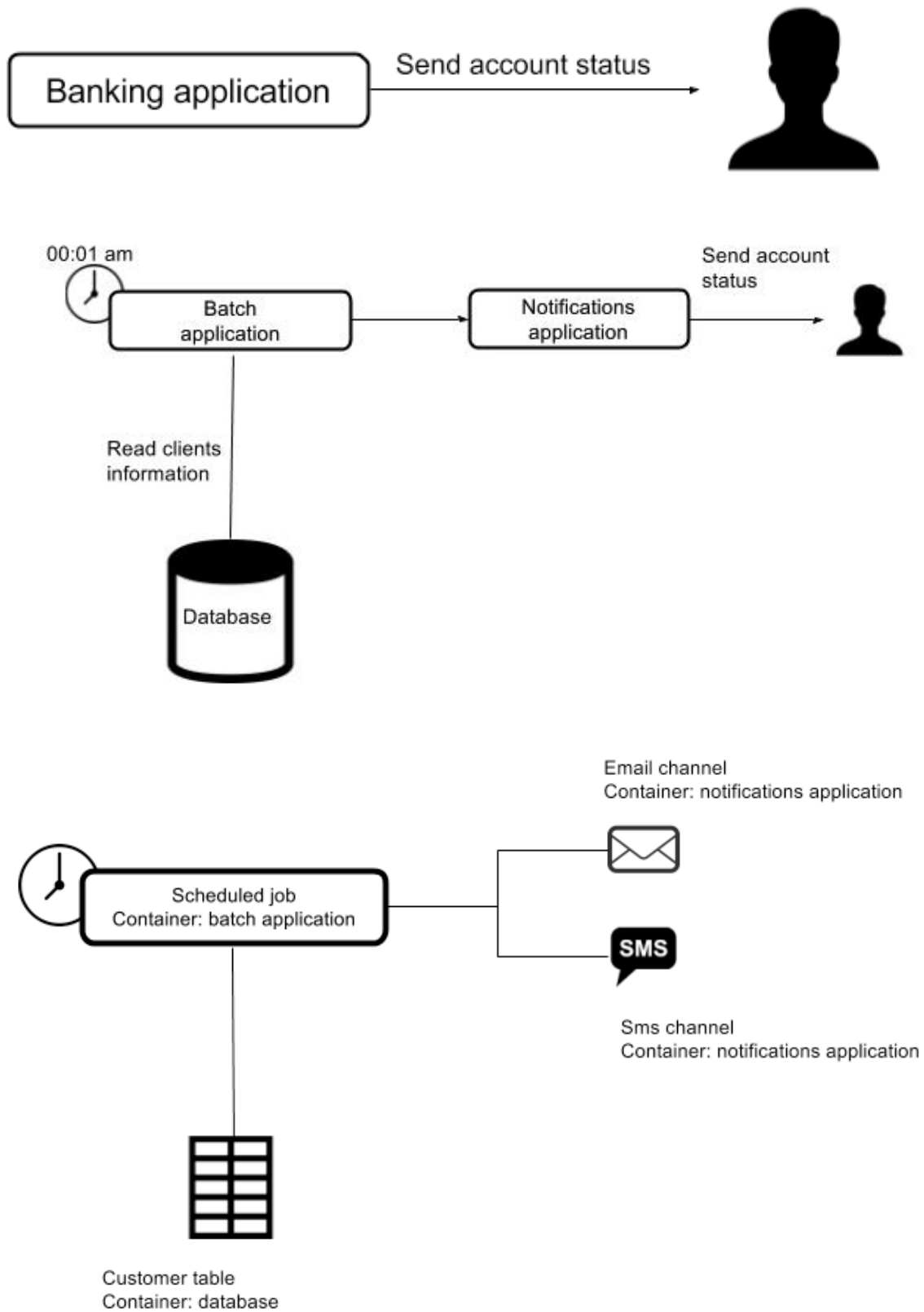
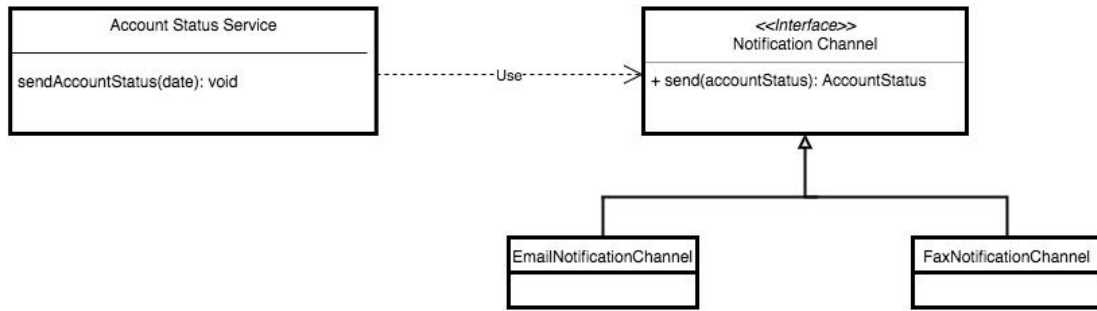


## Chapter 1



## Chapter 2





## Chapter 3

**SPRING INITIALIZR** bootstrap your application now

Generate a Maven Project with Java and Spring Boot 2.0.1

### Project Metadata

Artifact coordinates

Group

com.packpub

Artifact

simple-batch

### Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

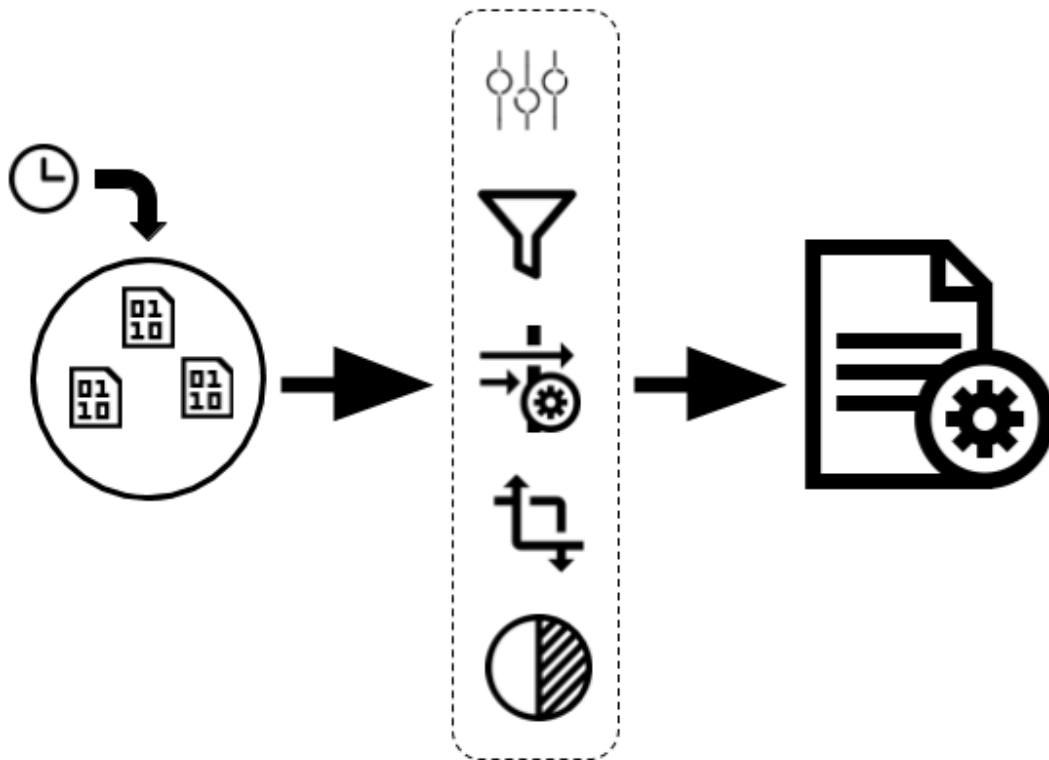
Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

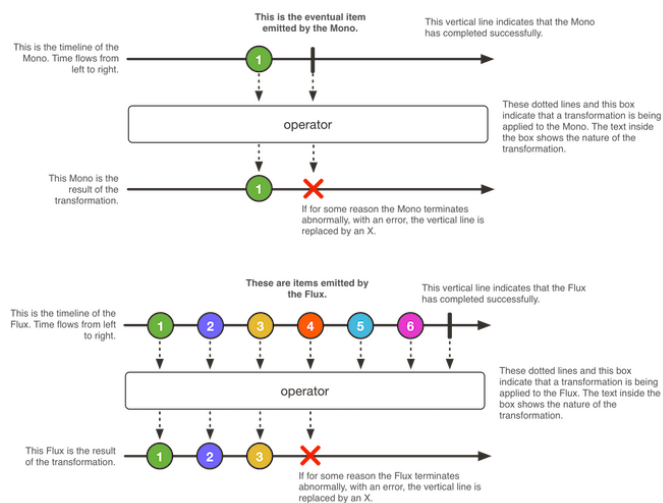
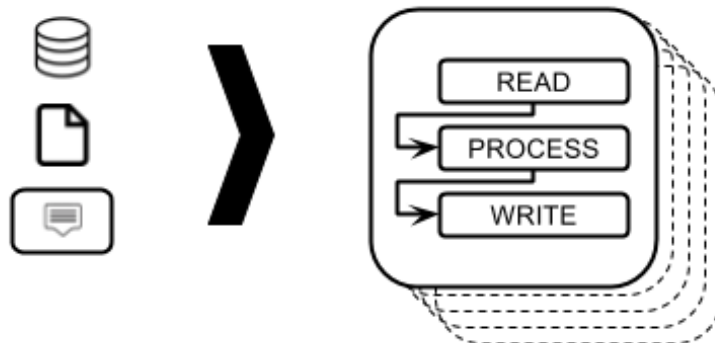
Batch

Generate Project

```
.
├── mvnw
├── mvnw.cmd
├── pom.xml
└── src
    ├── main
    │   ├── java
    │   │   ├── com
    │   │   │   ├── example
    │   │   │   │   └── demo
    │   │   │       └── DemoApplication.java
    │   └── resources
    │       └── application.properties
    └── test
        ├── java
        │   ├── com
        │   │   ├── example
        │   │   │   └── demo
        │   │       └── DemoApplicationTests.java
```



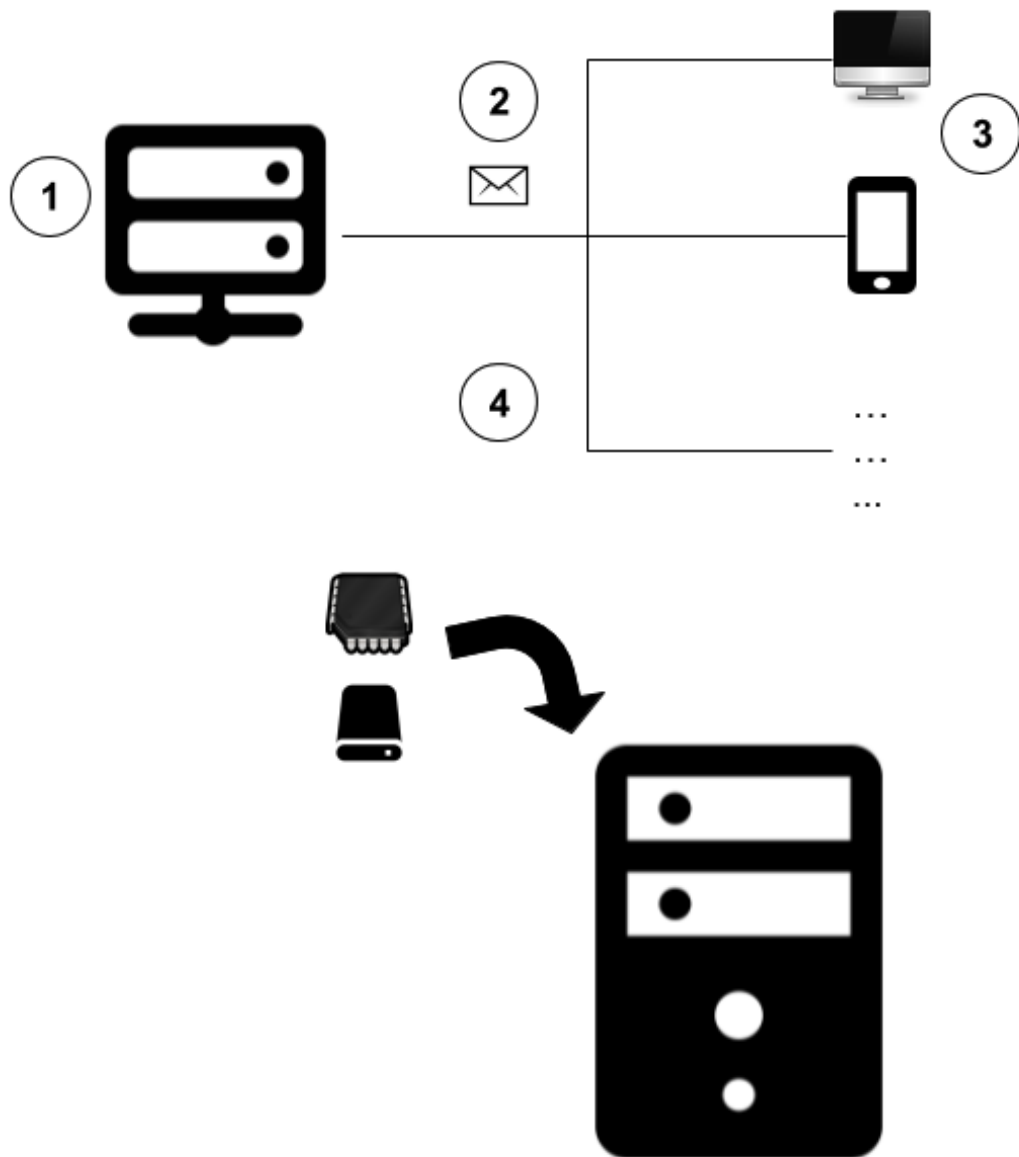
## STEPS

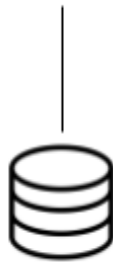
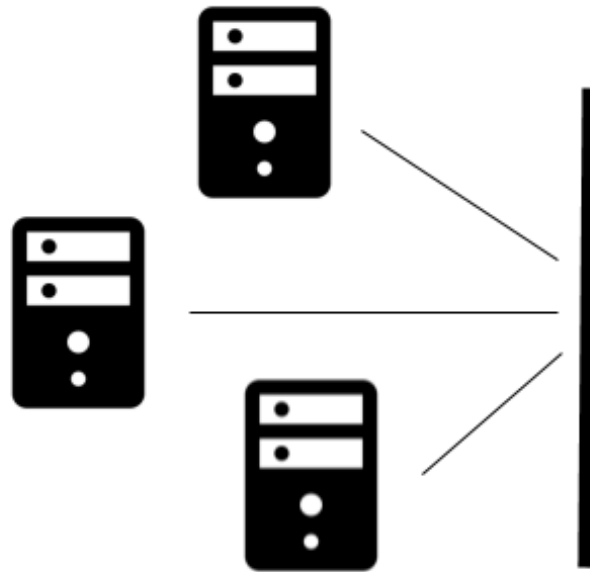






## Chapter 4



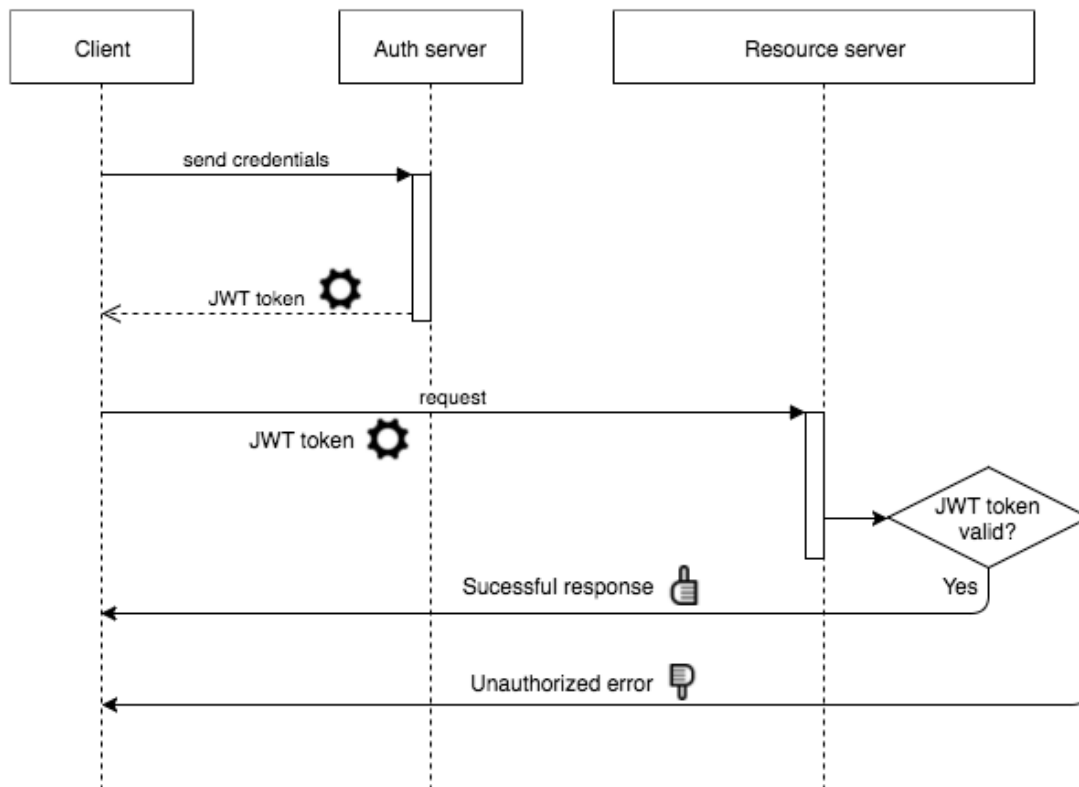


```
POST /calculator.asmx HTTP/1.1
Host: www.dneonline.com
Content-Type: application/soap+xml; charset=utf-8
Content-Length: length

<?xml version="1.0" encoding="utf-8"?>
<soap12:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap12="http://www.w3.org/2003/05/soap-envelope">
  <soap12:Body>
    <Add xmlns="http://tempuri.org/">
      <intA>int</intA>
      <intB>int</intB>
    </Add>
  </soap12:Body>
</soap12:Envelope>
```

```
HTTP/1.1 200 OK
Content-Type: application/soap+xml; charset=utf-8
Content-Length: length

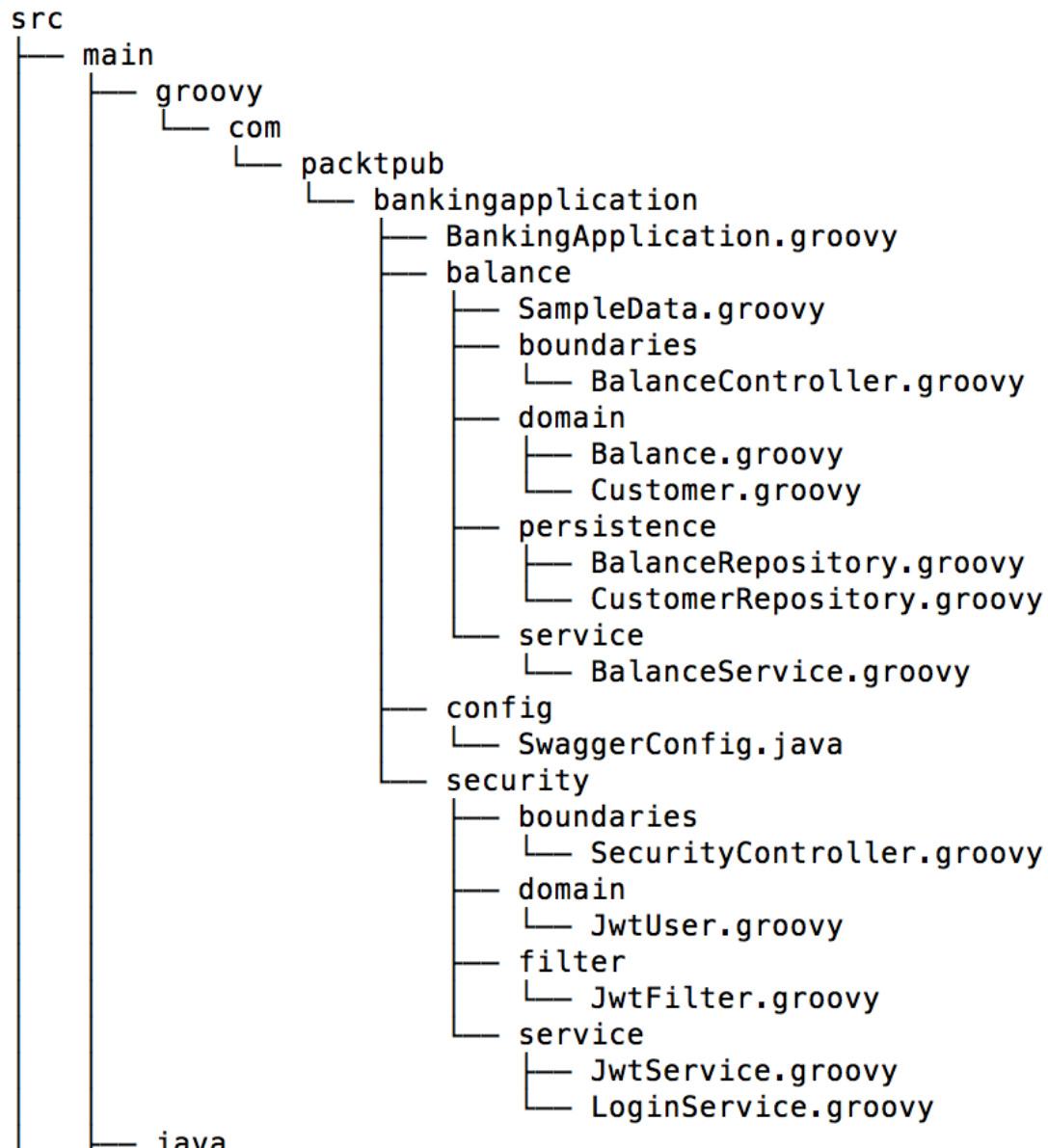
<?xml version="1.0" encoding="utf-8"?>
<soap12:Envelope xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:soap12="http://www.w3.org/2003/05/soap-envelope">
  <soap12:Body>
    <AddResponse xmlns="http://tempuri.org/">
      <AddResult>int</AddResult>
    </AddResponse>
  </soap12:Body>
</soap12:Envelope>
```



```

src/
├── main
│   ├── java
│   │   ├── com
│   │   │   ├── packtpub
│   │   │   │   ├── bankingapplication
│   │   │   │   │   ├── balance
│   │   │   │   │   │   ├── domain
│   │   │   │   │   │   │   ├── BalanceInformation.java
│   │   │   │   │   │   │   └── Credentials.java

```



#### balance-controller : Balance Controller

Show/Hide | List Operations | Expand Operations

|     |                     |            |
|-----|---------------------|------------|
| GET | /api/secure/balance | getBalance |
|-----|---------------------|------------|

#### basic-error-controller : Basic Error Controller

Show/Hide | List Operations | Expand Operations

#### security-controller : Security Controller

Show/Hide | List Operations | Expand Operations

| POST                                                                                   | /api/public/auth | auth                                                          |
|----------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------|
| Response Class (Status 200)                                                            |                  |                                                               |
| string                                                                                 |                  |                                                               |
| Response Content Type <input type="text" value="*/"/> <input type="button" value="v"/> |                  |                                                               |
| Parameters                                                                             |                  |                                                               |
| Parameter                                                                              | Value            | Description                                                   |
| credentials                                                                            | (required)       | credentials                                                   |
|                                                                                        |                  | body                                                          |
|                                                                                        |                  | Model                                                         |
|                                                                                        |                  | Example Value                                                 |
|                                                                                        |                  | <pre>{   "password": "string",   "username": "string" }</pre> |

login

POST

http://localhost:8080/api/public/auth

Authorization

Headers (1)

Body

Pre-request Script

Tests

```
1 pm.test("Status code is 200", function () {  
2     pm.response.to.have.status(200);  
3 });  
4  
5 pm.globals.set("jwt-token", pm.response.text());  
6
```

SHARE COLLECTION



Team Sharing

Embed Button

Collection Link

Generate a shareable link for others to access your collections. You can manage a complete list of your collection links from your [Postman Dashboard](#).

<https://www.getpostman.com/collections/8930b54ce719908646ae>

Update Link



Copy To Clipboard

Link last updated 43 mins ago

## demo-server-client

### → login

POST http://localhost:8080/api/public/auth [200 OK, 409B, 19ms]

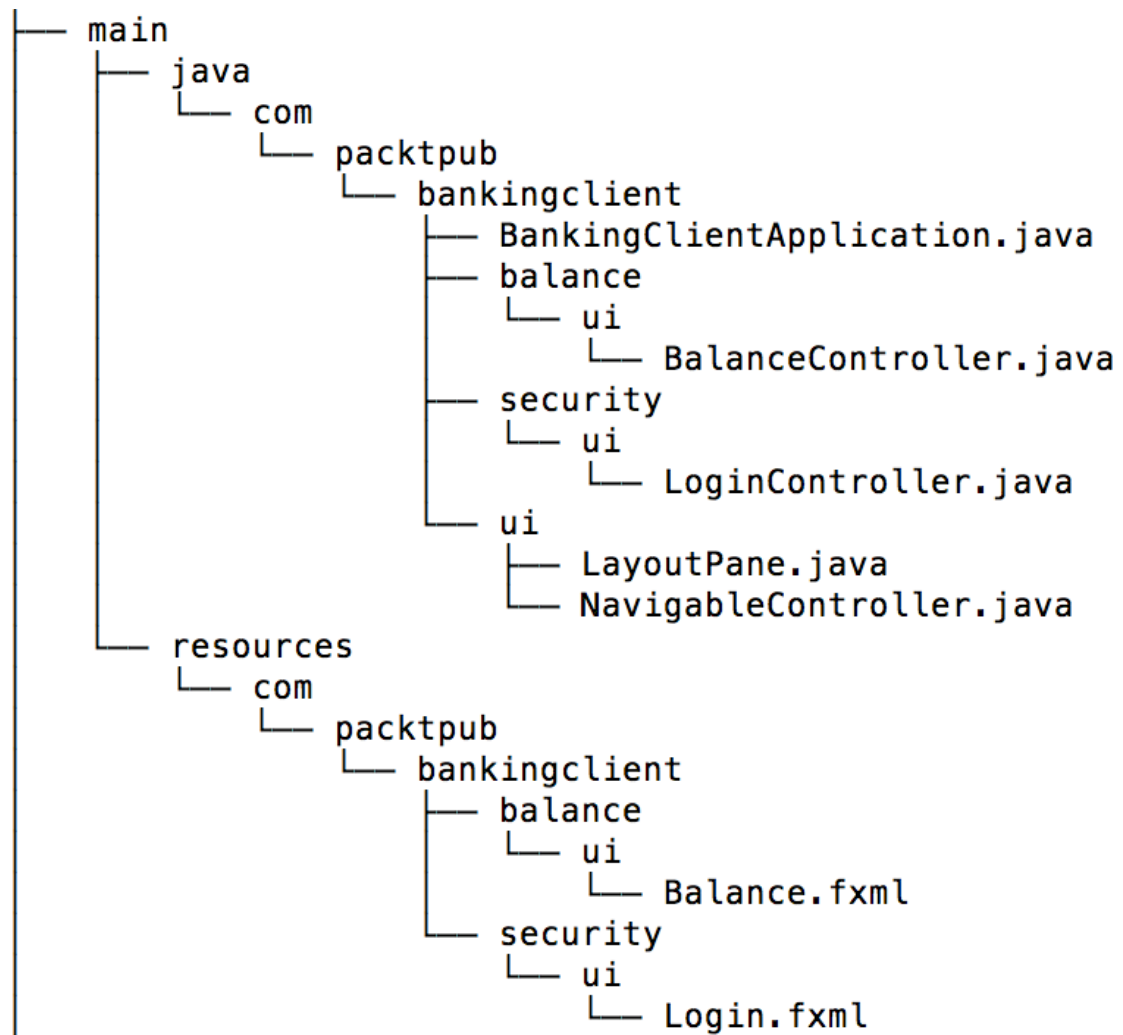
✓ Status code is 200

### → query-balance

GET http://localhost:8080/api/secure/balance [200 OK, 199B, 16ms]

✓ Status code is 200

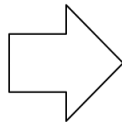
|                                    | executed | failed |
|------------------------------------|----------|--------|
| iterations                         | 1        | 0      |
| requests                           | 2        | 0      |
| test-scripts                       | 2        | 0      |
| prerequisite-scripts               | 0        | 0      |
| assertions                         | 2        | 0      |
| total run duration: 314ms          |          |        |
| total data received: 289B (approx) |          |        |
| average response time: 17ms        |          |        |



### Login

Username:

Password:



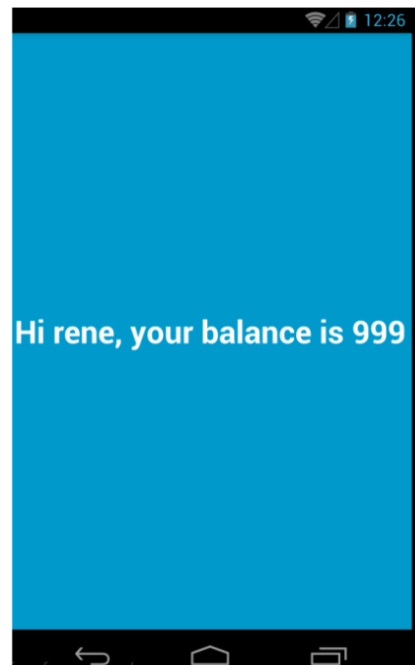
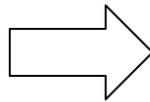
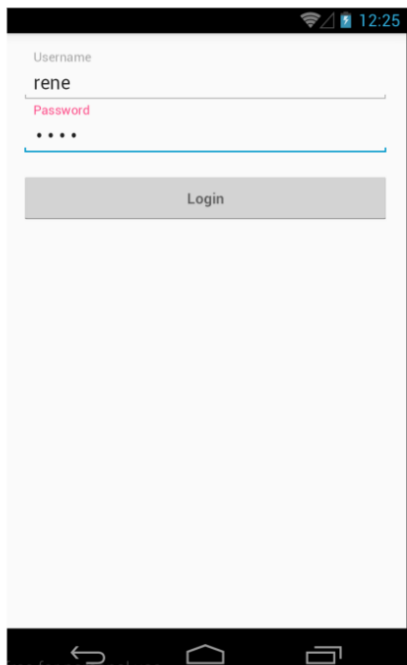
Query

Exit

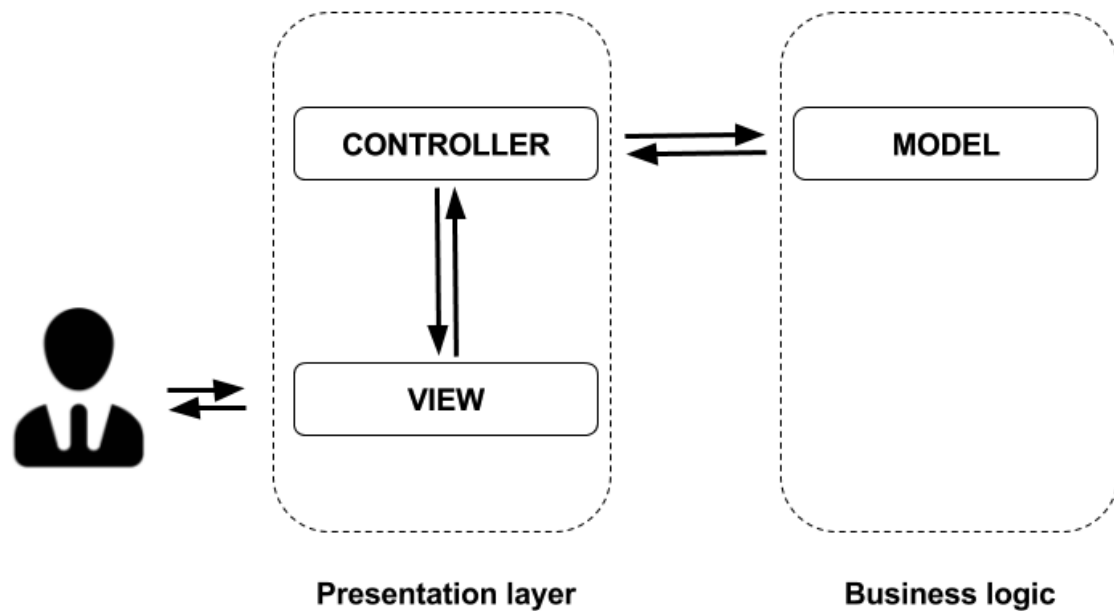
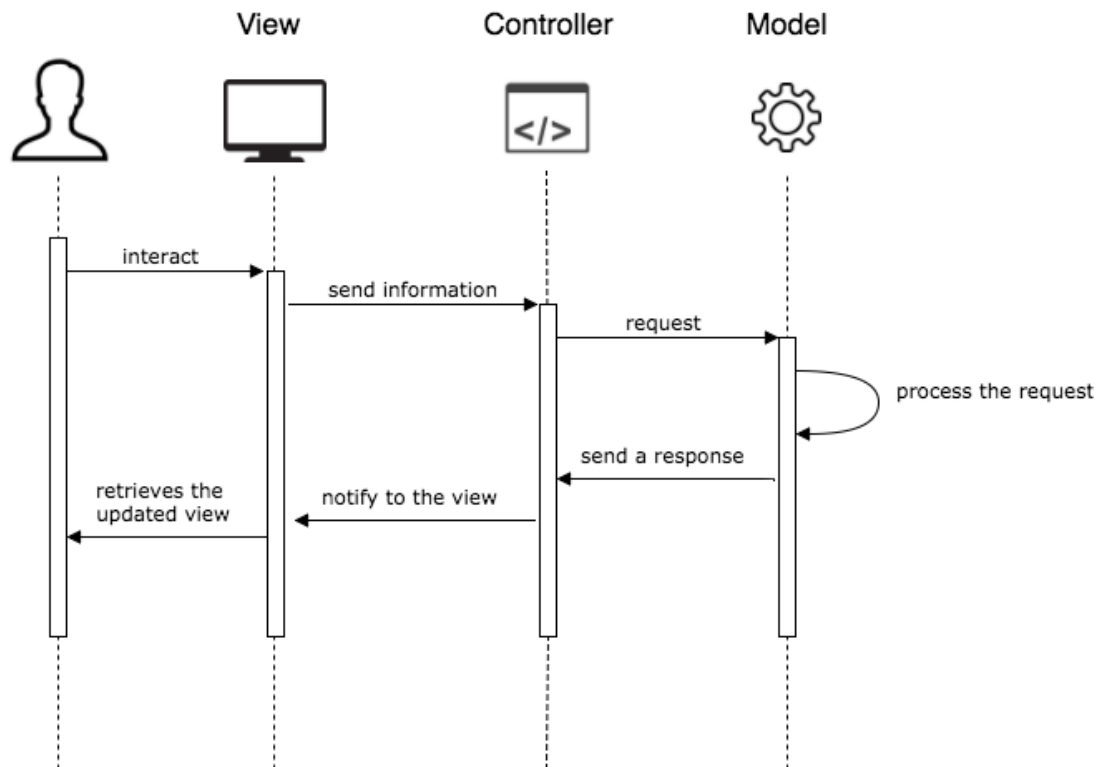
**Hi rene, your balance is 999**

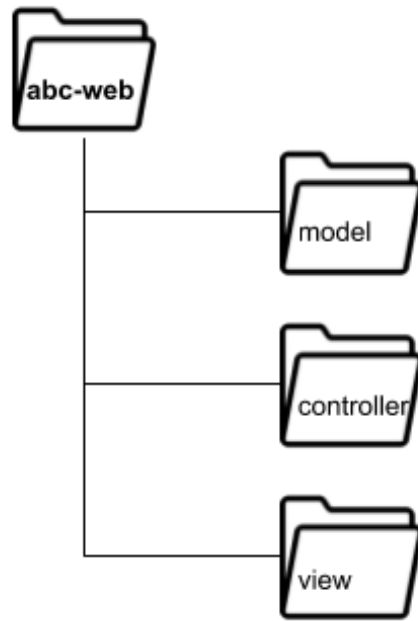


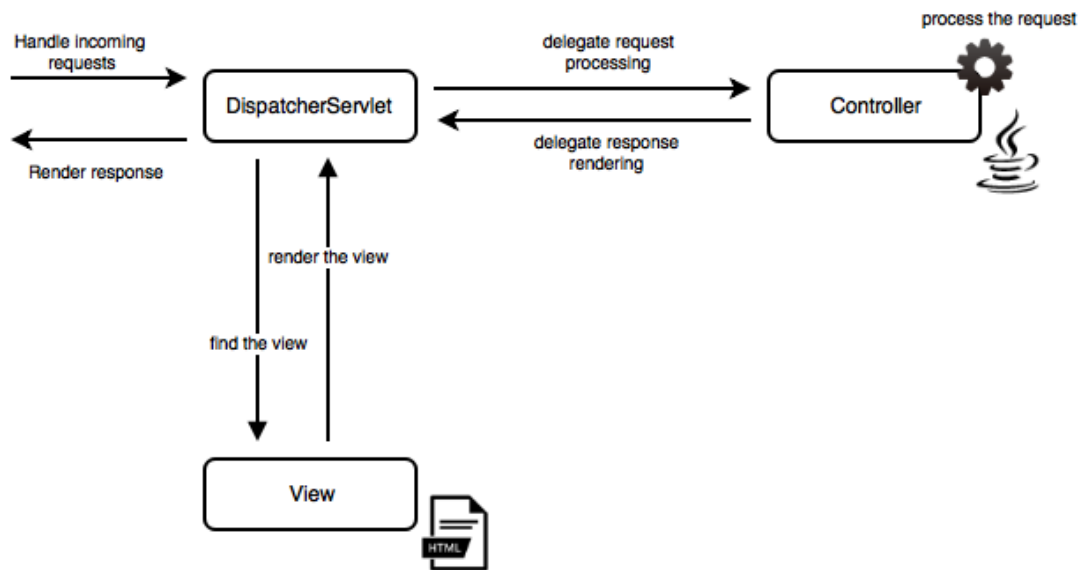
```
java
├── com
│   └── packtpub
│       └── bankingmobile
│           ├── BalanceActivity.java
│           └── LoginActivity.java
res
├── drawable
│   └── ic_launcher_background.xml
├── drawable-v24
│   └── ic_launcher_foreground.xml
└── layout
    ├── activity_balance.xml
    └── activity_login.xml
```



## Chapter 5







banking-app

## banking-app

| Element                                                                                                                               | Missed Instructions    | Cov.       | Missed Branches        | Cov.     | Missed | Cxty | Missed | Lines | Missed | Methods | Missed | Classes |    |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------|------------------------|----------|--------|------|--------|-------|--------|---------|--------|---------|----|
|  com.packtpub.bankingapp.balance.domain              | <div><div></div></div> | 13%        | <div><div></div></div> | 0%       | 31     | 38   | 5      | 16    | 12     | 19      | 0      | 2       |    |
|  com.packtpub.bankingapp.integration                 | <div><div></div></div> | 20%        | <div><div></div></div> | 0%       | 5      | 7    | 7      | 9     | 4      | 6       | 0      | 1       |    |
|  com.packtpub.bankingapp.notifications.domain        | <div><div></div></div> | 76%        | <div><div></div></div> | n/a      | 2      | 4    | 0      | 2     | 2      | 4       | 0      | 1       |    |
|  com.packtpub.bankingapp                             | <div><div></div></div> | 88%        | <div><div></div></div> | n/a      | 1      | 4    | 2      | 7     | 1      | 4       | 0      | 1       |    |
|  com.packtpub.bankingapp.notifications.channels      | <div><div></div></div> | 0%         | <div><div></div></div> | n/a      | 1      | 1    | 2      | 2     | 1      | 1       | 1      | 1       |    |
|  com.packtpub.bankingapp.security.config             | <div><div></div></div> | 100%       | <div><div></div></div> | n/a      | 0      | 2    | 0      | 13    | 0      | 2       | 0      | 1       |    |
|  com.packtpub.bankingapp.balance.services            | <div><div></div></div> | 100%       | <div><div></div></div> | n/a      | 0      | 5    | 0      | 15    | 0      | 5       | 0      | 2       |    |
|  com.packtpub.bankingapp.security.auth               | <div><div></div></div> | 100%       | <div><div></div></div> | 100%     | 0      | 3    | 0      | 12    | 0      | 2       | 0      | 1       |    |
|  com.packtpub.bankingapp.notifications.factory       | <div><div></div></div> | 100%       | <div><div></div></div> | n/a      | 0      | 2    | 0      | 6     | 0      | 2       | 0      | 1       |    |
|  com.packtpub.bankingapp.notifications.ui            | <div><div></div></div> | 100%       | <div><div></div></div> | n/a      | 0      | 2    | 0      | 6     | 0      | 2       | 0      | 1       |    |
|  com.packtpub.bankingapp.notifications.channels.impl | <div><div></div></div> | 100%       | <div><div></div></div> | n/a      | 0      | 2    | 0      | 2     | 0      | 2       | 0      | 2       |    |
| Total                                                                                                                                 |                        | 248 of 548 | 54%                    | 40 of 42 | 4%     | 40   | 70     | 16    | 90     | 20      | 49     | 1       | 14 |

Created with JaCoCo

banking-app > com.packtpub.bankingapp.balance.domain > Customer

## Customer

| Element                                                      | Missed Instructions    | Cov. | Missed Branches        | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods |
|--------------------------------------------------------------|------------------------|------|------------------------|------|--------|------|--------|-------|--------|---------|
| <a href="#">equals(Object)</a>                               | <div><div></div></div> | 0%   | <div><div></div></div> | 0%   | 16     | 16   | 1      | 1     | 1      | 1       |
| <a href="#">hashCode()</a>                                   | <div><div></div></div> | 0%   | <div><div></div></div> | 0%   | 5      | 5    | 1      | 1     | 1      | 1       |
| <a href="#">toString()</a>                                   | <div><div></div></div> | 0%   |                        | n/a  | 1      | 1    | 1      | 1     | 1      | 1       |
| <a href="#">setIdCustomer(Long)</a>                          | <div><div></div></div> | 0%   |                        | n/a  | 1      | 1    | 1      | 1     | 1      | 1       |
| <a href="#">setUsername(String)</a>                          | <div><div></div></div> | 0%   |                        | n/a  | 1      | 1    | 1      | 1     | 1      | 1       |
| <a href="#">setPassword(String)</a>                          | <div><div></div></div> | 0%   |                        | n/a  | 1      | 1    | 1      | 1     | 1      | 1       |
| <a href="#">getUsername()</a>                                | <div><div></div></div> | 0%   |                        | n/a  | 1      | 1    | 1      | 1     | 1      | 1       |
| <a href="#">canEqual(Object)</a>                             | <div><div></div></div> | 0%   |                        | n/a  | 1      | 1    | 1      | 1     | 1      | 1       |
| <a href="#">Customer(String, String, NotificationType[])</a> | <div><div></div></div> | 100% |                        | n/a  | 0      | 1    | 0      | 5     | 0      | 1       |
| <a href="#">setPreferredNotificationChannels(List)</a>       | <div><div></div></div> | 100% |                        | n/a  | 0      | 1    | 0      | 1     | 0      | 1       |
| <a href="#">getIdCustomer()</a>                              | <div><div></div></div> | 100% |                        | n/a  | 0      | 1    | 0      | 1     | 0      | 1       |
| <a href="#">getPassword()</a>                                | <div><div></div></div> | 100% |                        | n/a  | 0      | 1    | 0      | 1     | 0      | 1       |
| <a href="#">getPreferredNotificationChannels()</a>           | <div><div></div></div> | 100% |                        | n/a  | 0      | 1    | 0      | 1     | 0      | 1       |
| <a href="#">Customer()</a>                                   | <div><div></div></div> | 100% |                        | n/a  | 0      | 1    | 0      | 1     | 0      | 1       |
| Total                                                        | 196 of 225             | 12%  | 38 of 38               | 0%   | 27     | 33   | 2      | 12    | 8      | 14      |

banking-app > com.packtpub.bankingapp.security.auth > BankingUsersDetailsService

## BankingUsersDetailsService

| Element                                        | Missed Instructions    | Cov. | Missed Branches        | Cov. | Missed | Cxty | Missed | Lines | Missed | Methods |
|------------------------------------------------|------------------------|------|------------------------|------|--------|------|--------|-------|--------|---------|
| loadUserByUsername(String)                     | <div><div></div></div> | 100% | <div><div></div></div> | 100% | 0      | 2    | 0      | 9     | 0      | 1       |
| BankingUsersDetailsService(CustomerRepository) | <div><div></div></div> | 100% | <div><div></div></div> | n/a  | 0      | 1    | 0      | 3     | 0      | 1       |
| Total                                          | 0 of 39                | 100% | 0 of 2                 | 100% | 0      | 3    | 0      | 12    | 0      | 2       |

Page content goes here

Page content goes here

Capturing from Loopback: lo0

| No. | Time     | Source | Destination | Protocol | Length | Info                     |
|-----|----------|--------|-------------|----------|--------|--------------------------|
| 21  | 1.494572 | :::1   | :::1        | HTTP     | 166    | POST /login HTTP/1.1 ... |
| 25  | 1.688858 | :::1   | :::1        | HTTP     | 81     | HTTP/1.1 200 (text/h...  |

- ▶ Frame 21: 166 bytes on wire (1328 bits), 166 bytes captured (1328 bits) on interface 0
- ▶ Null/Loopback
- ▶ Internet Protocol Version 6, Src: ::1, Dst: ::1
- ▶ Transmission Control Protocol, Src Port: 50099, Dst Port: 8080, Seq: 604, Ack: 1, Len: 90
- ▶ [2 Reassembled TCP Segments (693 bytes): #19(603), #21(90)]
- ▶ **Hypertext Transfer Protocol**
- ▼ HTML Form URL Encoded: application/x-www-form-urlencoded
  - ▶ Form item: "username" = "rene"
  - ▶ Form item: "password" = "rene"
  - ▶ Form item: "login-submit" = "Log In"
  - ▶ Form item: "\_csrf" = "b9c4c3f1-a758-4fa9-99af-dd45613a0713"

localhost

https://localhost:8443/login



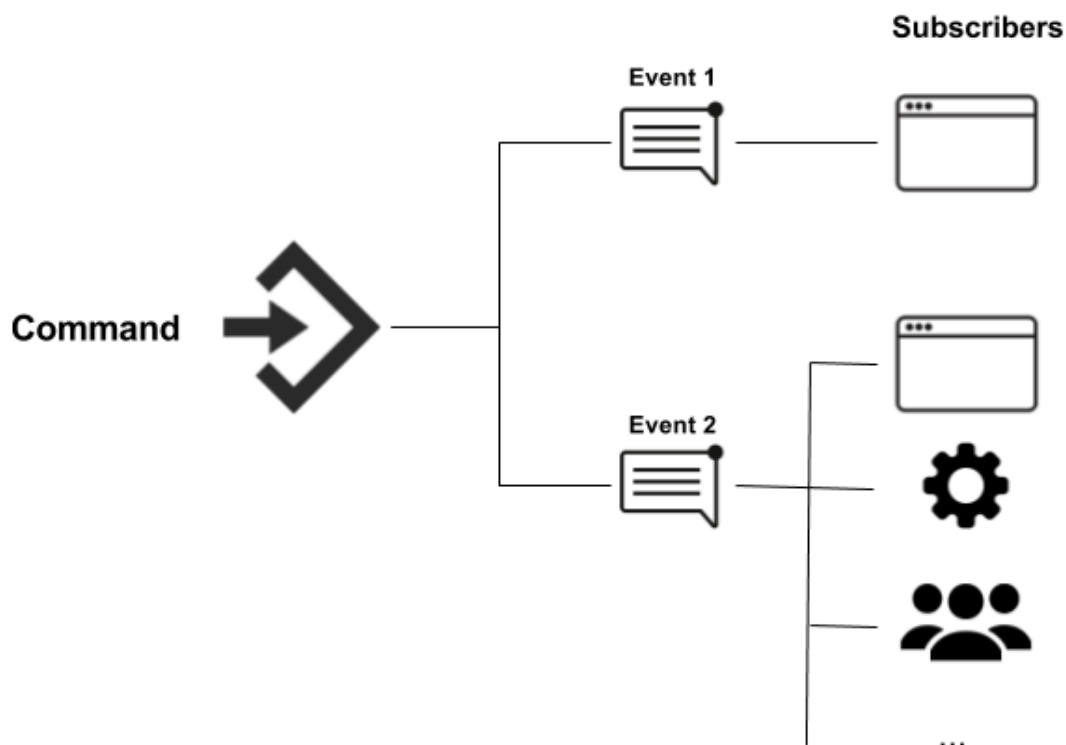
| No. | Time     | Source | Destination | Protocol | Length | Info                                                                |
|-----|----------|--------|-------------|----------|--------|---------------------------------------------------------------------|
| 15  | 2.140106 | :::1   | :::1        | TCP      | 684    | 50280 → 8443 [PSH, ACK] Seq=1 Ack=1 Win=12616 Len=608 TSval=230...  |
| 16  | 2.140143 | :::1   | :::1        | TCP      | 76     | 8443 → 50280 [ACK] Seq=1 Ack=609 Win=12684 Len=0 TSval=23095453...  |
| 17  | 2.140379 | :::1   | :::1        | TCP      | 195    | 50280 → 8443 [PSH, ACK] Seq=609 Ack=1 Win=12616 Len=119 TSval=2...  |
| 18  | 2.140401 | :::1   | :::1        | TCP      | 76     | 8443 → 50280 [ACK] Seq=1 Ack=728 Win=12680 Len=0 TSval=23095453...  |
| 19  | 2.154620 | :::1   | :::1        | TCP      | 1970   | 8443 → 50280 [PSH, ACK] Seq=1 Ack=728 Win=12680 Len=1894 TSval=...  |
| 20  | 2.154651 | :::1   | :::1        | TCP      | 76     | 50280 → 8443 [ACK] Seq=728 Ack=1895 Win=12557 Len=0 TSval=23095...  |
| 21  | 2.155127 | :::1   | :::1        | TCP      | 110    | 8443 → 50280 [PSH, ACK] Seq=1895 Ack=728 Win=12680 Len=34 TSval=... |
| 22  | 2.155155 | :::1   | :::1        | TCP      | 76     | 50280 → 8443 [ACK] Seq=728 Ack=1929 Win=12556 Len=0 TSval=23095...  |

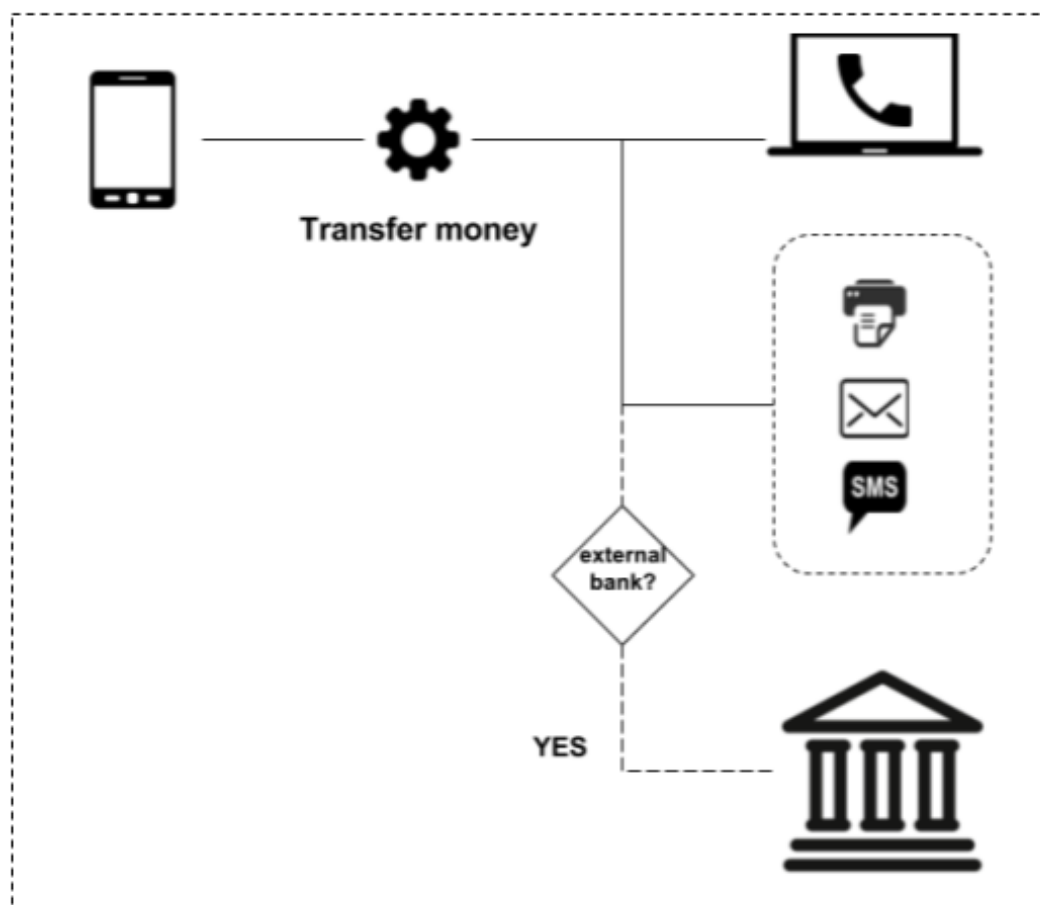
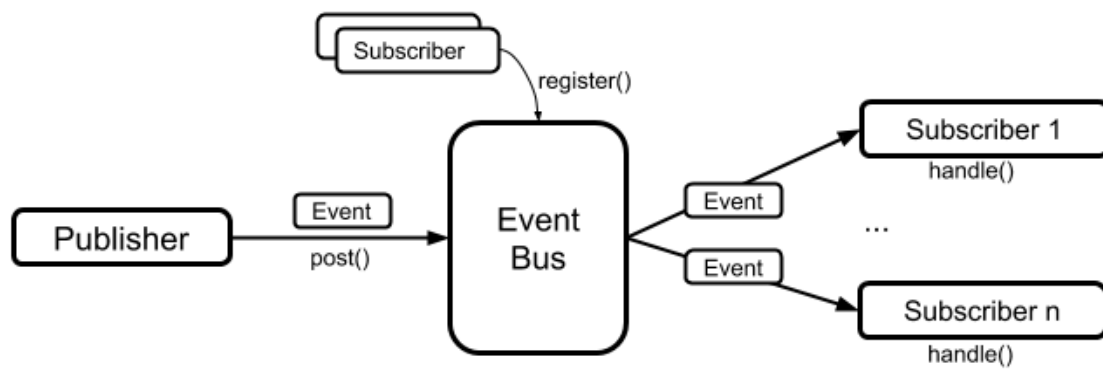
▶ Frame 21: 110 bytes on wire (880 bits), 110 bytes captured (880 bits) on interface 0  
 ▶ Null/Loopback  
 ▶ Internet Protocol Version 6, Src: ::1, Dst: ::1  
 ▶ Transmission Control Protocol, Src Port: 8443, Dst Port: 50280, Seq: 1895, Ack: 728, Len: 34  
 ▶ Data (34 bytes)  
 Data: 170303001d0000000000000006da98454bf7647dd7ce0a03...  
 [Length: 34]

```

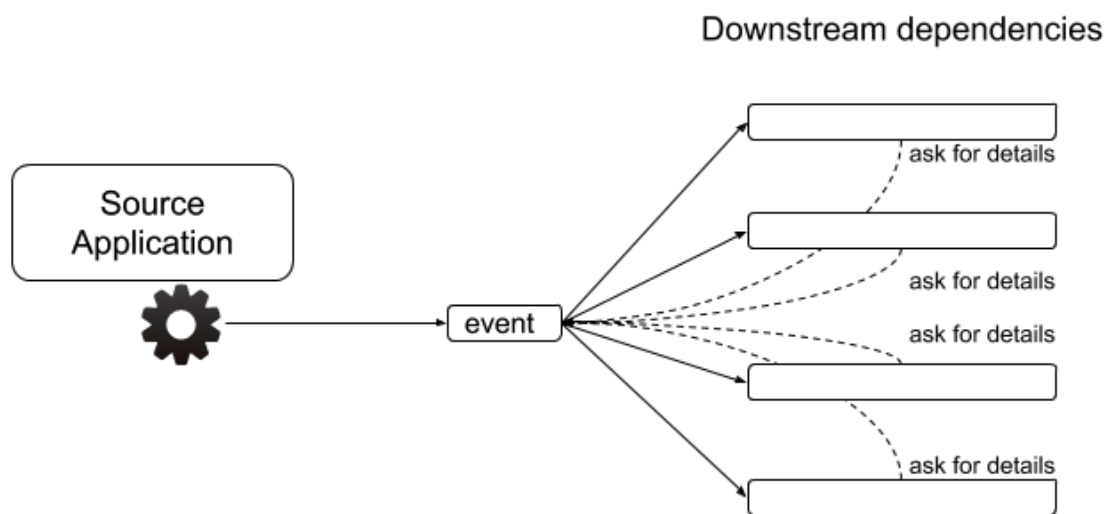
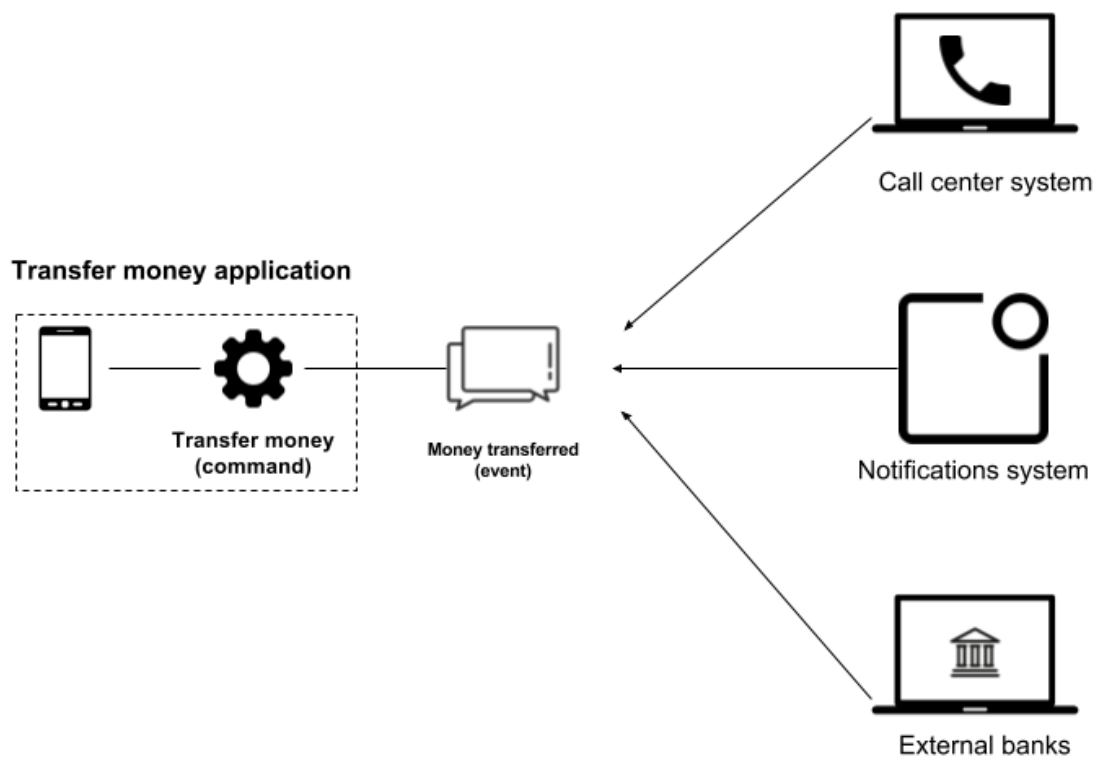
MacBook-Pro-de-Rene:~ moe$ keytool -genkey -alias tomcat -storetype PKCS12 -keyalg RSA -keysize 2048 -keystore keystore.p12 -validity 3650
Enter keystore password:
Re-enter new password:
What is your first and last name?
[Unknown]:
What is the name of your organizational unit?
[Unknown]:
What is the name of your organization?
[Unknown]:
What is the name of your City or Locality?
[Unknown]:
What is the name of your State or Province?
[Unknown]:
What is the two-letter country code for this unit?
[Unknown]:
Is CN=Unknown, OU=Unknown, O=Unknown, L=Unknown, ST=Unknown, C=Unknown correct?
[no]: yes
  
```

## Chapter 6



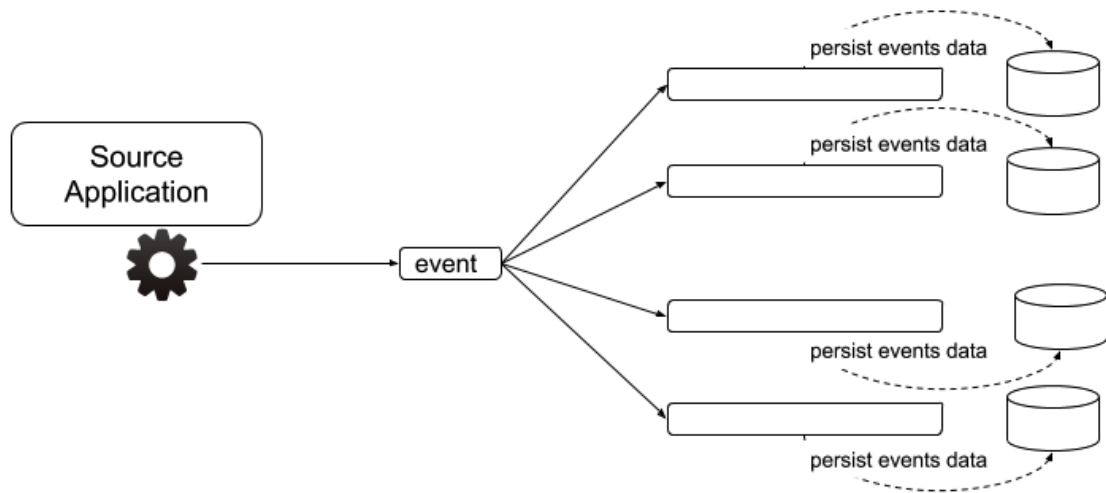


**Transfer money application**

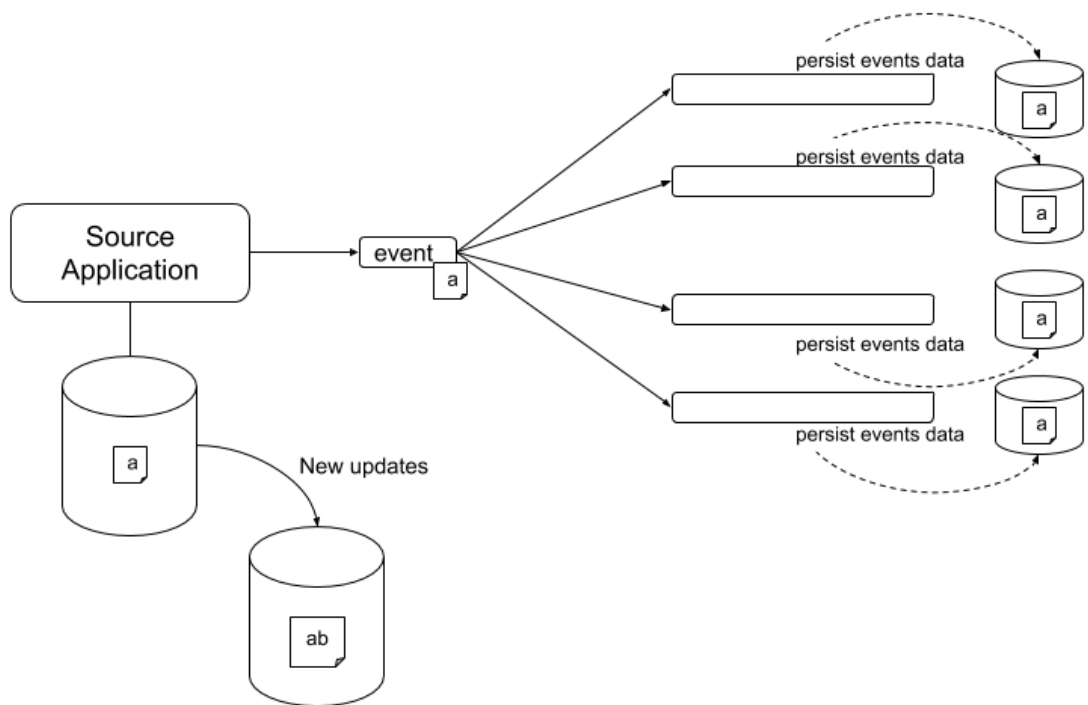


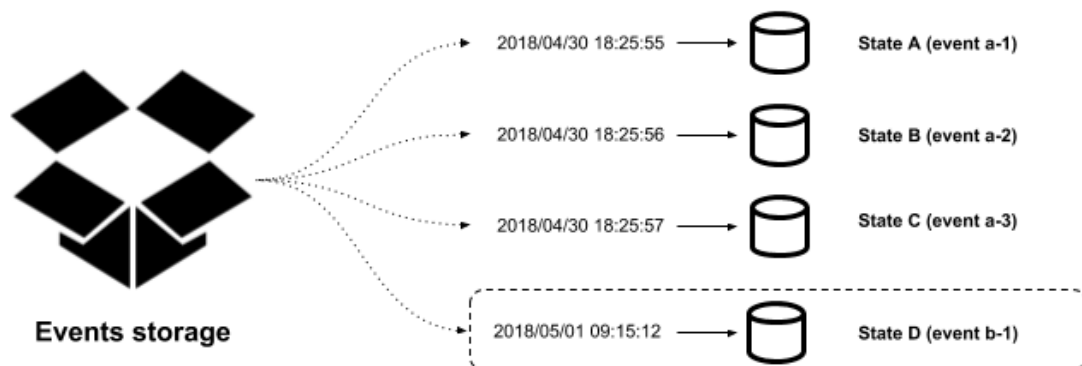
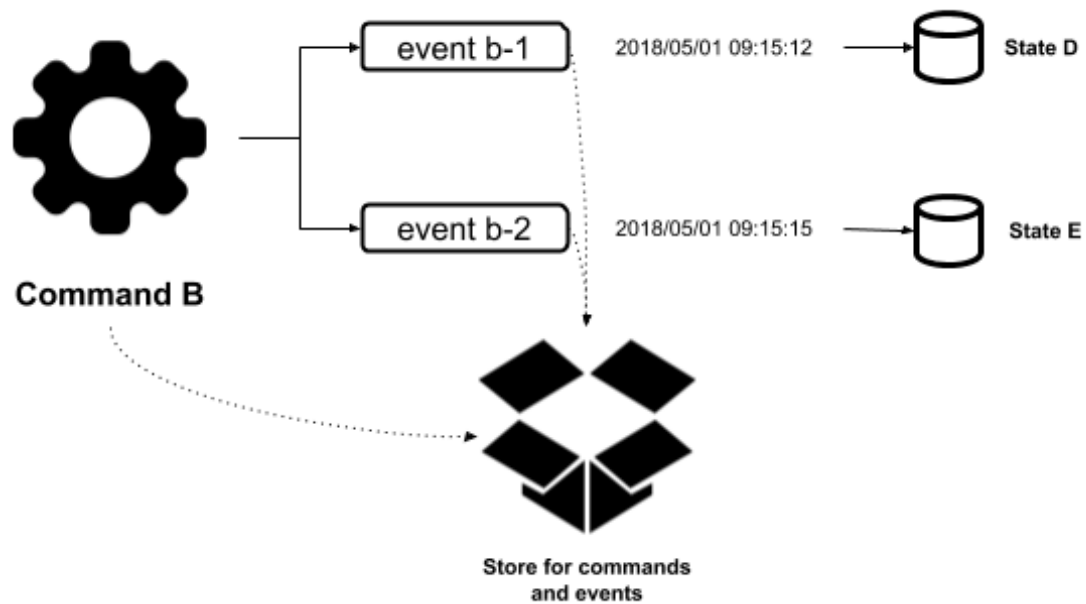
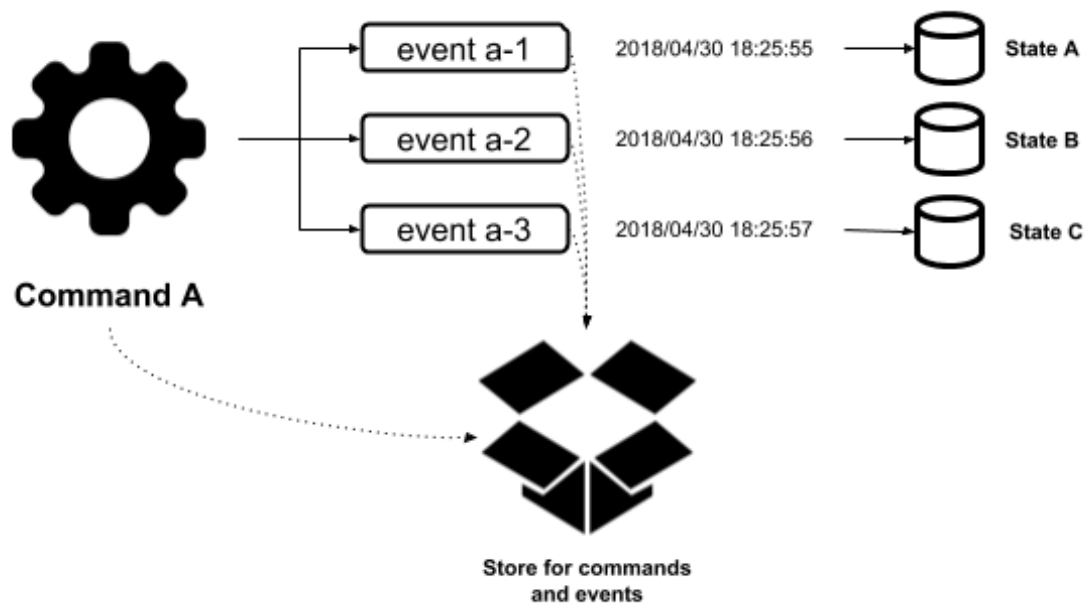


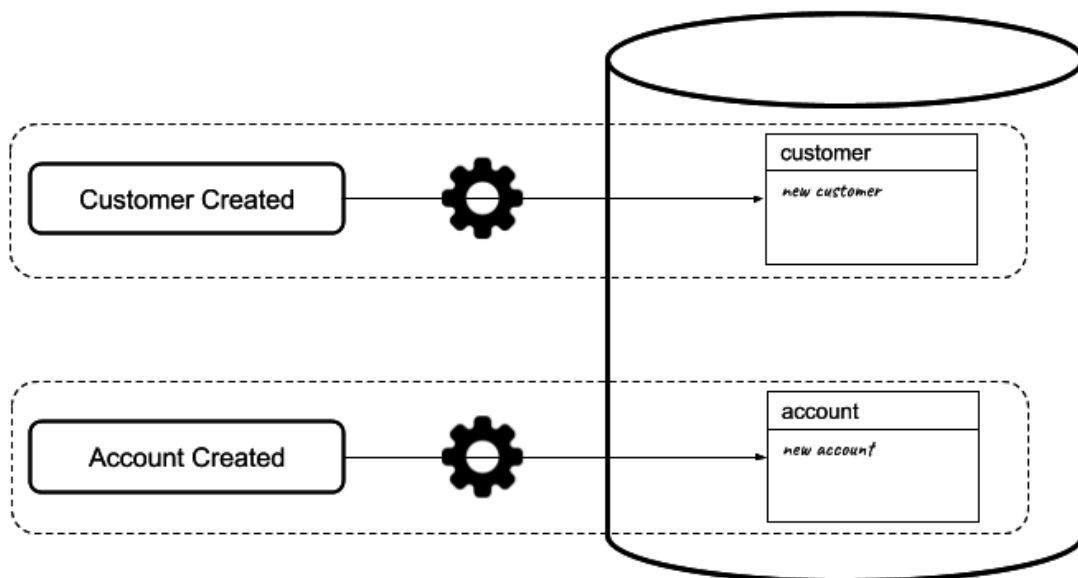
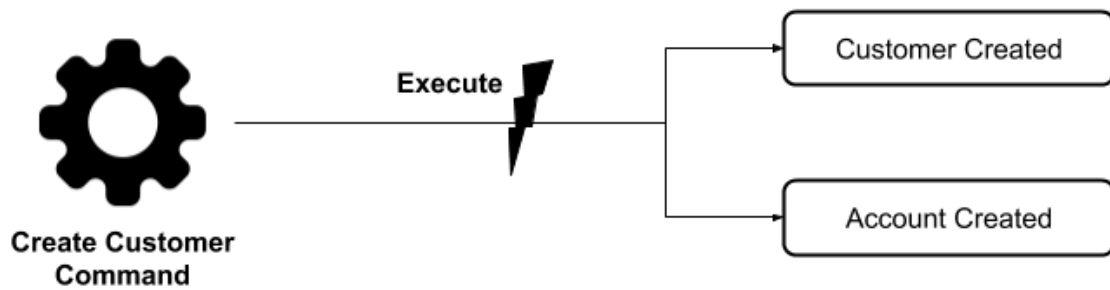
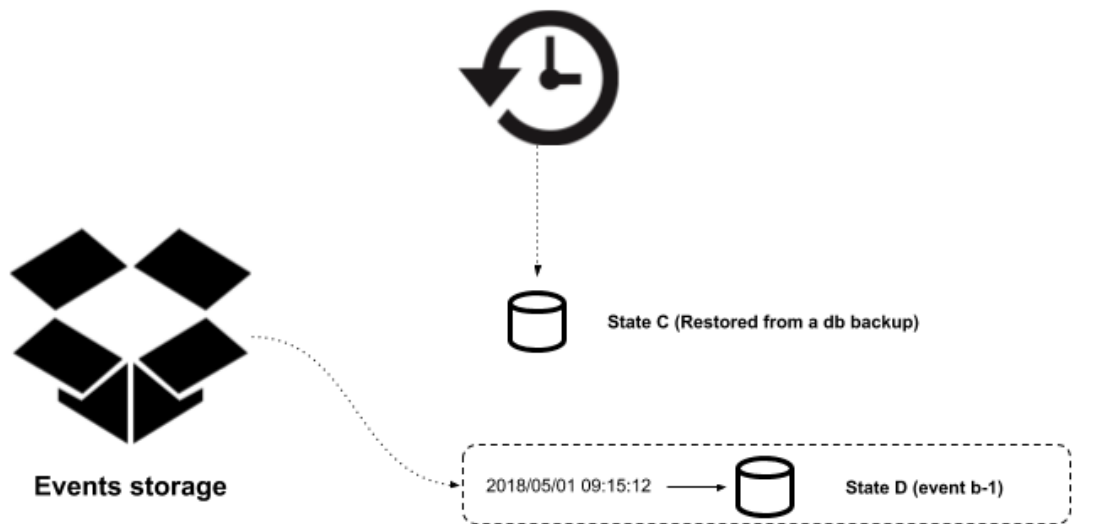
## Downstream dependencies



## Downstream dependencies







Run

Run Selected

Auto complete

Clear

SQL statement:

SELECT \* FROM ACCOUNT

SELECT \* FROM ACCOUNT;

| ACCOUNT_ID                           | BALANCE | CUSTOMER_ID                          | TYPE    |
|--------------------------------------|---------|--------------------------------------|---------|
| d8dbd8fd-fa98-4ffc-924a-f3c65e6f6156 | 1000    | 2fb9161e-c5fa-44b2-8652-75cd303fa54f | savings |

(1 row, 10 ms)

Run

Run Selected

Auto complete

Clear

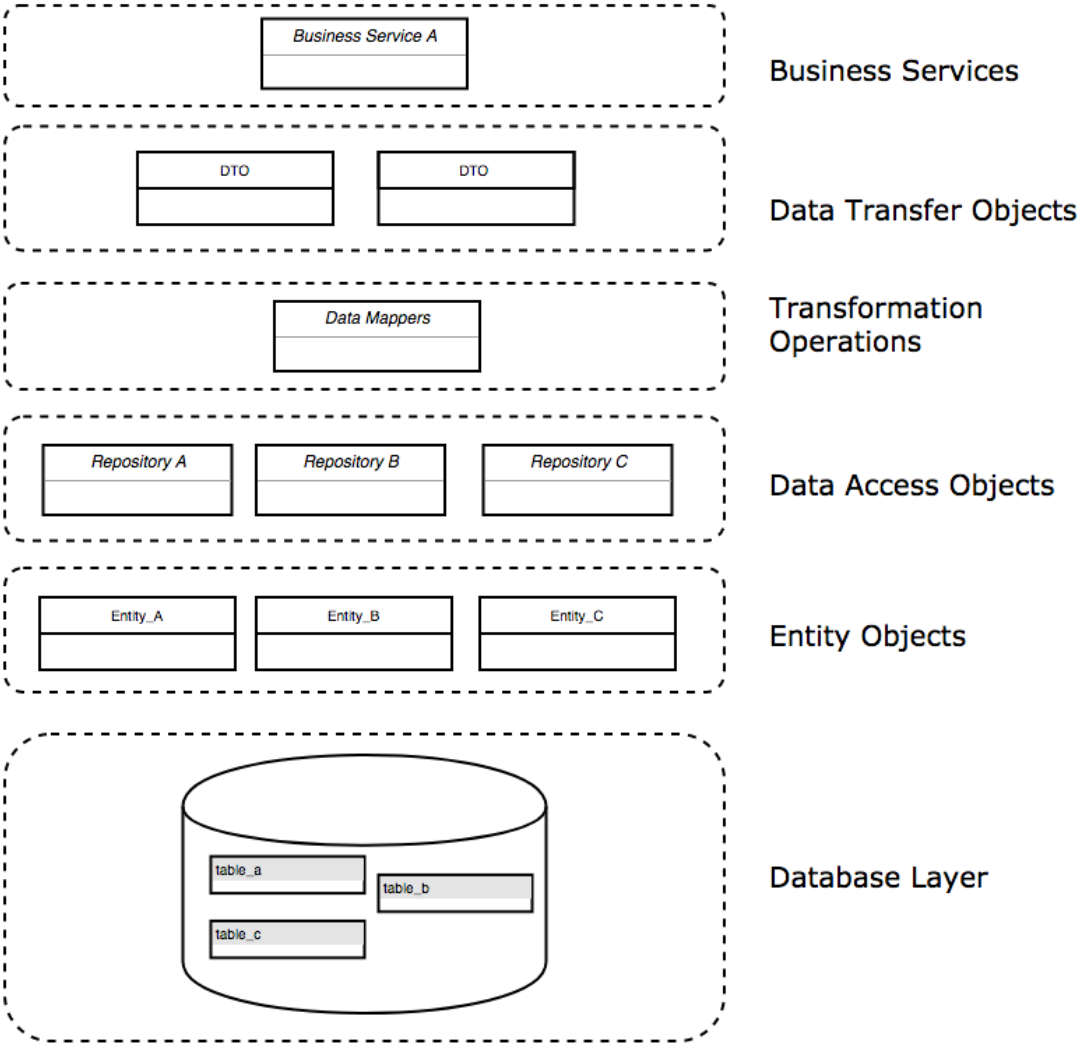
SQL statement:

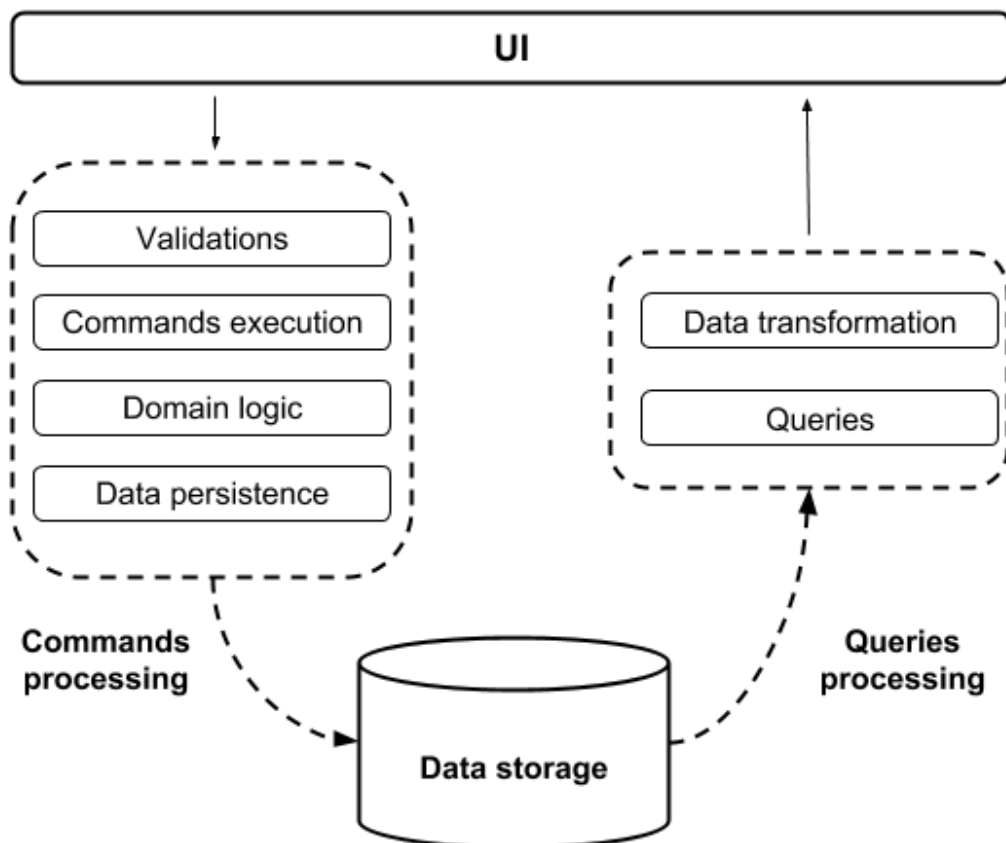
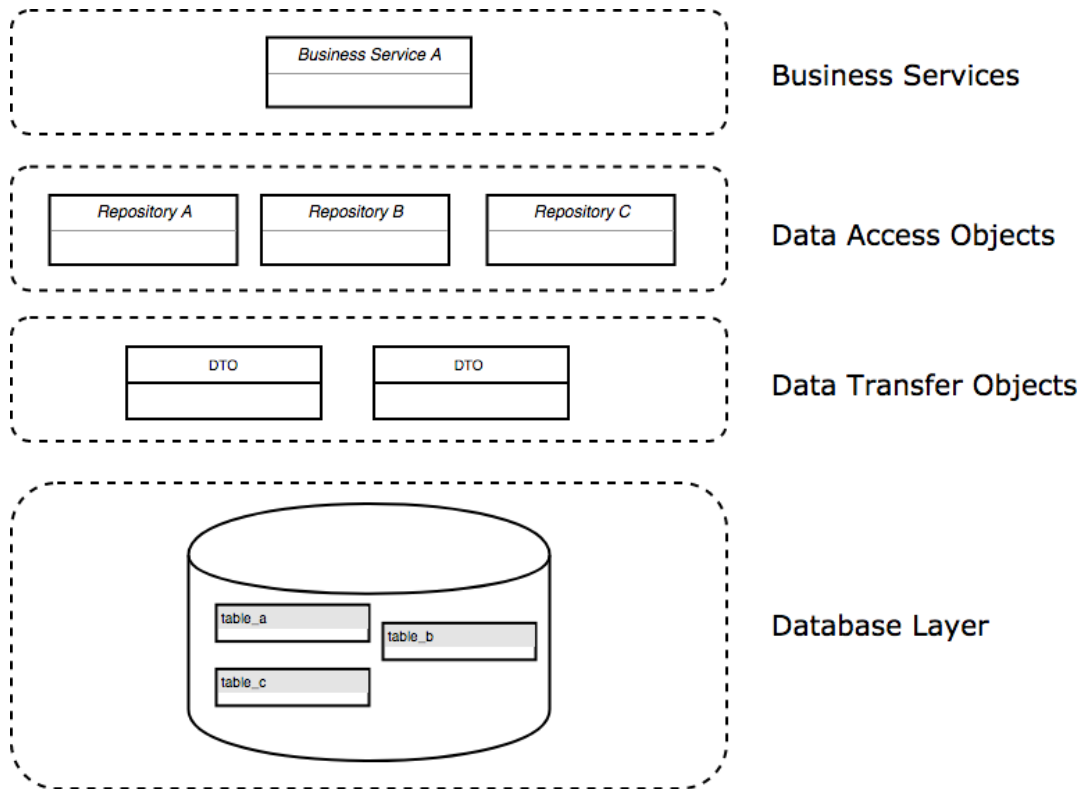
SELECT \* FROM CUSTOMER

SELECT \* FROM CUSTOMER;

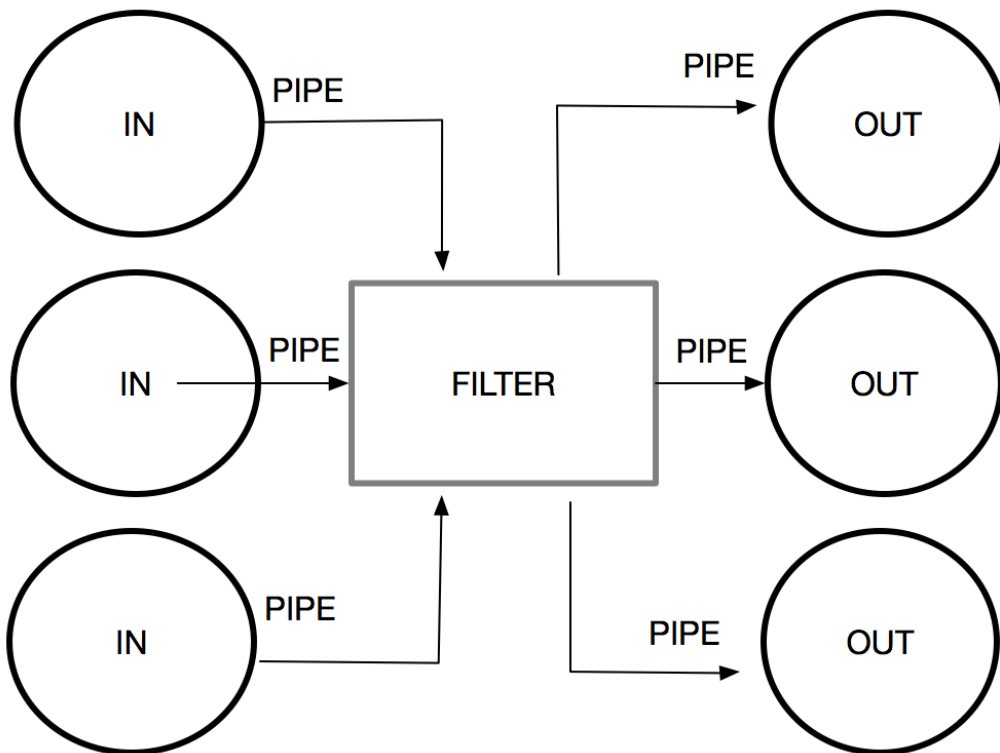
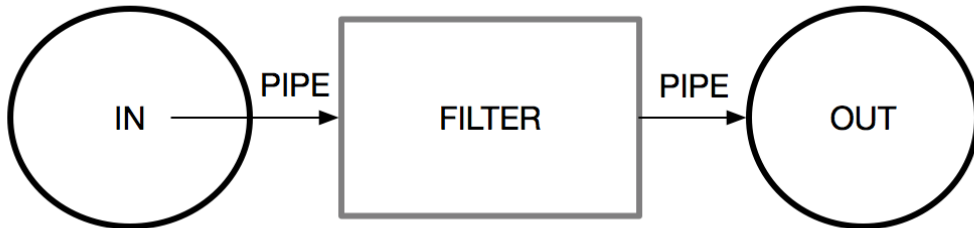
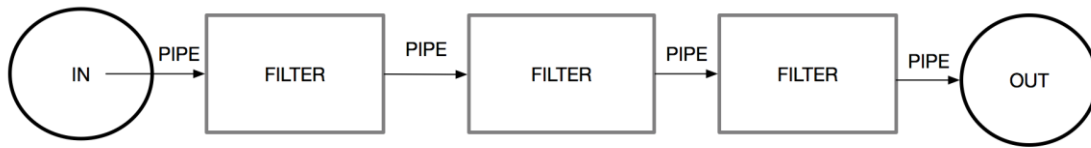
| CUSTOMER_ID                          | LAST_NAME | NAME |
|--------------------------------------|-----------|------|
| 2fb9161e-c5fa-44b2-8652-75cd303fa54f | Enriquez  | Rene |

(1 row, 8 ms)

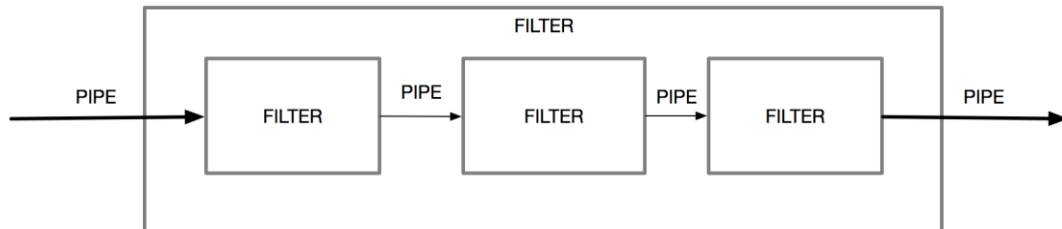
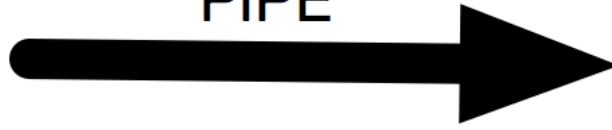




## Chapter 7



# PIPE



## SPRING INITIALIZR bootstrap your application now

Generate a Maven Project with Java and Spring Boot 2.0.1

### Project Metadata

Artifact coordinates

Group

com.packpub

Artifact

simple-batch

### Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

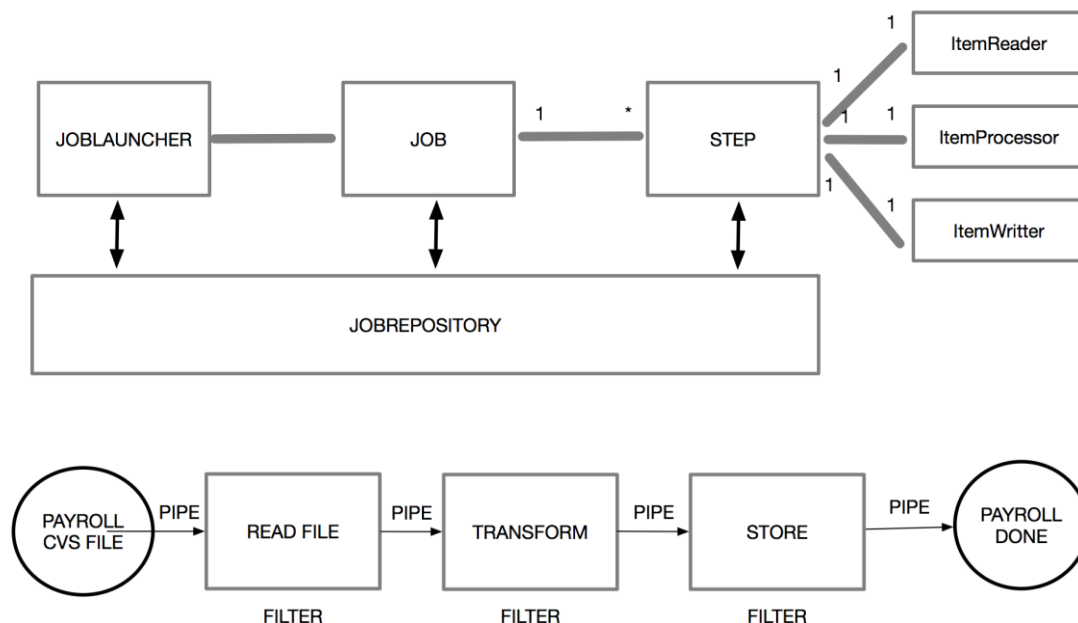
Selected Dependencies

Batch

Generate Project

→ simple-batch git:(master) × tree

```
.
├── mvnw
├── mvnw.cmd
├── pom.xml
└── src
    ├── main
    │   ├── java
    │   │   ├── com
    │   │   │   ├── packpub
    │   │   │   │   ├── simplebatch
    │   │   │   │   │   └── SimpleBatchApplication.java
    │   │   └── resources
    │   │       └── application.properties
    └── test
        ├── java
        │   ├── com
        │   │   ├── packpub
        │   │   │   ├── simplebatch
        │   │   │   │   └── SimpleBatchApplicationTests.java
```





# SPRING INITIALIZR bootstrap your application now

Generate a Maven Project with Java and Spring Boot 2.0.2

## Project Metadata

Artifact coordinates

Group

com.packpub

Artifact

payroll-process

## Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

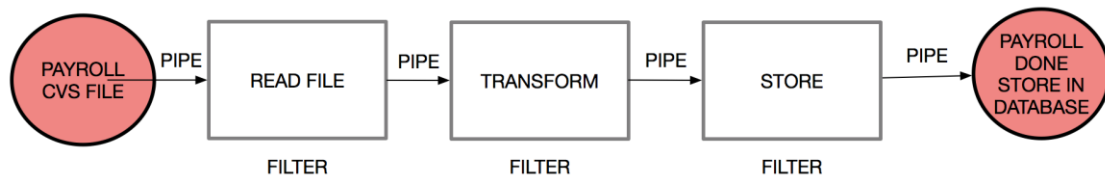
Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

Batch

Generate Project

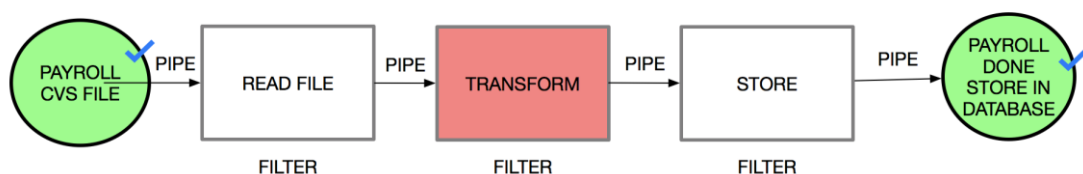
Don't know what to look for? Want more options? [Switch to the full version.](#)

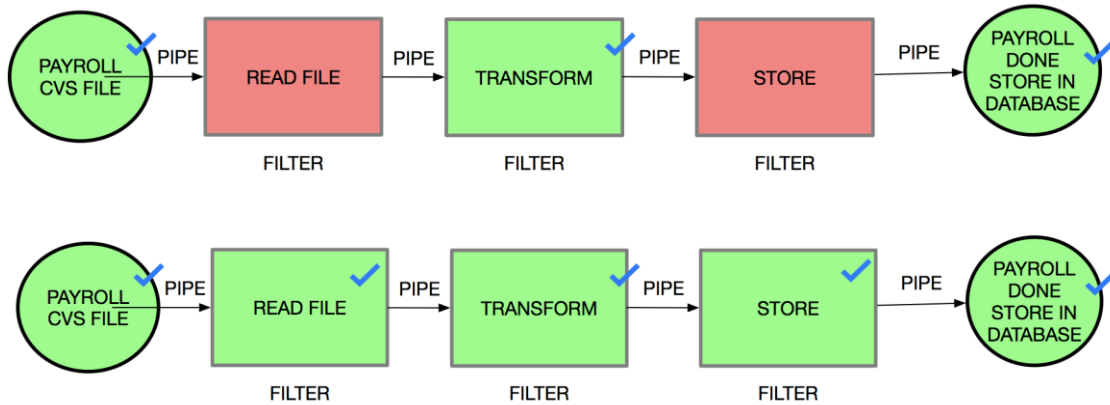


→ `payroll-process git:(master) x tree`

```
.
├── mvnw
├── mvnw.cmd
├── payroll-process.iml
├── pom.xml
├── src
│   ├── main
│   │   ├── java
│   │   │   ├── com
│   │   │   │   ├── packpub
│   │   │   │   │   ├── payrollprocess
│   │   │   │   │   │   └── PayrollProcessApplication.java
│   │   └── resources
│   │       ├── application.properties
│   │       └── payroll-data.csv
│   └── test
│       ├── java
│       │   ├── com
│       │   │   ├── packpub
│       │   │   │   ├── payrollprocess
│       │   │   │   │   └── PayrollProcessApplicationTests.java
```

12 directories, 8 files



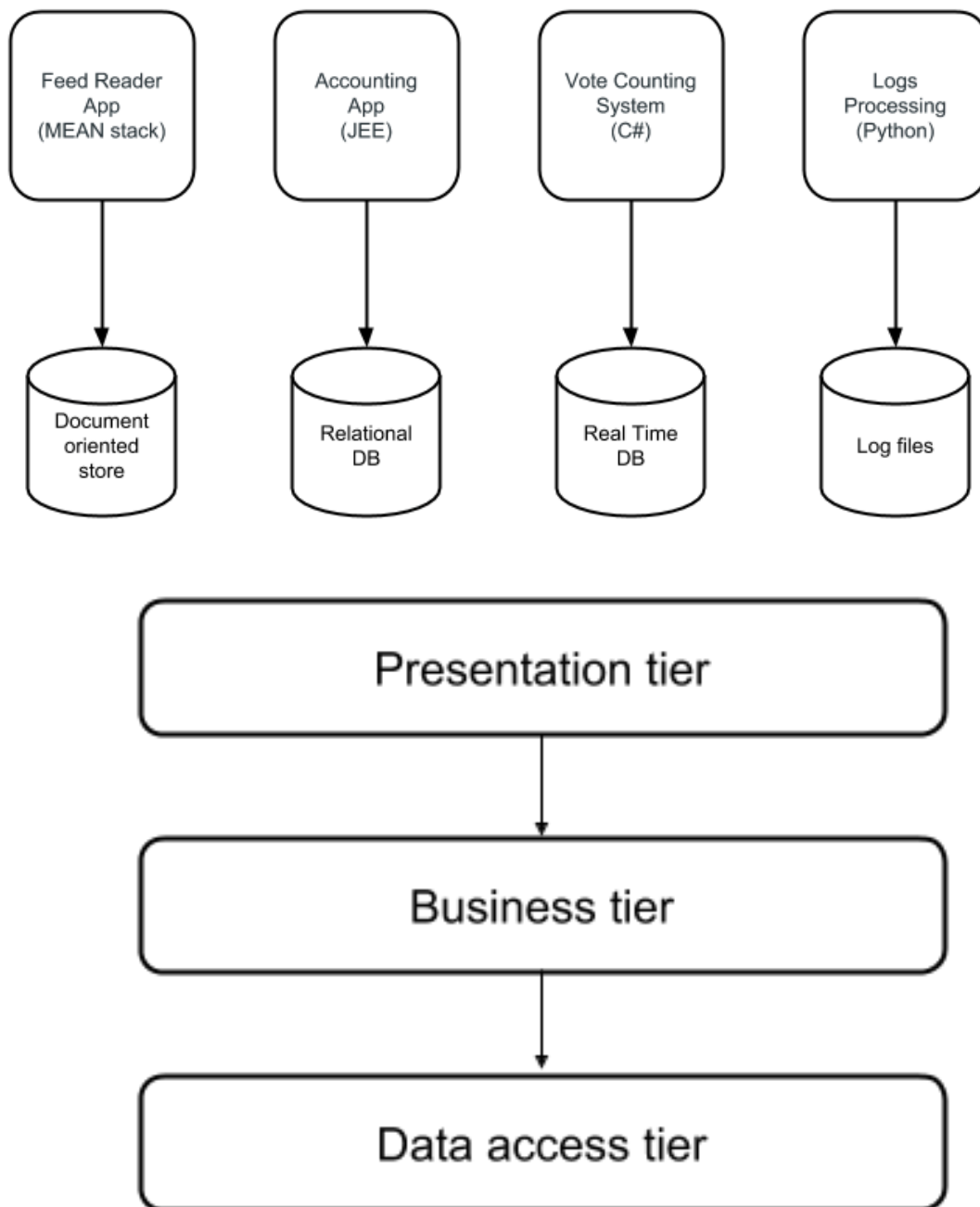


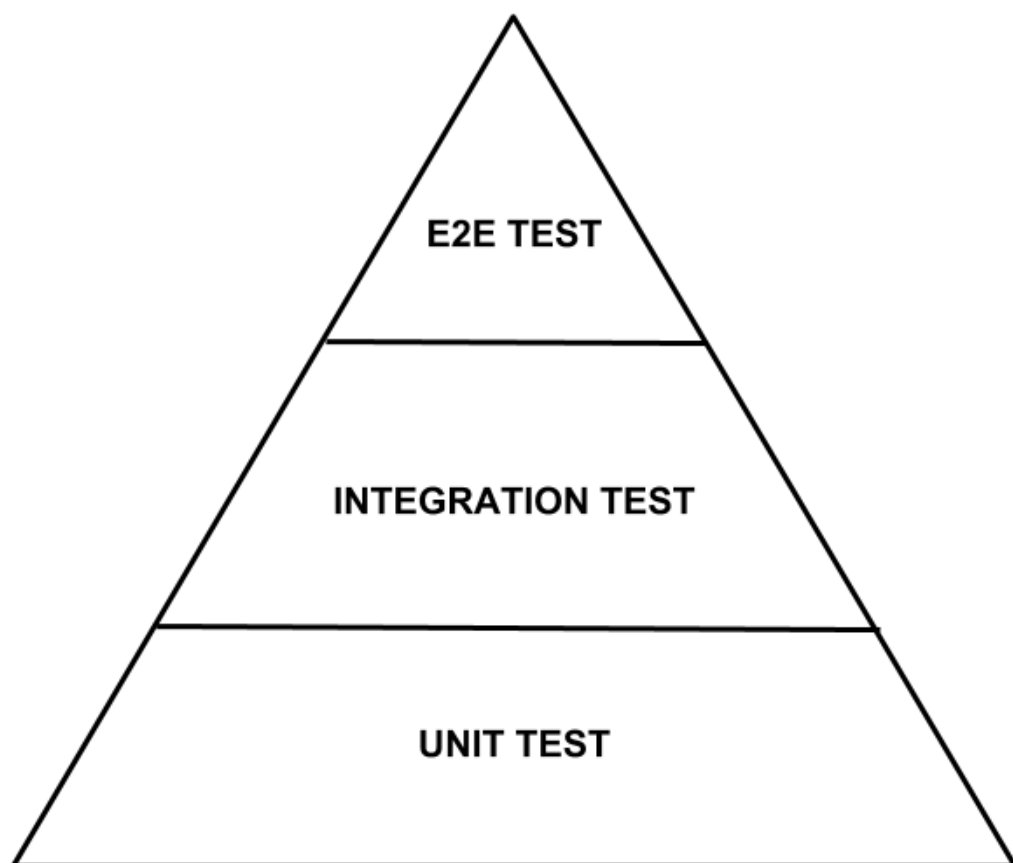
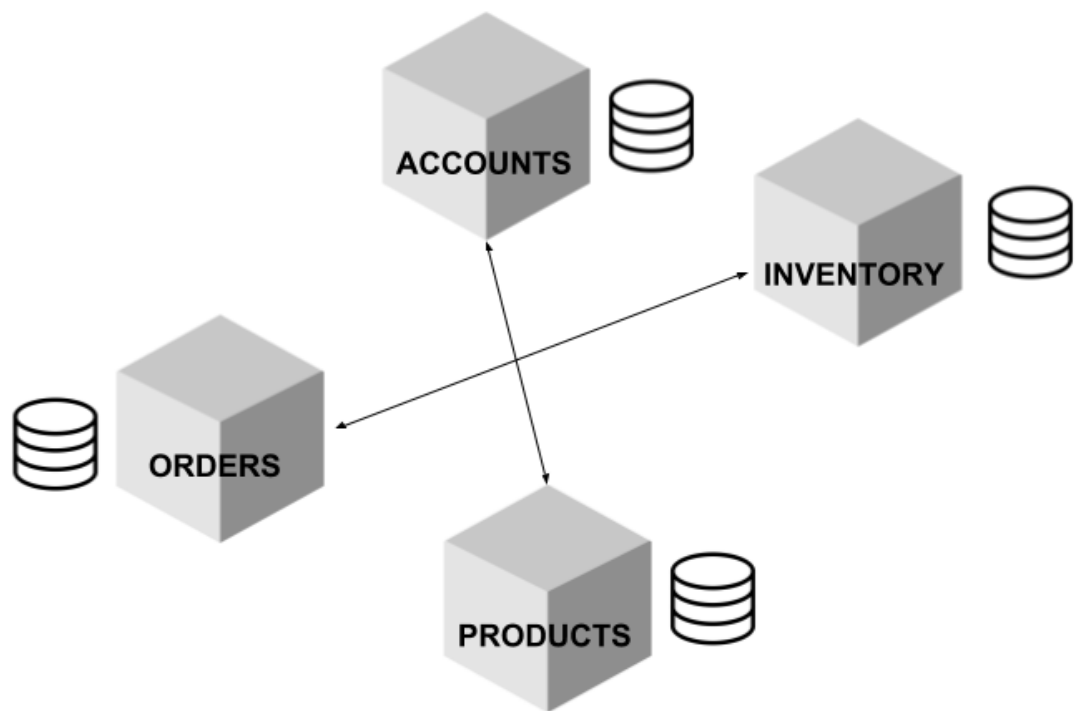
```

2018-05-16 12:08:00.511 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=401343844, currency='USD', amount=1582.66, accountType='SAVING', accountNumber='3550891500', description='Payroll march 2018', firstLastName='JOHN SMITH')) into (PayrollToIdentification=401343844, currency='USD', amount=1582.66, accountType='SAVING', accountNumber='3550891500', description='PAYROLL MARCH 2018', firstLastName='JOHN SMITH'))
2018-05-16 12:08:00.511 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1713430133, currency='USD', amount=941.21, accountType='SAVING', accountNumber='2208993002', description='PAYROLL MARCH 2018', firstLastName='CARO MADAME')) into (PayrollToIdentification=1713430133, currency='USD', amount=941.21, accountType='SAVING', accountNumber='2208993002', description='PAYROLL MARCH 2018', firstLastName='CARO MADAME'))
2018-05-16 12:08:00.511 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1104447619, currency='USD', amount=725.2, accountType='SAVING', accountNumber='2203128508', description='Payroll march 2018', firstLastName='MADALINE RODRIGUES')) into (PayrollToIdentification=1104447619, currency='USD', amount=725.2, accountType='SAVING', accountNumber='2203128508', description='PAYROLL MARCH 2018', firstLastName='MADALINE RODRIGUES'))
2018-05-16 12:08:00.511 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=805676117, currency='USD', amount=433.79, accountType='SAVING', accountNumber='5464013600', description='PAYROLL MARCH 2018', firstLastName='BELEN SALAS')) into (PayrollToIdentification=805676117, currency='USD', amount=433.79, accountType='SAVING', accountNumber='5464013600', description='PAYROLL MARCH 2018', firstLastName='BELEN SALAS'))
2018-05-16 12:08:00.511 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1717654933, currency='USD', amount=1269.1, accountType='SAVING', accountNumber='5497217100', description='Payroll march 2018', firstLastName='MARIAH CARREY')) into (PayrollToIdentification=1717654933, currency='USD', amount=1269.1, accountType='SAVING', accountNumber='5497217100', description='PAYROLL MARCH 2018', firstLastName='MARIAH CARREY'))
2018-05-16 12:08:00.511 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1102362626, currency='USD', amount=1087.8, accountType='SAVING', accountNumber='2200376305', description='Payroll march 2018', firstLastName='ALICIA SILVERSTON')) into (PayrollToIdentification=1102362626, currency='USD', amount=1087.8, accountType='SAVING', accountNumber='2200376305', description='PAYROLL MARCH 2018', firstLastName='ALICIA SILVERSTON'))
2018-05-16 12:08:00.512 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1718735793, currency='USD', amount=906.5, accountType='SAVING', accountNumber='6048977500', description='Payroll march 2018', firstLastName='SHAKIRA VIZUETE')) into (PayrollToIdentification=1718735793, currency='USD', amount=906.5, accountType='SAVING', accountNumber='6048977500', description='PAYROLL MARCH 2018', firstLastName='SHAKIRA VIZUETE'))
2018-05-16 12:08:00.512 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1345644970, currency='USD', amount=494.9, accountType='SAVING', accountNumber='6099018000', description='Payroll march 2018', firstLastName='ALBERTO SALAZAR')) into (PayrollToIdentification=1345644970, currency='USD', amount=494.9, accountType='SAVING', accountNumber='6099018000', description='PAYROLL MARCH 2018', firstLastName='ALBERTO SALAZAR'))
2018-05-16 12:08:00.512 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=604444602, currency='USD', amount=1676.4, accountType='SAVING', accountNumber='5524787700', description='PAYROLL MARCH 2018', firstLastName='CHARLES DARWIN')) into (PayrollToIdentification=604444602, currency='USD', amount=1676.4, accountType='SAVING', accountNumber='5524787700', description='PAYROLL MARCH 2018', firstLastName='CHARLES DARWIN'))
2018-05-16 12:08:00.530 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=157777593, currency='USD', amount=3229.75, accountType='SAVING', accountNumber='3033235300', description='Payroll march 2018', firstLastName='RENE ENRIQUEZ')) into (PayrollToIdentification=157777593, currency='USD', amount=3229.75, accountType='SAVING', accountNumber='3033235300', description='PAYROLL MARCH 2018', firstLastName='RENE ENRIQUEZ'))
2018-05-16 12:08:00.530 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1777705472, currency='USD', amount=2061.27, accountType='SAVING', accountNumber='3125662300', description='Payroll march 2018', firstLastName='PACKPUB BOOKS')) into (PayrollToIdentification=1777705472, currency='USD', amount=2061.27, accountType='SAVING', accountNumber='3125662300', description='PAYROLL MARCH 2018', firstLastName='PACKPUB BOOKS'))
2018-05-16 12:08:00.524 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1999353121, currency='USD', amount=906.5, accountType='SAVING', accountNumber='2203118265', description='PAYROLL MARCH 2018', firstLastName='PAUL SAM')) into (PayrollToIdentification=1999353121, currency='USD', amount=906.5, accountType='SAVING', accountNumber='2203118265', description='PAYROLL MARCH 2018', firstLastName='PAUL SAM'))

2018-05-16 12:08:00.524 INFO 44741 [ main] c.p.payrollprocess.PayRollItemProcessor : Transforming (PayrollToIdentification=1878363820, currency='USD', amount=1838.3, accountType='SAVING', accountNumber='4837838200', description='PAYROLL MARCH 2018', firstLastName='LUKE SKYW')) into (PayrollToIdentification=1878363820, currency='USD', amount=1838.3, accountType='SAVING', accountNumber='4837838200', description='PAYROLL MARCH 2018', firstLastName='LUKE SKYW'))
2018-05-16 12:08:00.533 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : >>>> PAY ROLL JOB FINISHED!
2018-05-16 12:08:00.537 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=401343844, currency='USD', amount=1582.66, accountType='SAVING', accountNumber='3550891500', description='PAYROLL MARCH 2018', firstLastName='JOHN SMITH')> in the database.
2018-05-16 12:08:00.537 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1713430133, currency='USD', amount=941.21, accountType='SAVING', accountNumber='2208993002', description='PAYROLL MARCH 2018', firstLastName='CARO MADAME')> in the database.
2018-05-16 12:08:00.538 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1104447619, currency='USD', amount=725.2, accountType='SAVING', accountNumber='2203128508', description='PAYROLL MARCH 2018', firstLastName='MADALINE RODRIGUES')> in the database.
2018-05-16 12:08:00.539 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=805676117, currency='USD', amount=433.79, accountType='SAVING', accountNumber='5464013600', description='PAYROLL MARCH 2018', firstLastName='BELEN SALAS')> in the database.
2018-05-16 12:08:00.542 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1717654933, currency='USD', amount=1269.1, accountType='SAVING', accountNumber='5497217100', description='PAYROLL MARCH 2018', firstLastName='MARIAH CARREY')> in the database.
2018-05-16 12:08:00.542 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1102362626, currency='USD', amount=1087.8, accountType='SAVING', accountNumber='2200376305', description='PAYROLL MARCH 2018', firstLastName='ALICIA SILVERSTON')> in the database.
2018-05-16 12:08:00.542 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1718735793, currency='USD', amount=906.5, accountType='SAVING', accountNumber='6048977500', description='PAYROLL MARCH 2018', firstLastName='SHAKIRA VIZUETE')> in the database.
2018-05-16 12:08:00.543 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1345644970, currency='USD', amount=494.9, accountType='SAVING', accountNumber='6099018000', description='PAYROLL MARCH 2018', firstLastName='ALBERTO SALAZAR')> in the database.
2018-05-16 12:08:00.543 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=604444602, currency='USD', amount=1676.4, accountType='SAVING', accountNumber='5524787700', description='PAYROLL MARCH 2018', firstLastName='CHARLES DARWIN')> in the database.
2018-05-16 12:08:00.543 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=157777593, currency='USD', amount=3229.75, accountType='SAVING', accountNumber='3033235300', description='PAYROLL MARCH 2018', firstLastName='RENE ENRIQUEZ')> in the database.
2018-05-16 12:08:00.543 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1777705472, currency='USD', amount=2061.27, accountType='SAVING', accountNumber='3125662300', description='PAYROLL MARCH 2018', firstLastName='PACKPUB BOOKS')> in the database.
2018-05-16 12:08:00.543 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1999353121, currency='USD', amount=906.5, accountType='SAVING', accountNumber='2203118265', description='PAYROLL MARCH 2018', firstLastName='PAUL SAM')> in the database.
2018-05-16 12:08:00.543 INFO 44741 [ main] c.p.p.JobCompletionPayRollListener : Found <PayrollToIdentification=1878363820, currency='USD', amount=1838.3, accountType='SAVING', accountNumber='4837838200', description='PAYROLL MARCH 2018', firstLastName='LUKE SKYW')> in the database.
2018-05-16 12:08:00.551 INFO 44741 [ main] o.s.b.c.l.support.SimpleJobLauncher : Job: [FlowJob: {name=importPayRollJob}] completed with the following parameters: [{run.id=1}] and the following status: [COMPLETED]
  
```

## Chapter 8





Branch: master ▾

[spring-architectures-config-server](#) / configuration-demo.properties



enriquezrene Update configuration-demo.properties

1 contributor

2 lines (1 sloc) | 45 Bytes

```
1 configuration.dynamicValue=Old Dynamic Value
```

Branch: master ▾

[spring-architectures-config-server](#) / configuration-demo.properties

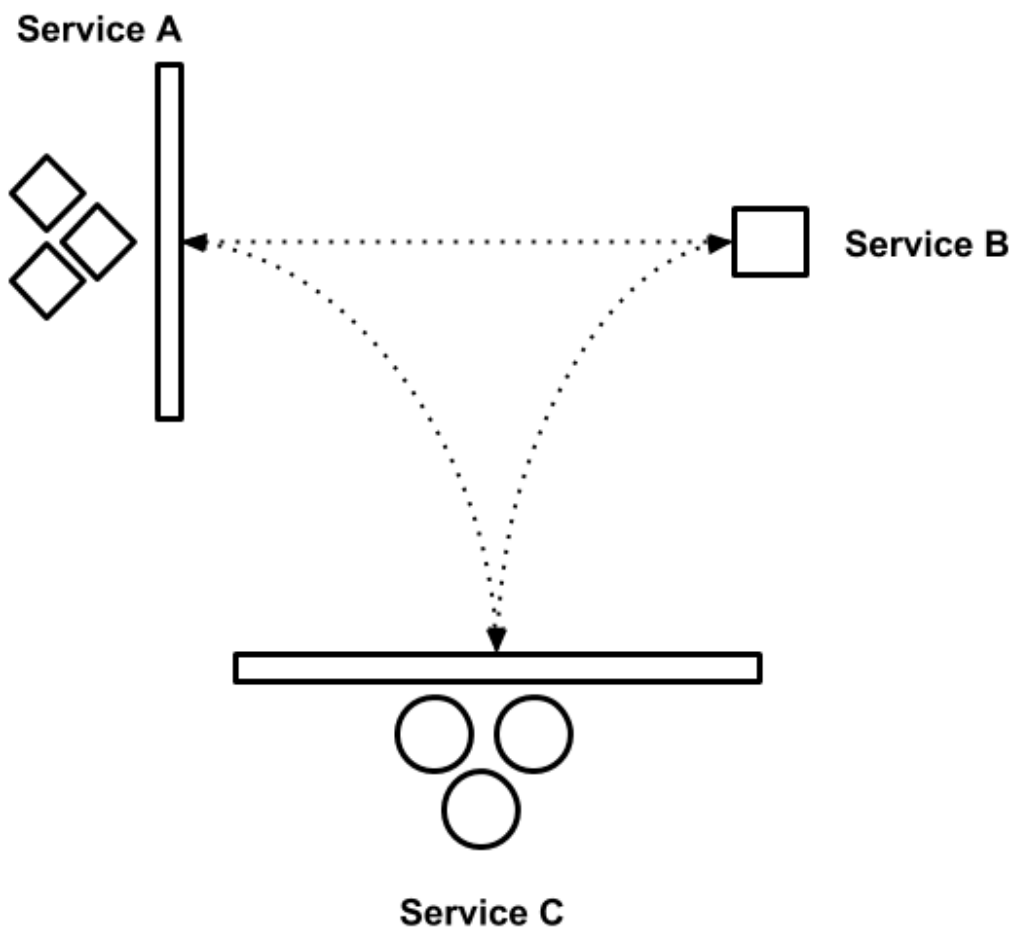


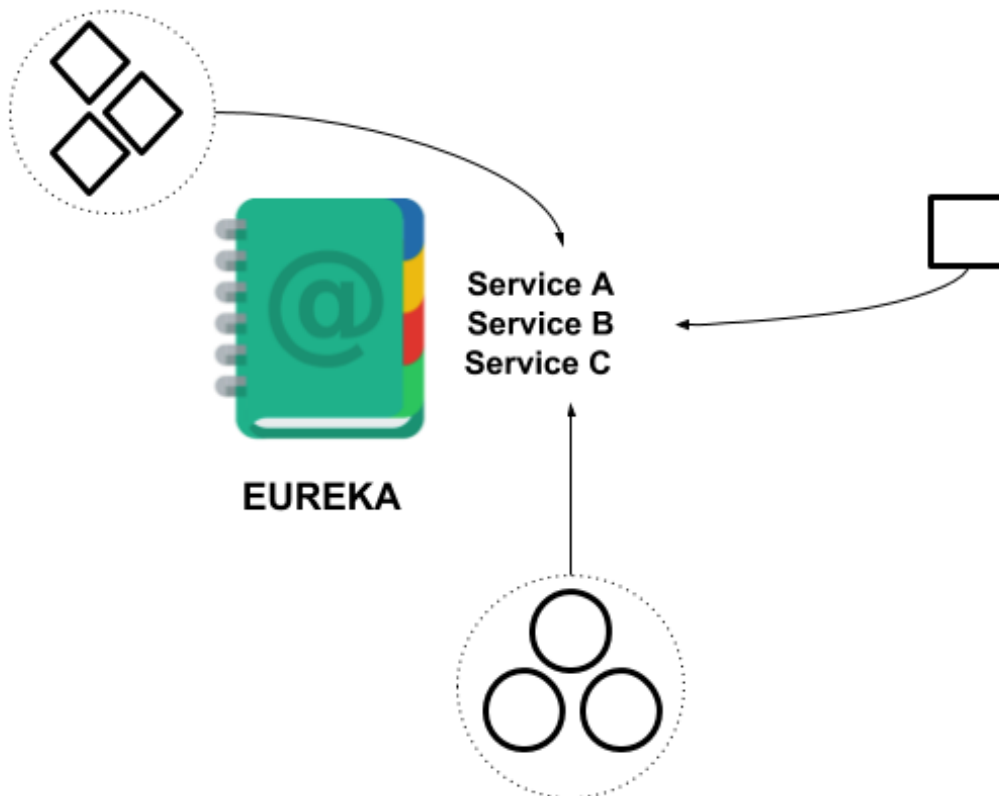
enriquezrene Update configuration-demo.properties

1 contributor

2 lines (1 sloc) | 45 Bytes

```
1 configuration.dynamicValue=New Dynamic Value
```





localhost:8901

spring Eureka

HOME LAST 1000 SINCE STARTUP

### System Status

|             |         |                          |                           |
|-------------|---------|--------------------------|---------------------------|
| Environment | test    | Current time             | 2018-06-13T00:43:29 -0500 |
| Data center | default | Uptime                   | 00:28                     |
|             |         | Lease expiration enabled | true                      |
|             |         | Renews threshold         | 1                         |
|             |         | Renews (last min)        | 2                         |

### DS Replicas

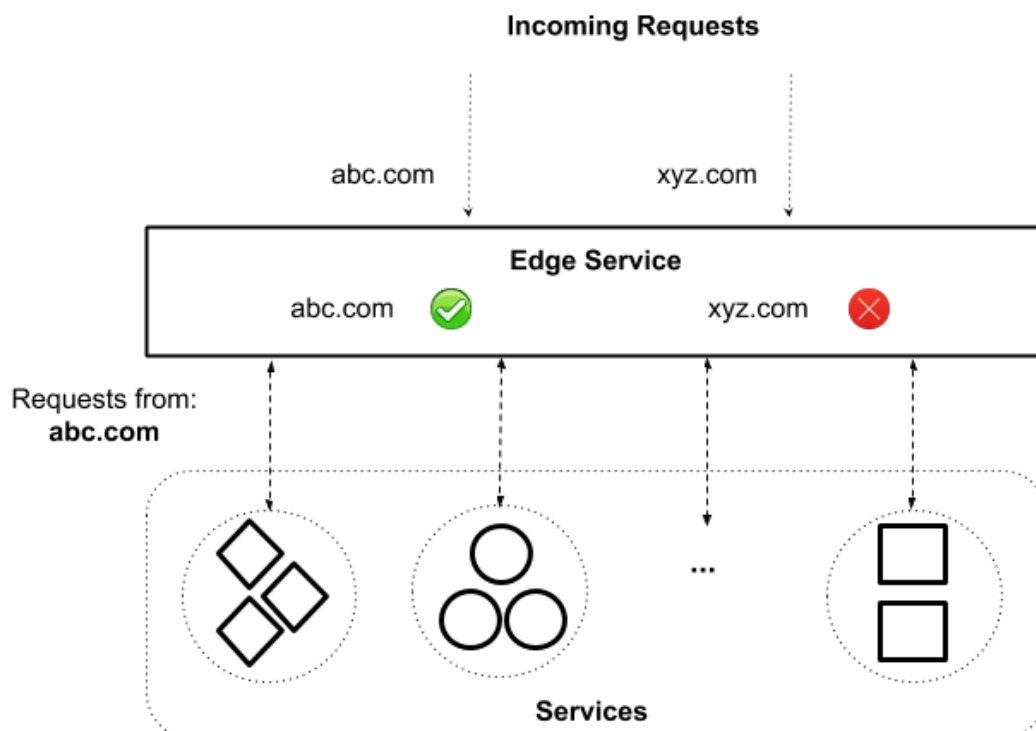
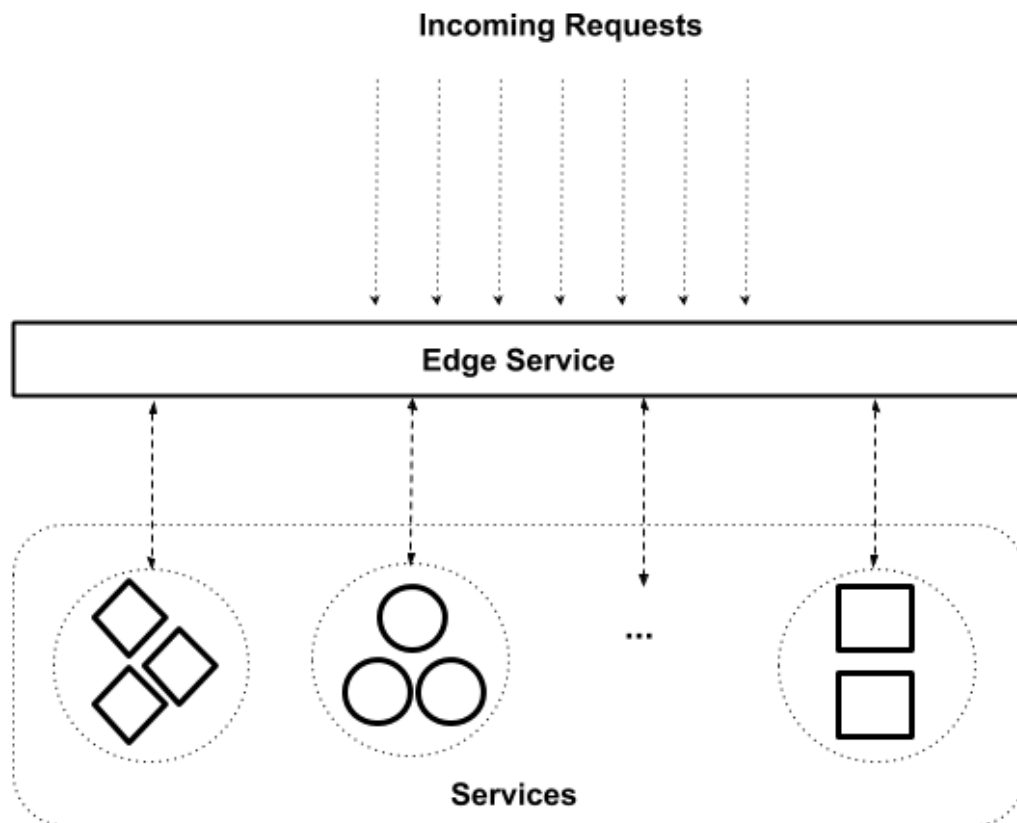
localhost

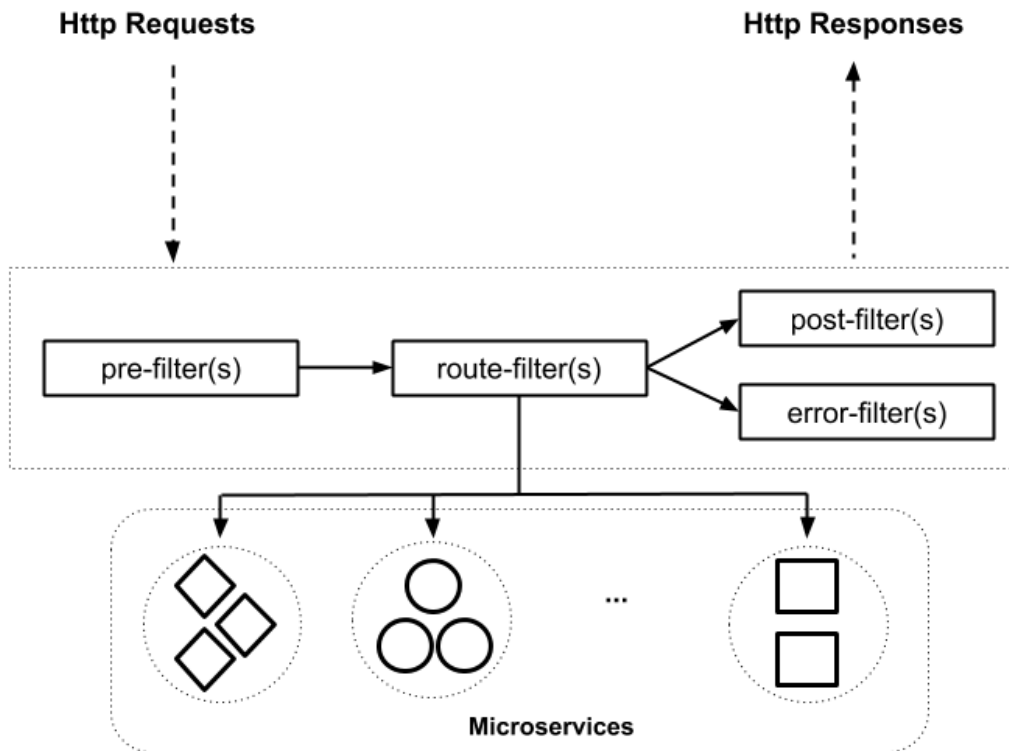
### Instances currently registered with Eureka

| Application            | AMIs | Availability Zones | Status |
|------------------------|------|--------------------|--------|
| No instances available |      |                    |        |

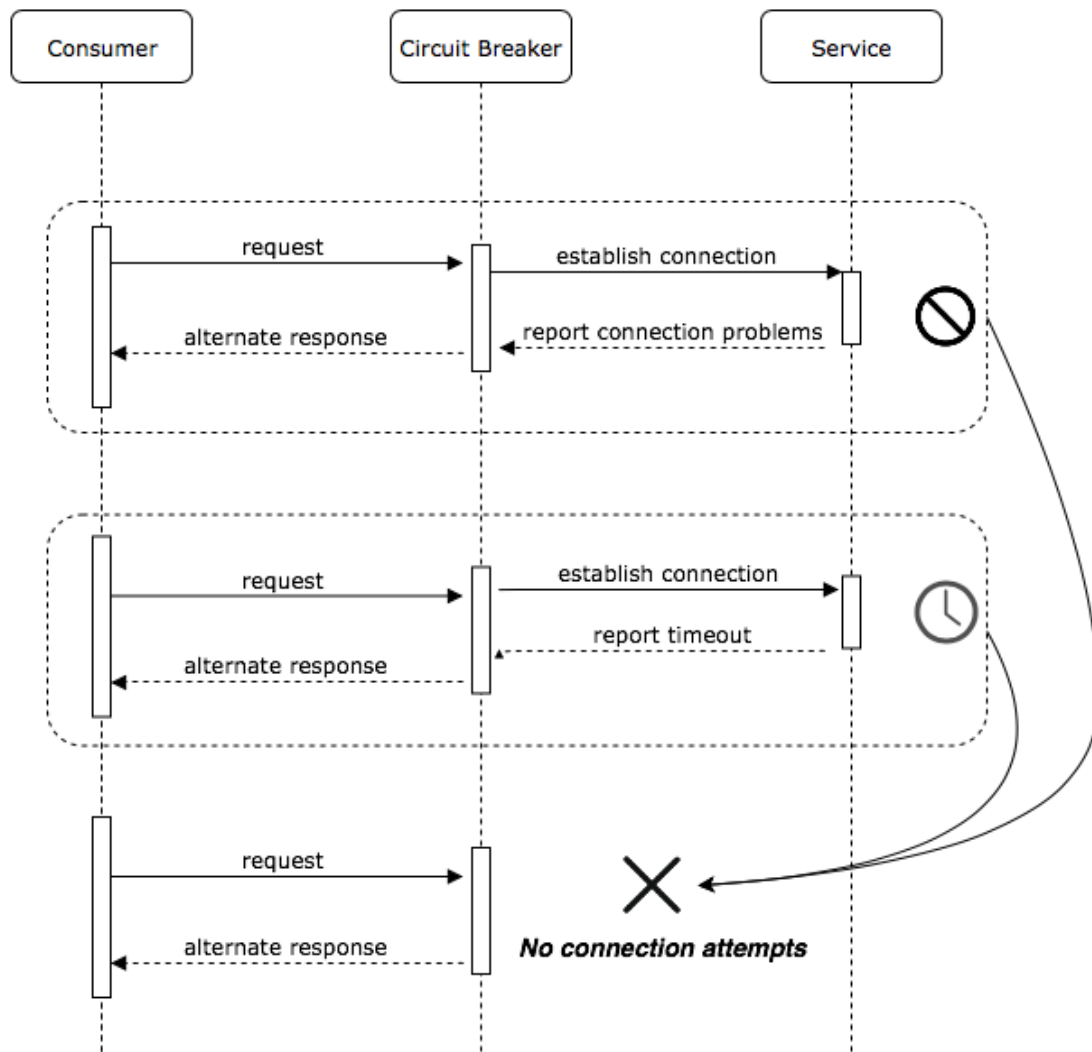
### Instances currently registered with Eureka

| Application    | AMIs    | Availability Zones | Status                                     |
|----------------|---------|--------------------|--------------------------------------------|
| MOVIES-SERVICE | n/a (1) | (1)                | UP (1) - 192.168.100.4:movies-service:8081 |

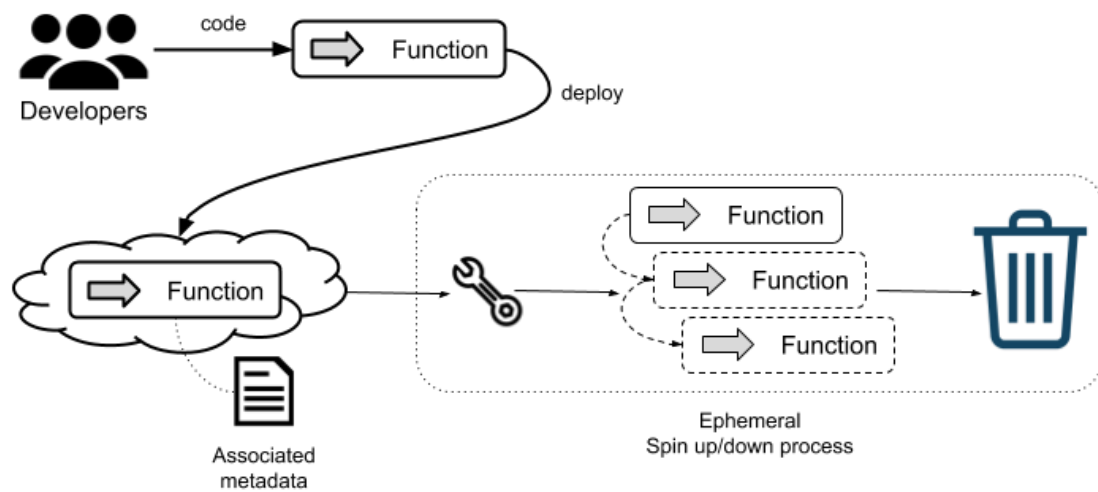
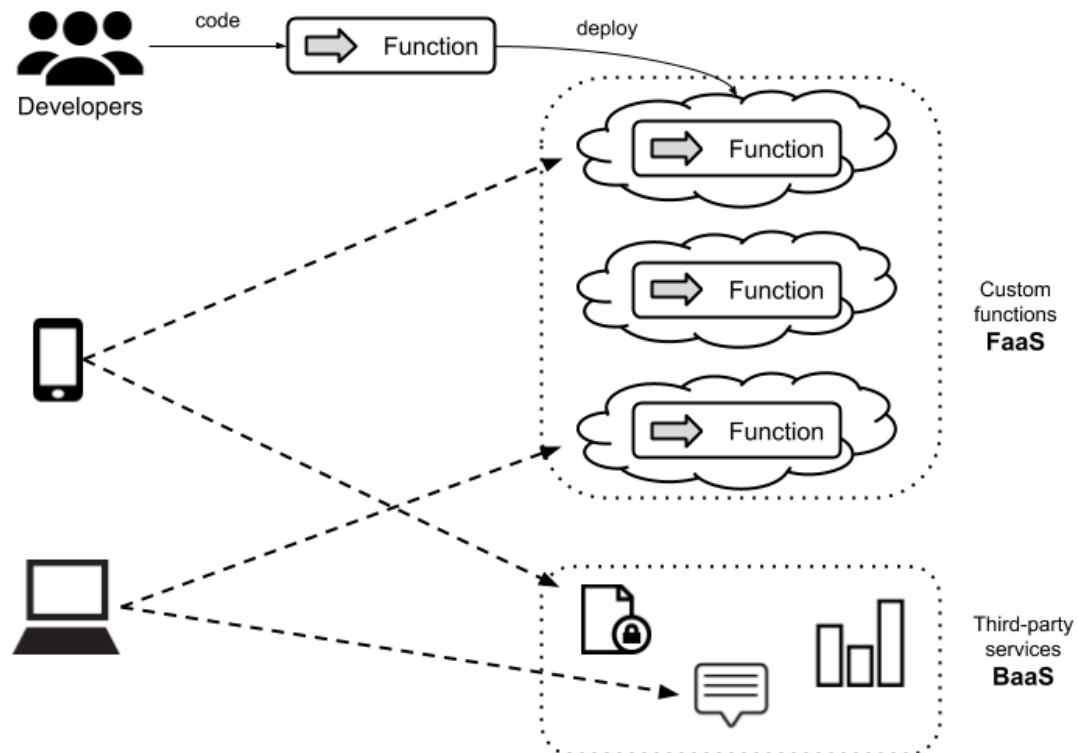


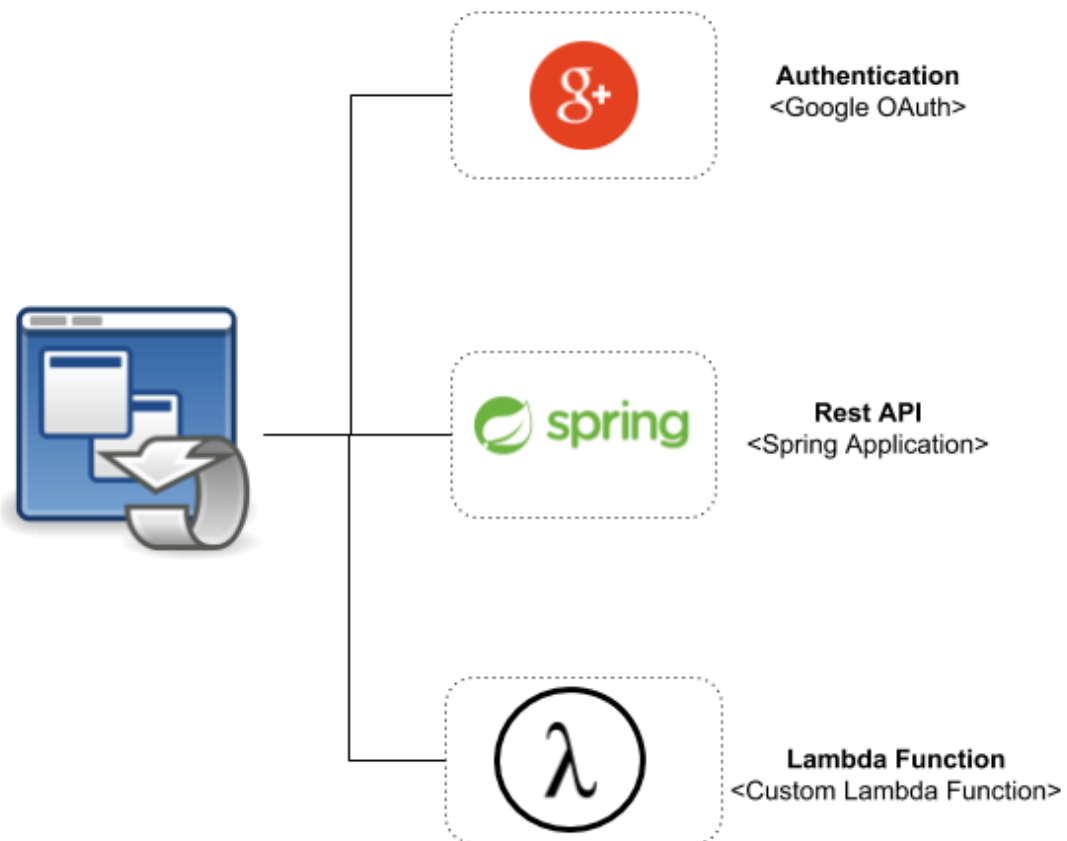
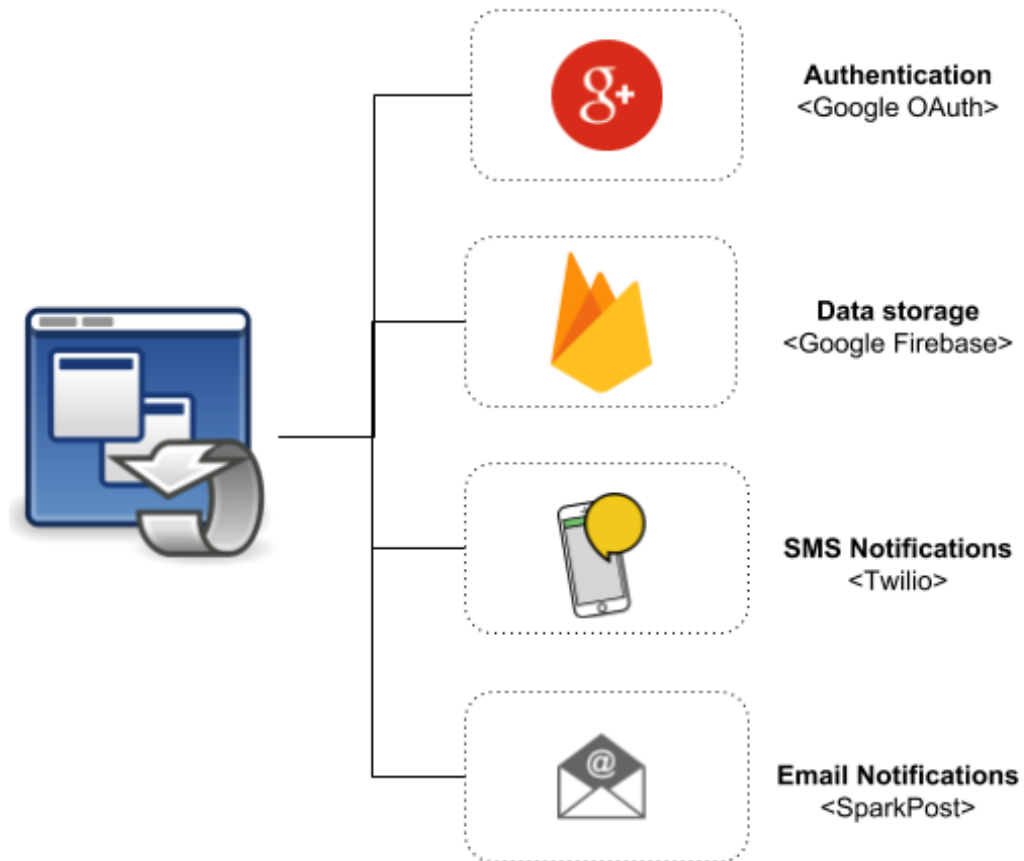


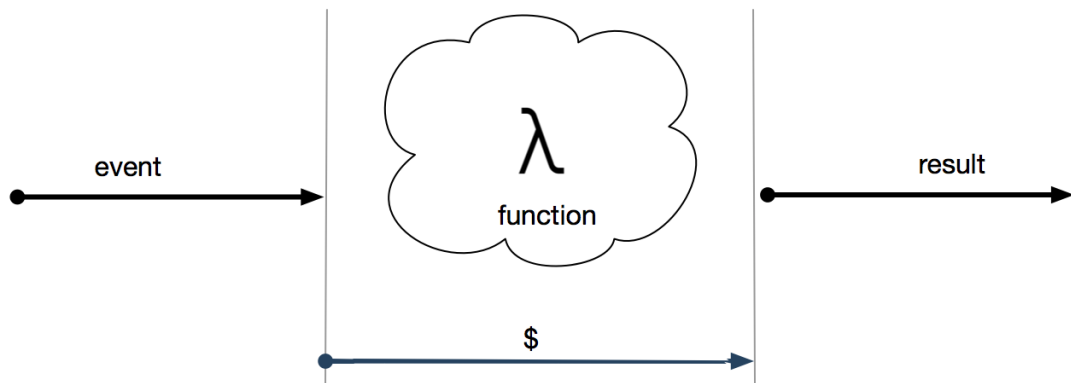




## Chapter 9







Secure <https://start.spring.io>

## SPRING INITIALIZR bootstrap your application now

Generate a  with  and Spring Boot

### Project Metadata

Artifact coordinates

Group

Artifact

### Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Selected Dependencies

% + ⌂

Don't know what to look for? Want more options? [Switch to the full version.](#)

➔ **mask-accounts** tree

```
.
├── mvnw
├── mvnw.cmd
├── pom.xml
└── src
    ├── main
    │   ├── java
    │   │   ├── com
    │   │   │   ├── packtpub
    │   │   │   │   ├── maskaccounts
    │   │   │   │   └── MaskAccountsApplication.java
    │   └── resources
    │       └── application.properties
    └── test
        ├── java
        │   ├── com
        │   │   ├── packtpub
        │   │   │   ├── maskaccounts
        │   │   │   └── MaskAccountsApplicationTests.java
```

```

[INFO] Scanning for projects...
[INFO]
[INFO] --- spring-boot:2.7.0:run (default-cli) @spring-boot ---
[INFO] Spring Boot :: (v1.5.11.RELEASE)

2018-04-09 17:27:57.799 INFO 32748 [main] c.g.p.s.MaskAccountsApplication : Starting MaskAccountsApplication v0.0.1-SNAPSHOT on Alberto's MacBook-Pro.local with PID 32748 (/Users/alberto/TRABAJO/REPOSITORIES/masteringArchitectures-with-spring/chapter-9-serverless/mask-accounts/target/mask-accounts-0.0.1-SNAPSHOT.jar started by albertos /Users/alberto/TRABAJO/REPOSITORIES/masteringArchitectures-with-spring/chapter-9-serverless/mask-accounts/)
2018-04-09 17:27:57.763 INFO 32748 [main] c.g.p.s.MaskAccountsApplication : No active profile set, falling back to default profiles: default
2018-04-09 17:27:58.058 ECT 2018; root of context hierarchy
WARNING: Illegal reflective access by org.springframework.cglib.core.ReflectUtils$1 (file:/Users/alberto/.m2/repository/org/springframework/spring-core/4.3.15.RELEASE/spring-core-4.3.15.RELEASE.jar) to method java.lang.String.getBytes(java.lang.Object,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of org.springframework.cglib.core.ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
2018-04-09 17:27:58.795 INFO 32748 [main] f.a.AutoTearDownAnnotationBeanPostProcessor : JSR-330 'javax.inject.Inject' annotation found and supported for autowiring
2018-04-09 17:27:58.163 INFO 32748 [main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat initialized with port(s): 8888 (http)
2018-04-09 17:27:58.190 INFO 32748 [main] o.s.apache.catalina.core.StandardService : Starting service http
2018-04-09 17:27:58.190 INFO 32748 [main] o.s.apache.catalina.core.StandardEngine : Starting Servlet Engine: Apache Tomcat/8.5.29
2018-04-09 17:27:58.236 INFO 32748 [-ost-startStop-1] o.s.apache.catalina.loader.WebappLoader : Unknown loaderjdk.internal.loader.ClassLoaders$PlatformClassLoader@5cb5e98c classjdk.internal.loader.ClassLoaders$PlatformClassLoader
2018-04-09 17:27:58.261 INFO 32748 [-ost-startStop-1] o.s.c.e.c.Tomcat.[localhost]:/[] : Initializing Spring embedded WebApplicationContext
2018-04-09 17:27:58.282 INFO 32748 [-ost-startStop-1] o.s.web.context.ContextLoader : Root WebApplicationContext: initialization completed in 1230 ms
2018-04-09 17:27:58.488 INFO 32748 [-ost-startStop-1] o.s.b.w.servlet.ServletRegistrationBean : Mapping servlet: 'dispatcherServlet' to [/]
2018-04-09 17:27:58.511 INFO 32748 [-ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'characterEncodingFilter' to: [/]*
2018-04-09 17:27:58.541 INFO 32748 [-ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'hiddenMethodMethodFilter' to: [/]*
2018-04-09 17:27:58.541 INFO 32748 [-ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: '.HiddenMethodFilter' to: [/]*
2018-04-09 17:27:58.541 INFO 32748 [-ost-startStop-1] o.s.b.w.servlet.FilterRegistrationBean : Mapping filter: 'requestContextFilter' to: [/]*
2018-04-09 17:27:58.728 INFO 32748 [-ost-startStop-1] s.w.s.h.s.RequestMappingHandlerAdapter : Looking for @ControllerAdvice: org.springframework.boot.context.embedded.AnnotationConfigEmbeddedWebApplicationContext
2018-04-09 17:27:58.744 startUp date [Mon Apr 09 17:27:58 ECT 2018]; root of context hierarchy
2018-04-09 17:27:58.788 INFO 32748 [-ost-startStop-1] s.w.s.h.s.RequestMappingHandlerAdapter : Mapped [{"(error),produces=[text/html]}] onto public org.springframework.web.servlet.ModelAndView org.springframework.web.servlet.mvc.annotation.AnnotationMethodProcessingHandler.handle(HttpServletRequest,HttpServletResponse)
2018-04-09 17:27:58.789 INFO 32748 [main] s.w.s.h.s.RequestMappingHandlerAdapter : Mapped [{"(error)}] onto public org.springframework.http.ResponseEntity<java.util.Map<java.lang.String,java.lang.Object>> org.springframework.boot.autoconfigure.web.BasicExceptionHandler.error(javax.servlet.http.HttpServletRequest)
2018-04-09 17:27:58.840 INFO 32748 [main] s.o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/webjars/*] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2018-04-09 17:27:58.816 INFO 32748 [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/]** onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2018-04-09 17:27:58.849 INFO 32748 [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favicon.ico] onto handler of type [class org.springframework.web.servlet.resource.ResourceHttpRequestHandler]
2018-04-09 17:27:58.859 INFO 32748 [main] o.s.c.f.w.flux.FunctionHandlerMapping : FunctionCatalog: org.springframework.cloud.function.config.ConfigFunctionCatalogAutoConfiguration$BeanFactoryFunctionCatalog#fab223
2018-04-09 17:27:58.832 INFO 32748 [main] o.s.c.f.w.flux.FunctionHandlerMapping : Mapped [{"(/**),methods=[GET]}] onto public org.springframework.reactivestreams.Publisher<> org.springframework.cloud.function.wire.plugflux.FunctionCatalog.get(org.springframework.web.context.request.WebRequest)
2018-04-09 17:27:58.859 INFO 32748 [main] o.s.c.f.w.flux.FunctionHandlerMapping : Mapped [{"(/**),methods=[POST]}] onto public org.springframework.reactivestreams.Publisher<> org.springframework.cloud.function.wire.plugflux.FunctionCatalog.get(org.springframework.web.context.request.WebRequest,org.springframework.cloud.function.web FluxRequest<>)
2018-04-09 17:27:58.189 INFO 32748 [main] o.s.c.a.AnnotationBeanExporter : Registering beans for 300 exposure on startup
2018-04-09 17:27:58.217 INFO 32748 [main] s.b.c.e.t.TomcatEmbeddedServletContainer : Tomcat started on port(s): 8888 (http)
2018-04-09 17:27:58.156 INFO 32748 [main] c.g.p.s.MaskAccountsApplication : Started MaskAccountsApplication in 2.787 seconds (JVM running for 5.17)
```

The screenshot shows the AWS Lambda console interface. At the top, there's a navigation bar with the AWS logo, 'Services', 'Resource Groups', and a user profile for 'Alberto Salazar'. Below this, the left sidebar shows 'AWS Lambda' and 'Functions'. The main content area is titled 'Functions (1)' and includes a search bar with the placeholder 'Filter by tags and attributes or search by keyword'. Below the search bar is a table with the following columns: 'Function name', 'Description', 'Runtime', 'Code size', and 'Last Modified'. A single function is listed: 'maskAccounts' with the description 'Spring Cloud Function Adapter for packt Mastering Architecting Spring 5', using 'Java 8' runtime, with a 'Code size' of '26.0 MB', and it was 'Last Modified' '53 minutes ago'.

| Function name | Description                                                             | Runtime | Code size | Last Modified  |
|---------------|-------------------------------------------------------------------------|---------|-----------|----------------|
| maskAccounts  | Spring Cloud Function Adapter for packt Mastering Architecting Spring 5 | Java 8  | 26.0 MB   | 53 minutes ago |

aws

Services
Resources Groups

Alberto Salazar

N. Virginia

Support

Lambda

Functions

maskAccounts

ARN - arn:aws:lambda:us-east-1:

function:maskAccounts

Throttle

Qualifiers

Actions

test

Test

Save

maskAccounts

Execution result: succeeded (logs)

Details

The area below shows the result returned by your function execution. [Learn more](#) about returning results from your function.

```
{
  "value": "*****7979"
}
```

Summary

|                      |                                             |                 |                                      |
|----------------------|---------------------------------------------|-----------------|--------------------------------------|
| Code SHA-256         | MrUvF6UZestMigQq0lBur55md/Ua6VxVnDOj0Dduu8= | Request ID      | 852f9bf5-3e91-11e8-99e4-69fd66d3a9c3 |
| Duration             | 68.61 ms                                    | Billed duration | 100 ms                               |
| Resources configured | 1024 MB                                     | Max memory used | 150 MB                               |

Log output

The area below shows the logging calls in your code. These correspond to a single row within the CloudWatch log group corresponding to this Lambda function. [Click here](#) to view the CloudWatch log group.

```
START RequestId: 852f9bf5-3e91-11e8-99e4-69fd66d3a9c3 Version: $LATEST
END RequestId: 852f9bf5-3e91-11e8-99e4-69fd66d3a9c3
REPORT RequestId: 852f9bf5-3e91-11e8-99e4-69fd66d3a9c3 Duration: 68.61 ms Billed Duration: 100 ms Memory Size: 1024 MB Max Memory Used: 150 MB
```

```
➔ mask-accounts-azure git:(master) x java -jar target/mask-accounts-azure-0.0.1-SNAPSHOT.jar
```

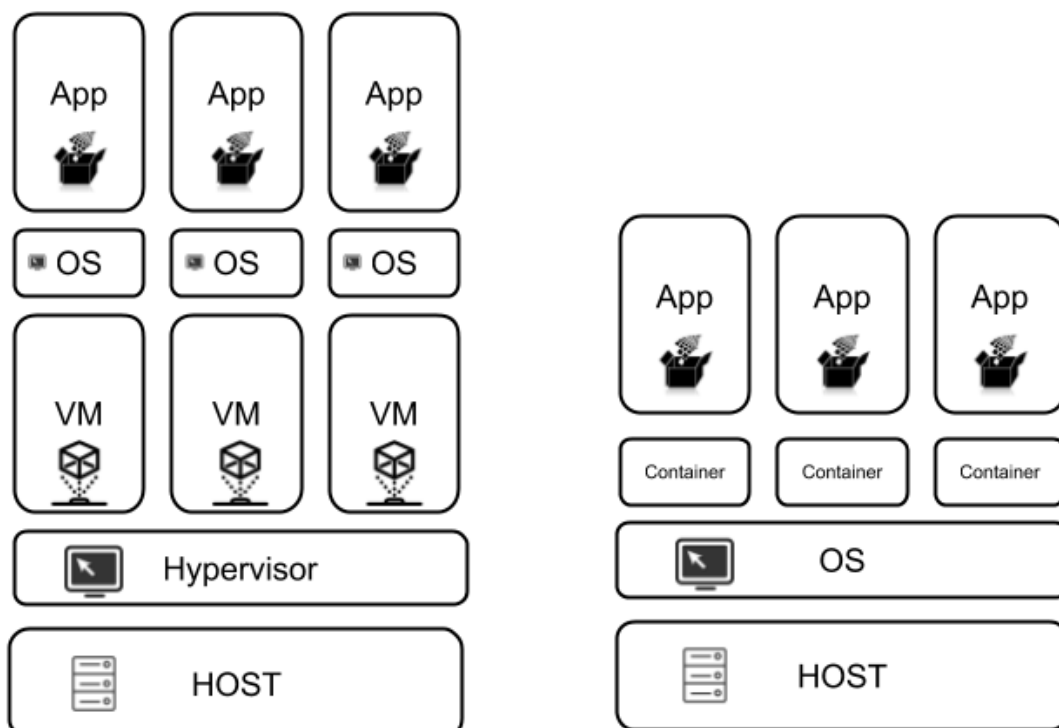
[illegible]

```
To sign in, use a web browser to open the page https://microsoft.com/devicelogin and enter the code FCJJ6BR47 to authenticate.
[
  {
    "cloudName": "AzureCloud",
    "id": "87487b30-19ef-4574-9177-3e24da9f5e70",
    "isDefault": true,
    "name": "Free Trial",
    "state": "Enabled",
    "tenantId": "b1ecec3c-c099-4a0f-9c20-6b2a0848c77e",
    "user": {
      "name": "asalazar@advlatam.com",
      "type": "user"
    }
  }
]
```

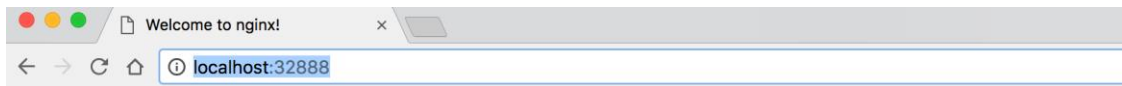
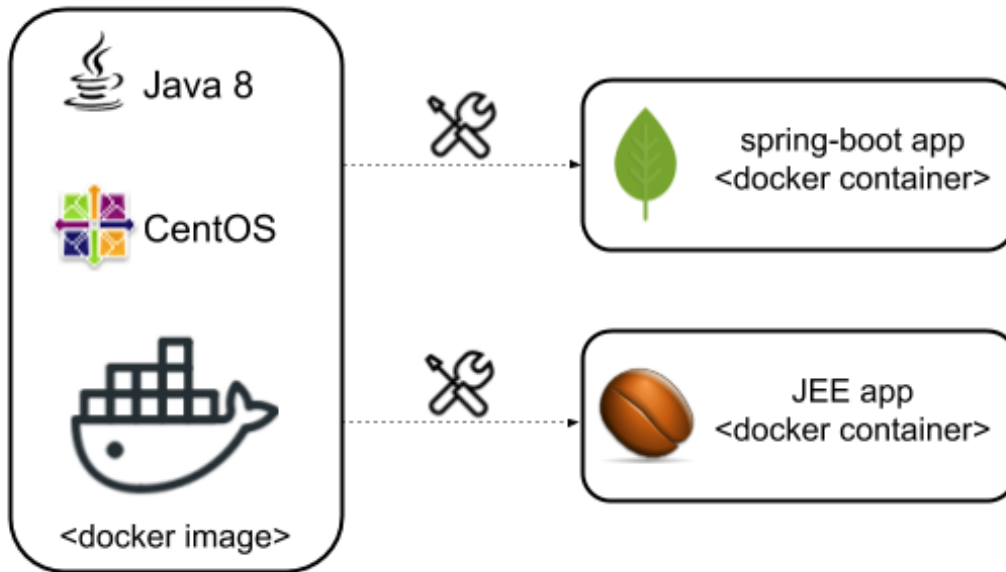
```
[INFO] Step 4 of 4: Deleting deployment package from Azure Storage...
[INFO] Successfully deleted deployment package function-mask-account-azure.20180412191633550.zip
[INFO] Successfully deployed Function App at https://function-mask-account-azure.azurewebsites.net
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 12:59 min
[INFO] Finished at: 2018-04-12T19:17:31-05:00
[INFO] Final Memory: 47M/582M
[INFO] -----

-> mask-accounts-azure git:(master) curl -H "Content-Type: text/plain" localhost:8080/maskAccount -d '{"value": "37567979"}'
{"value": "***7979"}
^C
```

## Chapter 10







## Welcome to nginx!

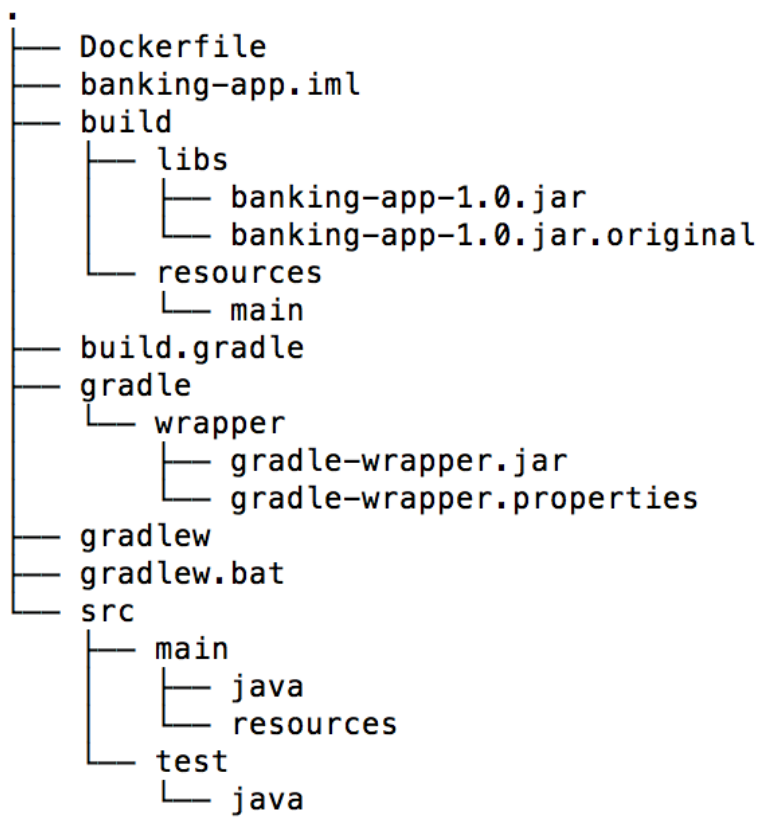
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to [nginx.org](http://nginx.org).  
Commercial support is available at [nginx.com](http://nginx.com).

*Thank you for using nginx.*

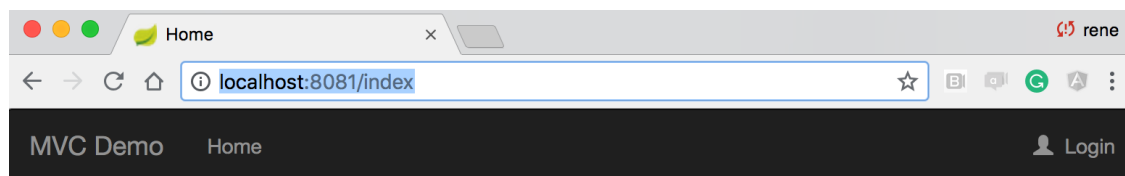
```
MacBook-Pro-de-Rene:~ moe$ docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS        NAMES
d4ce9d0d6c83   nginx    "/bin/bash"             13 seconds ago Up 12 seconds 80/tcp       sharp_ride
MacBook-Pro-de-Rene:~ moe$
```





```
$ docker images
```

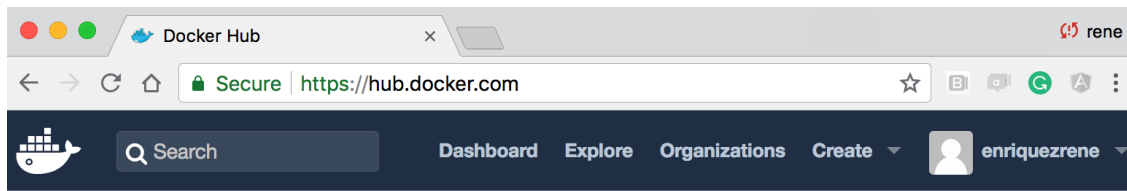
| REPOSITORY  | TAG | IMAGE ID     | CREATED        | SIZE  |
|-------------|-----|--------------|----------------|-------|
| spring-boot | 1.0 | 32897af137ff | 39 seconds ago | 643MB |
| java        | 8   | d23bdf5b1b1b | 19 months ago  | 643MB |



# Home

```
$ docker images
```

| REPOSITORY              | TAG | IMAGE ID     | CREATED        | SIZE  |
|-------------------------|-----|--------------|----------------|-------|
| spring-boot-banking-app | 1.0 | 32897af137ff | 24 seconds ago | 680MB |
| java                    | 8   | d23bdf5b1b1b | 19 months ago  | 643MB |

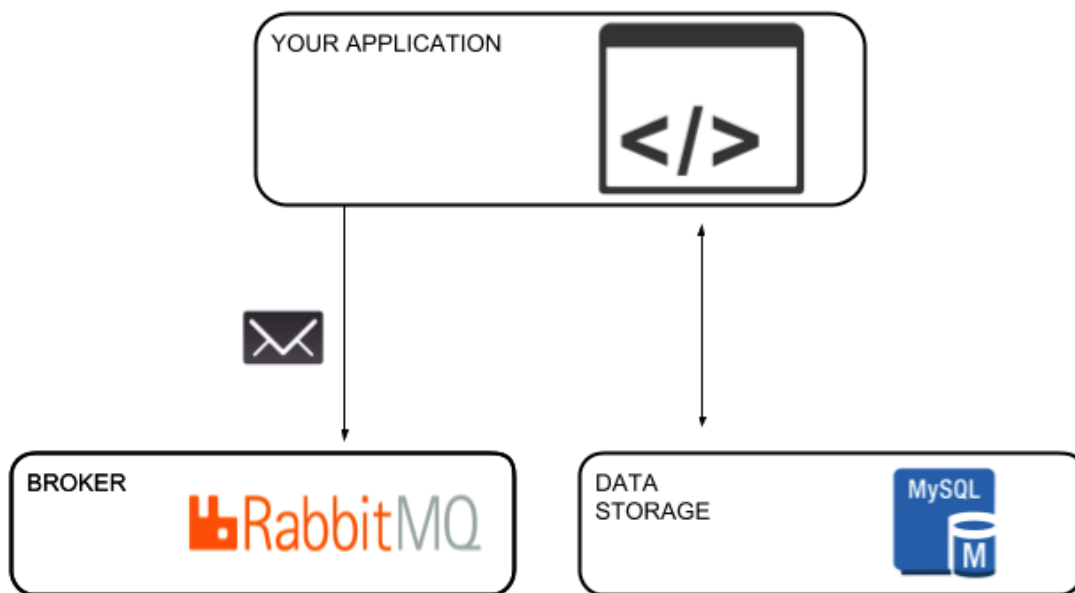


## Repositories

Create Repository +

Type to filter repositories by name

|                                                                                   |                                                       |            |            |                         |
|-----------------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|-------------------------|
|  | <b>enriquezrene/spring-boot-banking-app</b><br>public | 0<br>STARS | 1<br>PULLS | <a href="#">DETAILS</a> |
|-----------------------------------------------------------------------------------|-------------------------------------------------------|------------|------------|-------------------------|



## ORDER

## SERVICE

1

DATA  
STORAGE



2

APPLICATION



### APPLICATION XYZ

WEB APPLICATION

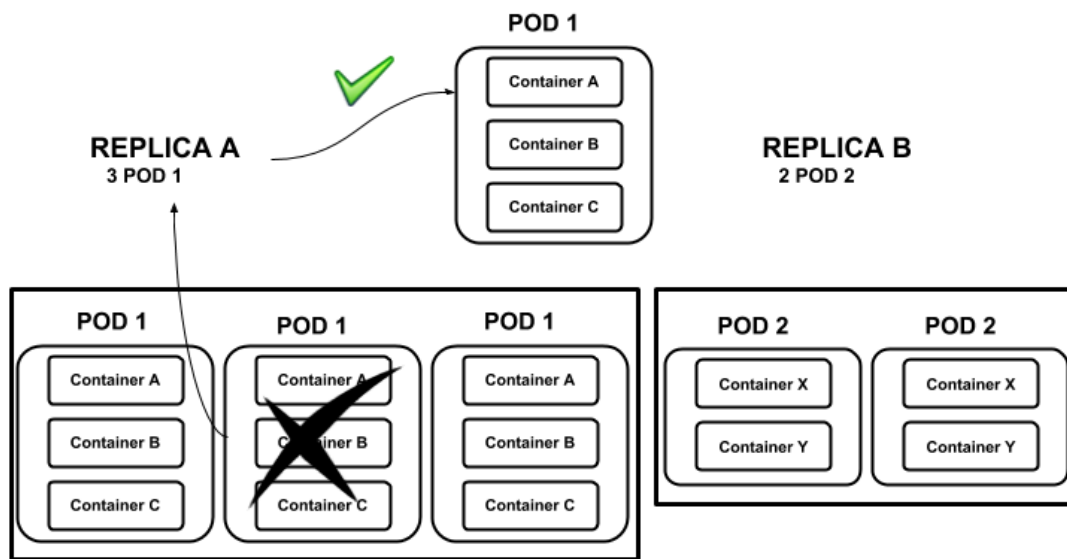


REST API

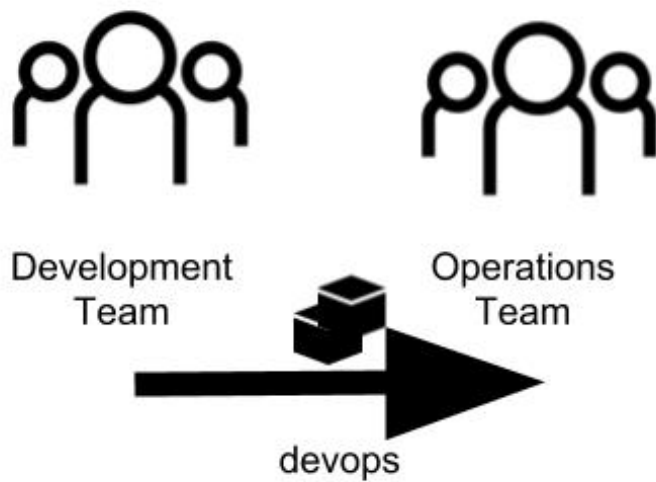


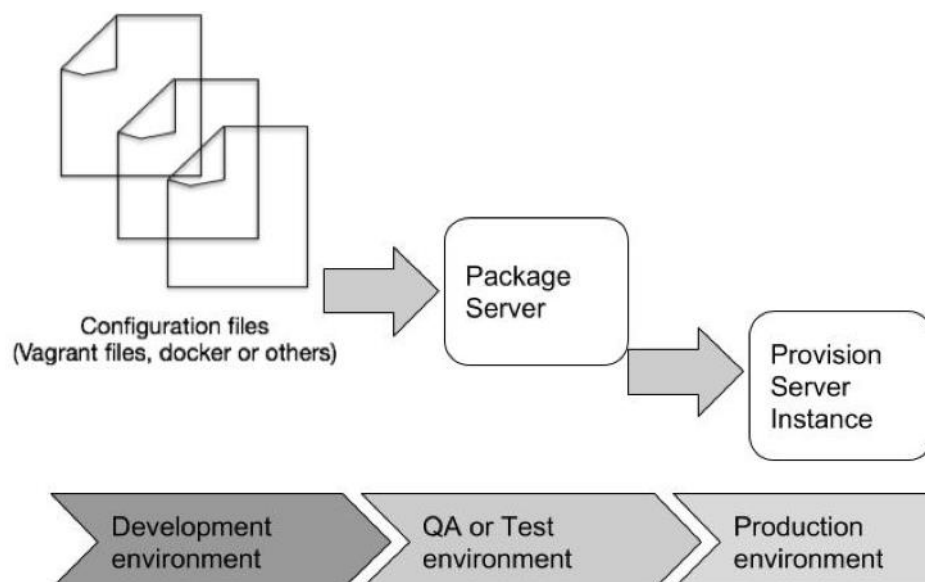
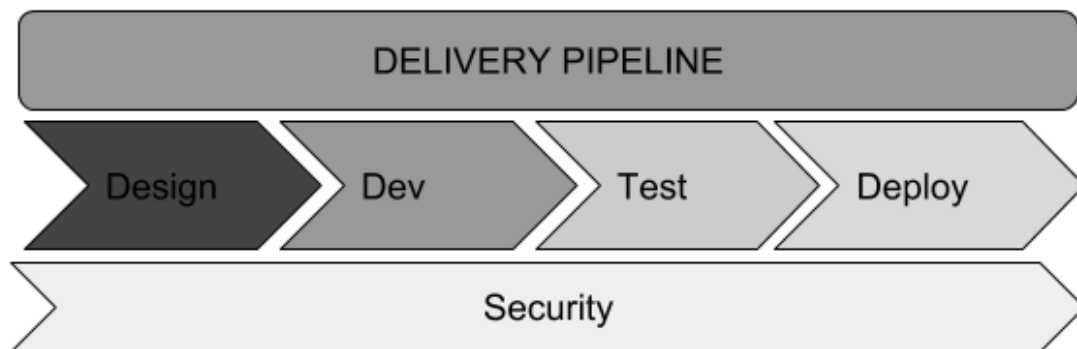
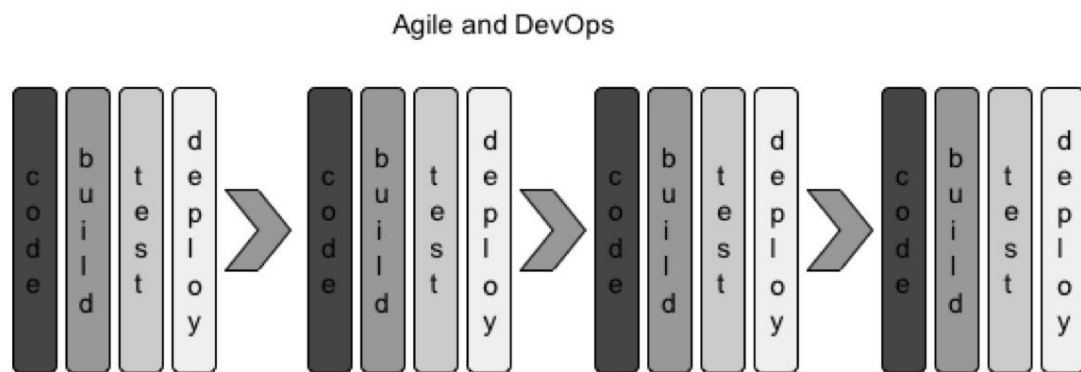
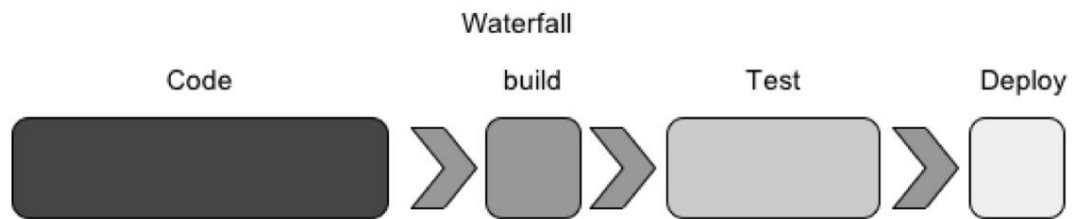
DATA  
STORAGE





## Chapter 11





```
├─ application-dev.properties
├─ application-production.properties
├─ application-test.properties
├─ application.properties
└─ static
    └─ index.html
```

[illegible]

The diagram illustrates three software release models:

- Continuous Integration:** A box containing 'Build' and 'Test' steps, connected by an arrow.
- Continuous Delivery:** A sequence of steps: 'Build' → 'Test' → 'Deploy To staging' → 'Acceptance Test' → 'Deploy To production'. The 'Deploy To production' step is marked with a person icon and the text 'Manual Process'.
- Continuous Deployment:** A sequence of steps: 'Build' → 'Test' → 'Deploy To staging' → 'Acceptance Test' → 'Deploy To production'. The 'Deploy To production' step is marked with a red prohibition sign over a globe icon.

# Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

 lasalazarr ▾

Repository name

banking-app ✓

Great repository names are short and memorable. Need inspiration? How about **fuzzy-palm-tree**.

Description (optional)

Simple spring 5 application to explain Continuous Integration CI / Continuous Delivery CD

☒  **Public**

Anyone can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

lasalazarr / banking-app

Unwatch ▾

1

★ Star

0

🍴 Fork

0

<> Code

🔔 Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

⚙️ Settings

## Quick setup — if you've done this kind of thing before

 Set up in Desktop or **HTTPS** **SSH** `https://github.com/lasalazarr/banking-app.git` 

We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

## ...or create a new repository on the command line

```
echo "# banking-app" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/lasalazarr/banking-app.git
git push -u origin master
```



## ...or push an existing repository from the command line

```
git remote add origin https://github.com/lasalazarr/banking-app.git
git push -u origin master
```



## ...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

Import code

```
*****
*****
*****
Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:
081b79835bbb400a833b7963b31afdf0
This may also be found at: /var/jenkins_home/secrets/initialAdminPassword
*****
*****
```

## Getting Started

# Unlock Jenkins

To ensure Jenkins is securely set up by the administrator, a password has been written to the log ([not sure where to find it?](#)) and this file on the server:

```
/var/jenkins_home/secrets/initialAdminPassword
```

Please copy the password from either location and paste it below.

Administrator password



Continue



## Enter an item name

» Required field



### Freestyle project

This is the central feature of Jenkins. Jenkins will build your project, combining any SCM with any build system, and this can be even used for something other than software build.



### Pipeline

Orchestrates long-running activities that can span multiple build agents. Suitable for building pipelines (formerly known as workflows) and/or organizing complex activities that do not easily fit in free-style job type.



### Multi-configuration project

Suitable for projects that need a large number of different configurations, such as testing on multiple environments, platform-specific builds, etc.



### Folder

Creates a container that stores nested items in it. Useful for grouping things together. Unlike view, which is just a filter, a folder creates a separate namespace, so you can have multiple things of the same name as long as they are in different folders.



### GitHub Organization

Scans a GitHub organization (or user account) for all repositories matching some defined markers.



### Multibranch Pipeline

Creates a set of Pipeline projects according to detected branches in one SCM repository.

OK

## General

Source Code Management

Build Triggers

Build Environment

Build

Post-build Actions

Description

Simple spring 5 application to explain Continuous Integration CI / Continuous Delivery CD

[Plain text] [Preview](#)

☐ Discard old builds

☒ GitHub project

Project url

<https://github.com/lasalazarr/banking-app.git>

Advanced...

☐ This project is parameterized

☐ Throttle builds

☐ Disable this project

☐ Execute concurrent builds if necessary

Advanced...

 **Jenkins Credentials Provider: Jenkins**

 **Add Credentials**

Domain

Global credentials (unrestricted)

Kind

Secret text

Scope

Global (Jenkins, nodes, items, all child items, etc)

Secret

.....

ID

GithubAS

Description

GithubAS

Add

Cancel

**Build**

 **Invoke Gradle script**  

☒ Invoke Gradle

Gradle Version

(Default)

☐ Use Gradle Wrapper

Tasks

▼



Advanced...

Add build step ▼

## Chapter 12

```
{  
  "status": "UP",  
  "diskSpace": {  
    "status": "UP",  
    "total": 499963170816,  
    "free": 118312316928,  
    "threshold": 10485760  
  },  
  "db": {  
    "status": "UP",  
    "database": "MySQL",  
    "hello": 1  
  }  
}
```

```
{  
  "app": {  
    "version": "1.0.0",  
    "description": "Spring boot banking application",  
    "name": "Banking Application Packt"  
  }  
}
```

```
{
```

```
  "mem": 617992,  
  "mem.free": 422793,  
  "processors": 8,  
  "instance.uptime": 80540,  
  "uptime": 89247,  
  "systemload.average": 2.8125,  
  "heap.committed": 537600,  
  "heap.init": 262144,  
  "heap.used": 114806,  
  "heap": 3728384,  
  "nonheap.committed": 82368,  
  "nonheap.init": 2496,  
  "nonheap.used": 80393,  
  "nonheap": 0,  
  "threads.peak": 44,  
  "threads.daemon": 37,  
  "threads.totalStarted": 47,  
  "threads": 40,  
  "classes": 10676,  
  "classes.loaded": 10676,  
  "classes.unloaded": 0,  
  "gc.ps_scavenge.count": 10,  
  "gc.ps_scavenge.time": 122,  
  "gc.ps_marksweep.count": 2,  
  "gc.ps_marksweep.time": 131,  
  "httpsessions.max": -1,  
  "httpsessions.active": 0,  
  "datasource.primary.active": 0,  
  "datasource.primary.usage": 0
```

```
}
```

```
{
  "timestamp": 1534129545525,
  "info": {
    "method": "GET",
    "path": "/notifications",
    "headers": {
      "request": {
        "host": "localhost:8080",
        "connection": "keep-alive",
        "upgrade-insecure-requests": "1",
        "user-agent": "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_13_5) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/66.0.3359.181 Safari/537.36",
        "accept": "text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8",
        "referer": "http://localhost:8080/home",
        "accept-encoding": "gzip, deflate, br",
        "accept-language": "es-US,es-419;q=0.9,es;q=0.8",
        "cookie": "Idea-ad36c147-0f414a92-008d-4e96-b64d-d96429bf4bdb; Idea-ad36c507-28f5587a-daed-4174-a538-fec2b8102dbf; Idea-ad36c508-c40a7ec8-331c-4ba9-8c72-13f26fbc953; LFR_SESSION_STATE_20120=1528146813351; GUEST_LANGUAGE_ID=es_ES; LFR_SESSION_STATE_30742=1528147037724; screenResolution=1680x1050; JSESSIONID.dcb1239b=node0mcuofpehgrxhfhlc0ym37mar22.node0; JSESSIONID.9b15404c=node0z8dj0syta0g23pawjcb58q623.node0; iconSize=32x32; JSESSIONID.38b4114e=node0cmSzokux6euv18shfm4zd2wfp2.node0; JSESSIONID.21fa506c=node0afuzhiig4e4shy4a45xlc1jko5.node0; hudson_auto_refresh=false; JSESSIONID.c8c39d61=node0aj7c35gorejwx14lzhmpq630.node0; JSESSIONID.aaec70b6=node07xeupc4rjk31ayukg4puic8p1.node0; JSESSIONID.16bb3ae9=node01vfct5k885o119dne3gzrhi2a1.node0; JSESSIONID=9353f68e8d88ad8a223c8b7983EA4AA1",
        "x-hola-unblocker-bext": "reqid 6783458: before request, vpn is not allowed, send headers",
        "x-hola-request-id": "6783458"
      },
      "response": {
        "X-Content-Type-Options": "nosniff",
        "X-XSS-Protection": "1; mode=block",
        "Cache-Control": "no-cache, no-store, max-age=0, must-revalidate",
        "Pragma": "no-cache",
        "Expires": "0",
        "X-Frame-Options": "DENY",
        "X-Application-Context": "application",
        "Content-Type": "text/html; charset=UTF-8",
        "Content-Language": "es-US",
        "Transfer-Encoding": "chunked",
        "Date": "Mon, 13 Aug 2018 03:05:45 GMT",

```

 New Relic

APM | BROWSER | SYNTHETICS | MOBILE | PLUGINS | INSIGHTS | INFRASTRUCTURE

Maps | Alerts | Tools



## Welcome to New Relic!

Let's make the most of your trial by instrumenting New Relic. Deploying New Relic is simple. It only takes a few minutes of your time. [Here's the three steps to get your trial started:](#)

### 1

Choose your product



### 2

Deploy an Agent to your app



### 3

Start seeing data



Have someone else who will set up New Relic? [Add them to your account now.](#)

Get Started



### Applications

New Relic  
**APM**

Detailed performance metrics for every app in any environment

Available Agents

# Get started with New Relic

Select a web agent to install.



```
newrelic
├── CHANGELOG
├── LICENSE
├── README.txt
├── extension-example.xml
├── extension.xsd
├── newrelic-api-javadoc.jar
├── newrelic-api-sources.jar
├── newrelic-api.jar
├── newrelic.jar
├── newrelic.yml
└── nrcerts
```

**license\_key:** '835d673f2362c13ff336904c9461c82c5781652d'

# Agent Enabled  
# Use this setting to disable the agent instead of removing it from the startup command.  
# Default is true.

**agent\_enabled:** true



# Set the name of your application as you'd like it show up in New Relic.  
# If enable\_auto\_app\_naming is false, the agent reports all data to this application.  
# Otherwise, the agent reports only background tasks (transactions for non-web applications)  
# to this application. To report data to more than one application  
# (useful for rollup reporting), separate the application names with ";".  
# For example, to report data to "My Application" and "My Application 2" use this:  
# app\_name: My Application;My Application 2  
# This setting is required. Up to 3 different application names can be specified.  
# The first application name must be unique.

**app\_name:** Banking App Monitoring Packt

New Relic

APM BROWSER SYNTHETICS MOBILE PLUGINS INSIGHTS INFRASTRUCTURE

Maps Alerts Tools

Applications Service maps Key transactions

Congratulations on successfully deploying New Relic APM. Now it's time to set-up New Relic Infrastructure and monitor your full stack i.e. health of your applications and services to the un

[Deploy Infrastructure and start your 30 day free trial](#)

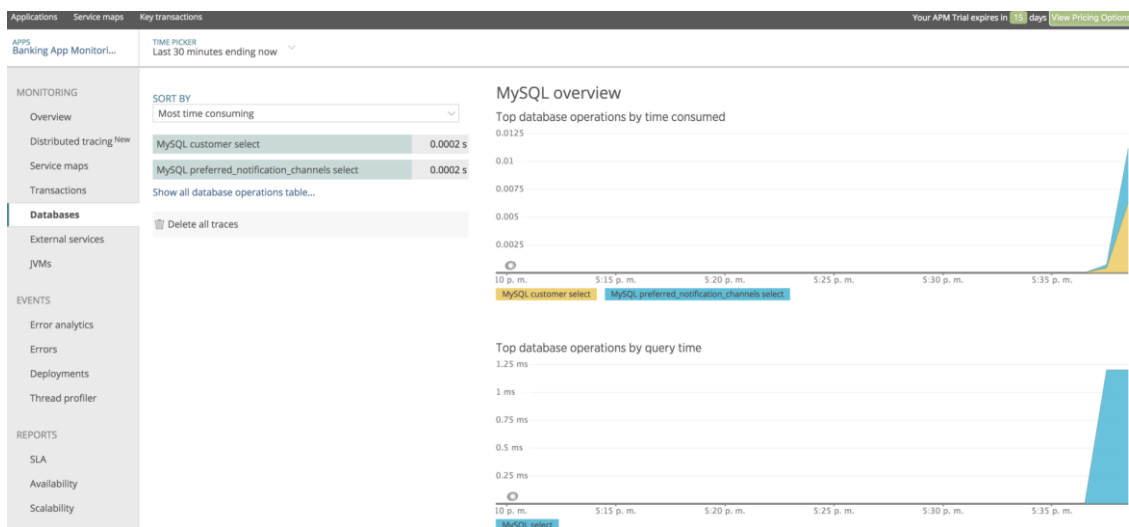
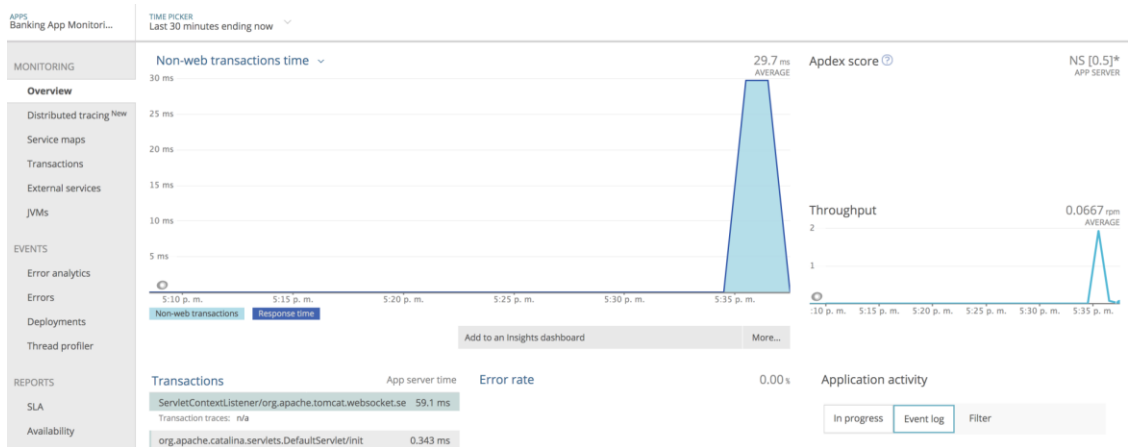
Filter applications

Off Show labels

Add more

| Name                         | End user | Avg. Page Load Time | App server | Throughput | Error % |
|------------------------------|----------|---------------------|------------|------------|---------|
| Banking App Monitoring Packt |          | 0 ms                | 0 rpm      | 0%         |         |

1 - 1 of 1



ALBERTOs-MacBook-Pro.local(java:Banking App Monitoring Packt:8080)



> Profile this JVM

0.97<sub>0.5</sub>\* APDEX 71.7 ms RESP. TIME 1 rpm THROUGHPUT 4.44 % CPU USAGE 1000 MB MEMORY Apache Tomcat APP SERVER

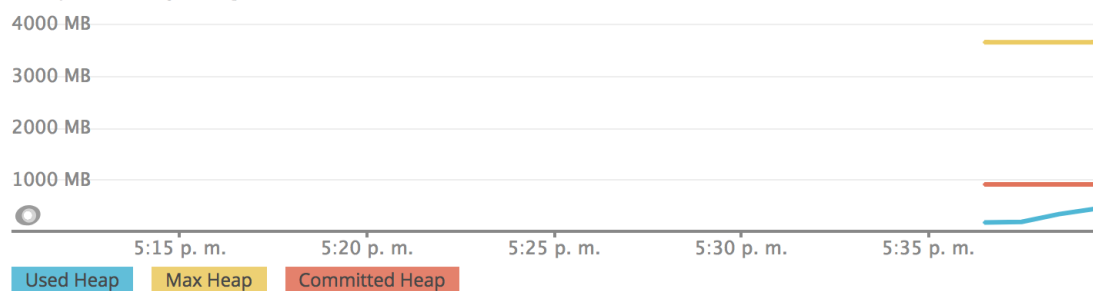
Memory

Threads

Http Sessions

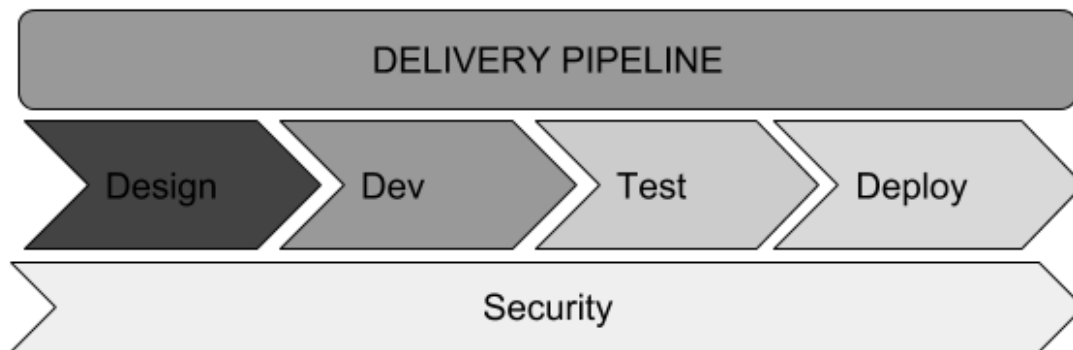
Data Sources

Heap memory usage (MB)

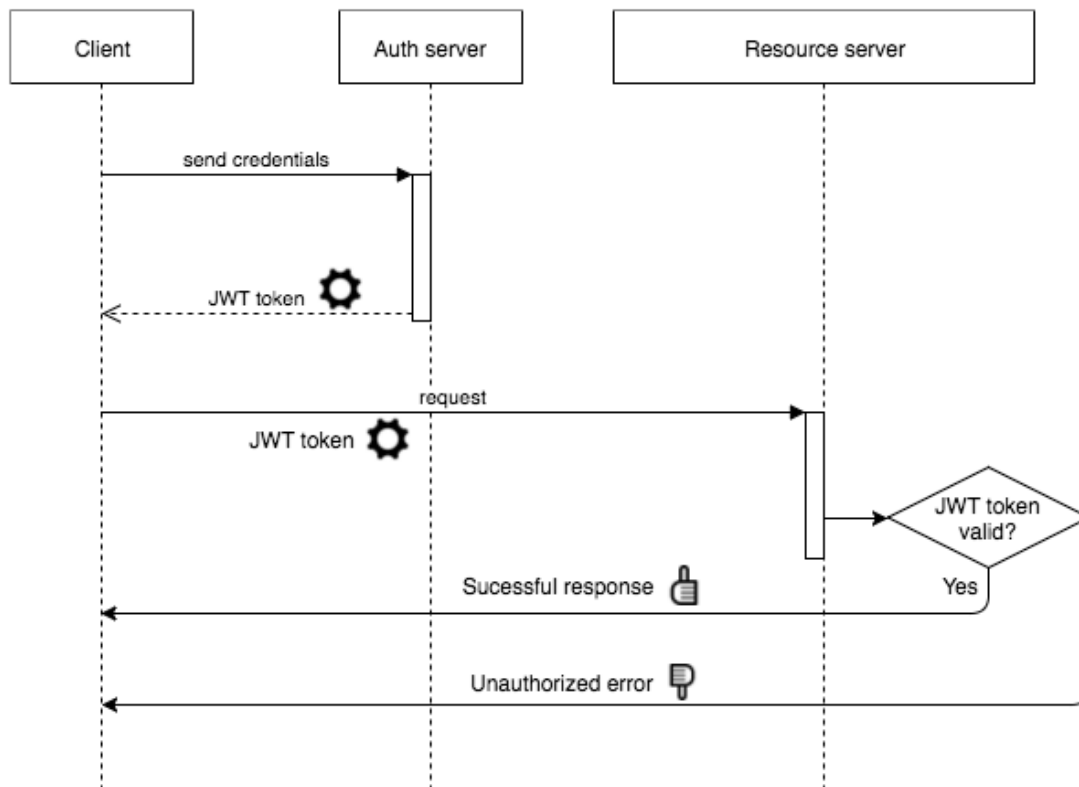


|                   | Throughput              | Total time/min. | Average time | Apdex score | Web transaction          | Plotting: Total time/min. |
|-------------------|-------------------------|-----------------|--------------|-------------|--------------------------|---------------------------|
| Databases         |                         |                 |              |             |                          |                           |
| External services |                         |                 |              |             | /login (GET)             |                           |
| JVMs              | Last 24 hours           | 0.00 rpm        | 0.001 s      | 185 ms      | 0.88 <sub>0.5</sub> *    | 0.001 s                   |
|                   | Previous 24 hour period |                 |              |             |                          |                           |
| EVENTS            |                         |                 |              |             |                          |                           |
| Error analytics   | Last Saturday           |                 |              |             |                          |                           |
| Errors            | 7 day average           | 0.00 rpm        | 0.000 s      | 185 ms      | 0.000 s                  |                           |
| Violations        |                         |                 |              |             | /home (POST)             |                           |
| Deployments       | Last 24 hours           | 0.00 rpm        | 0.000 s      | 136 ms      | 1.00 <sub>0.5</sub> *    | 0.000 s                   |
|                   | Previous 24 hour period |                 |              |             |                          |                           |
| Thread profiler   | Last Saturday           |                 |              |             |                          |                           |
| REPORTS           |                         |                 |              |             |                          |                           |
| SLA               | 7 day average           | 0.00 rpm        | 0.000 s      | 136 ms      | 0.000 s                  |                           |
| Availability      |                         |                 |              |             | /characterEncodingFilter |                           |
| Scalability       | Last 24 hours           | 0.00 rpm        | 0.000 s      | 32.5 ms     | 1.00 <sub>0.5</sub> *    | 0.000 s                   |
|                   | Previous 24 hour period |                 |              |             |                          |                           |
| Web transactions  |                         |                 |              |             |                          |                           |
| Database          | Last Saturday           |                 |              |             |                          |                           |
| Background jobs   | 7 day average           | 0.00 rpm        | 0.000 s      | 32.5 ms     | 0.000 s                  |                           |
| SETTINGS          |                         |                 |              |             | /notifications (GET)     |                           |
|                   | Last 24 hours           | 0.00 rpm        | 0.000 s      | 25.6 ms     | 1.00 <sub>0.5</sub> *    | 0.000 s                   |

## Chapter 13







Auth0

authentication and identity validation process

[Help & Support](#)
[Documentation](#)
[Talk to Sales](#)
[cloudbanco](#)

[Dashboard](#)
[Applications](#)
[APIs](#)

# Applications

TUTORIAL

+ CREATE APPLICATION

Setup a mobile, web or IoT application to use Auth0 for Authentication. [Learn more](#)

## Create Application



### Name

packt-secure-sample

You can change the application name later in the application settings.

### Choose an application type



#### Native

Mobile or Desktop,  
apps that run natively  
in a device.

eg: iOS SDK



#### Single Page Web Applications

A JavaScript front-end  
app that uses an API.

eg: AngularJS +  
NodeJS



#### Regular Web Applications

Traditional web app  
(with refresh).

eg: Java ASP.NET

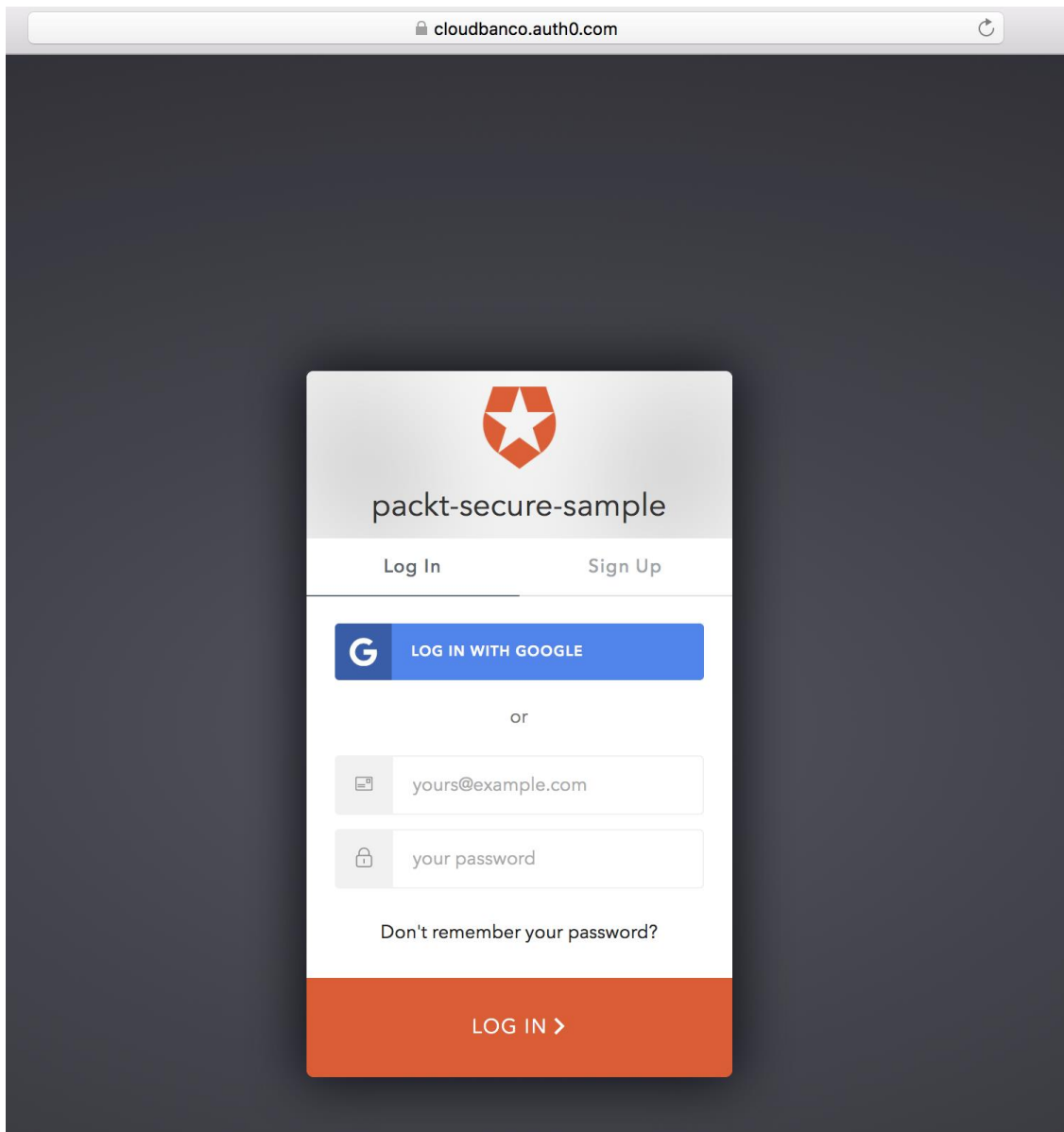


#### Machine to Machine Applications

CLI, Daemons or  
Services running on  
your backend.

eg: Shell Script

CREATE



App.com

Home

Logout

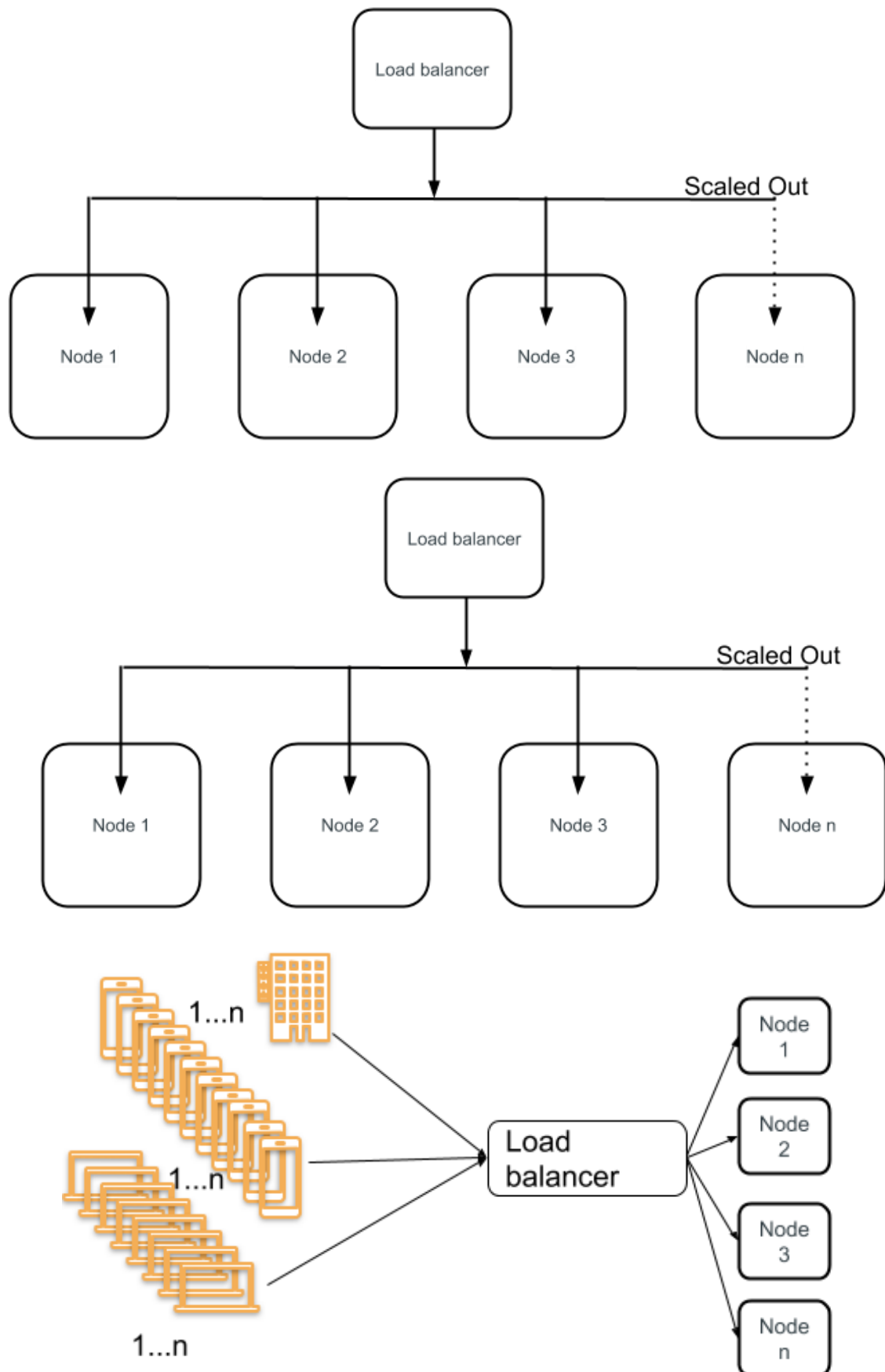
Hello  
com.auth0.example.security.TokenAuthentication@61ca2942:  
Principal: auth0|5b2b045ec4e1ce04c27102e1;  
Credentials: [PROTECTED]; Authenticated: true;  
Details: null; Not granted any authorities!

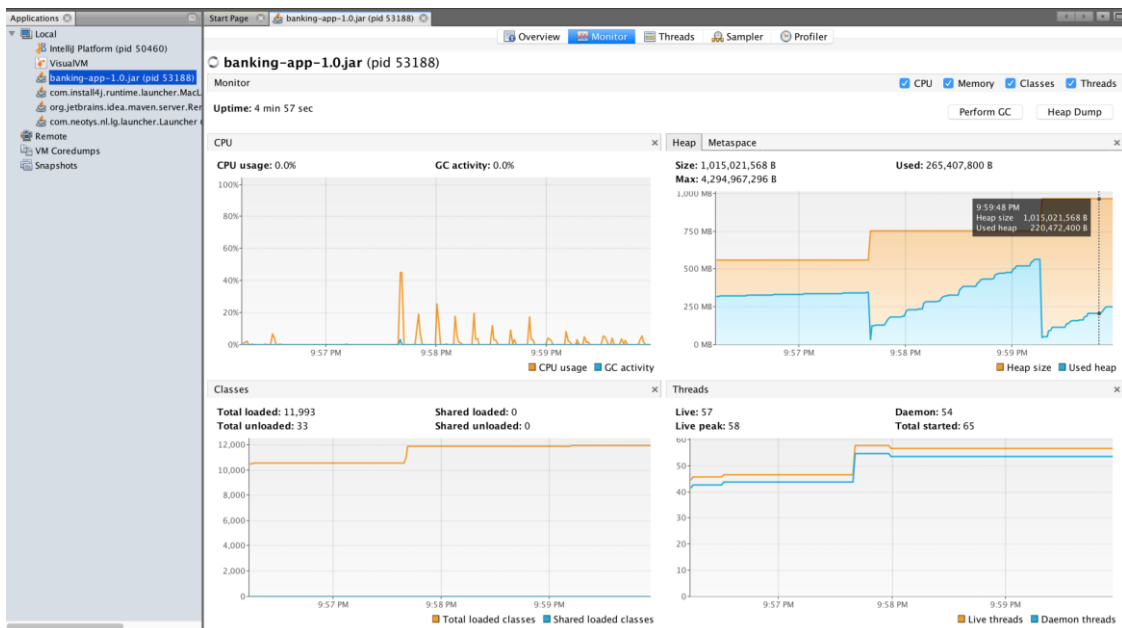
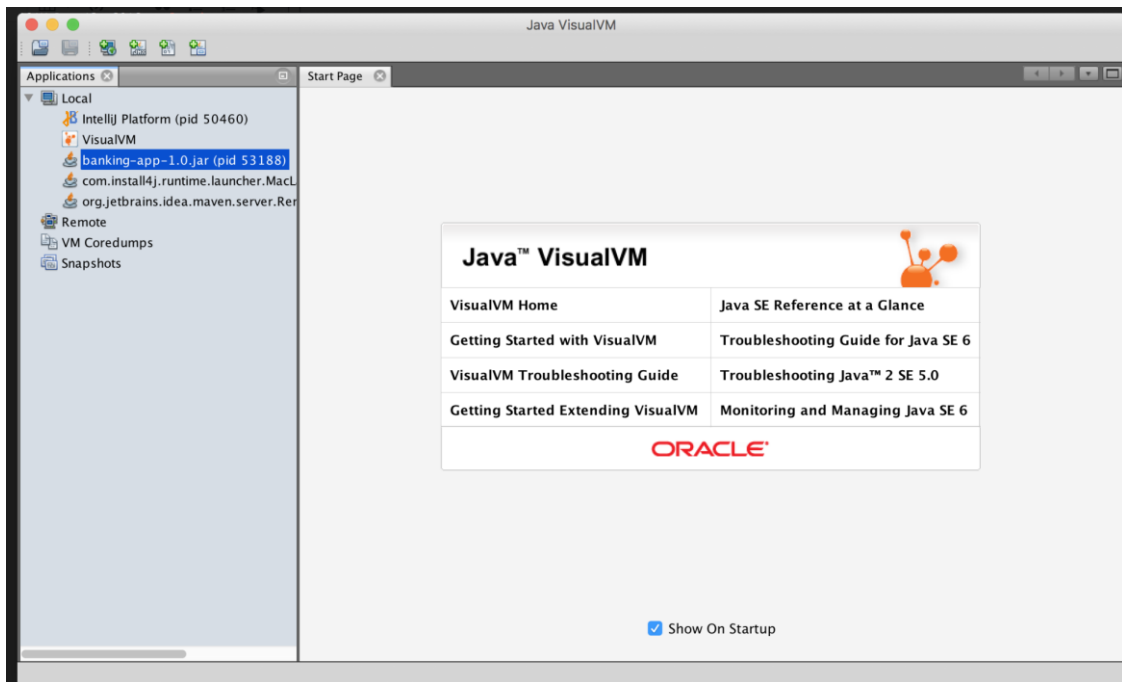
Welcome x  
com.auth0.example.security.T  
Principal:  
auth0|5b2b045ec4e1ce04c27  
Credentials: [PROTECTED];  
Authenticated: true; Details:  
null; Not granted any  
authorities  
We hope you enjoy using this site!

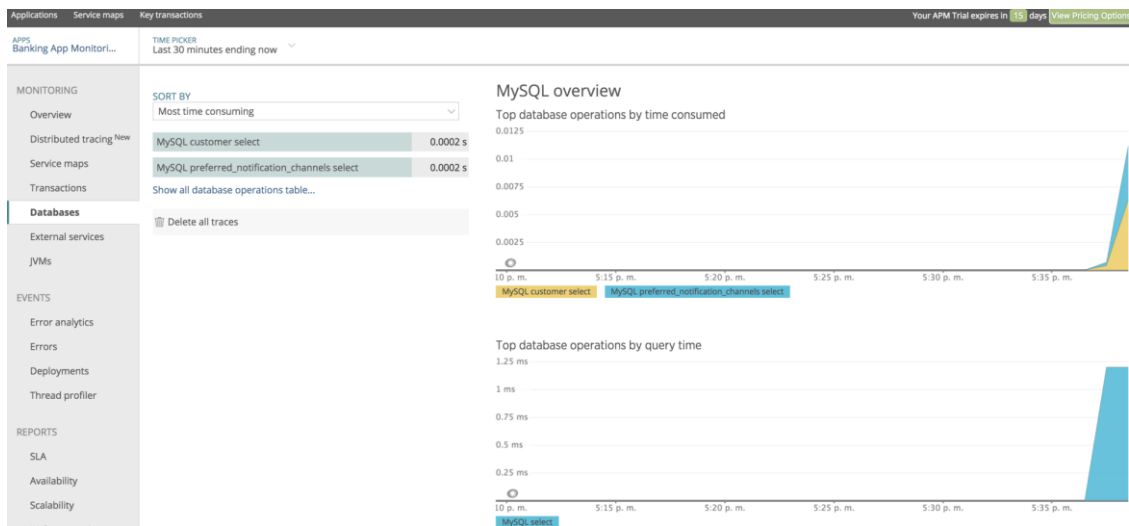
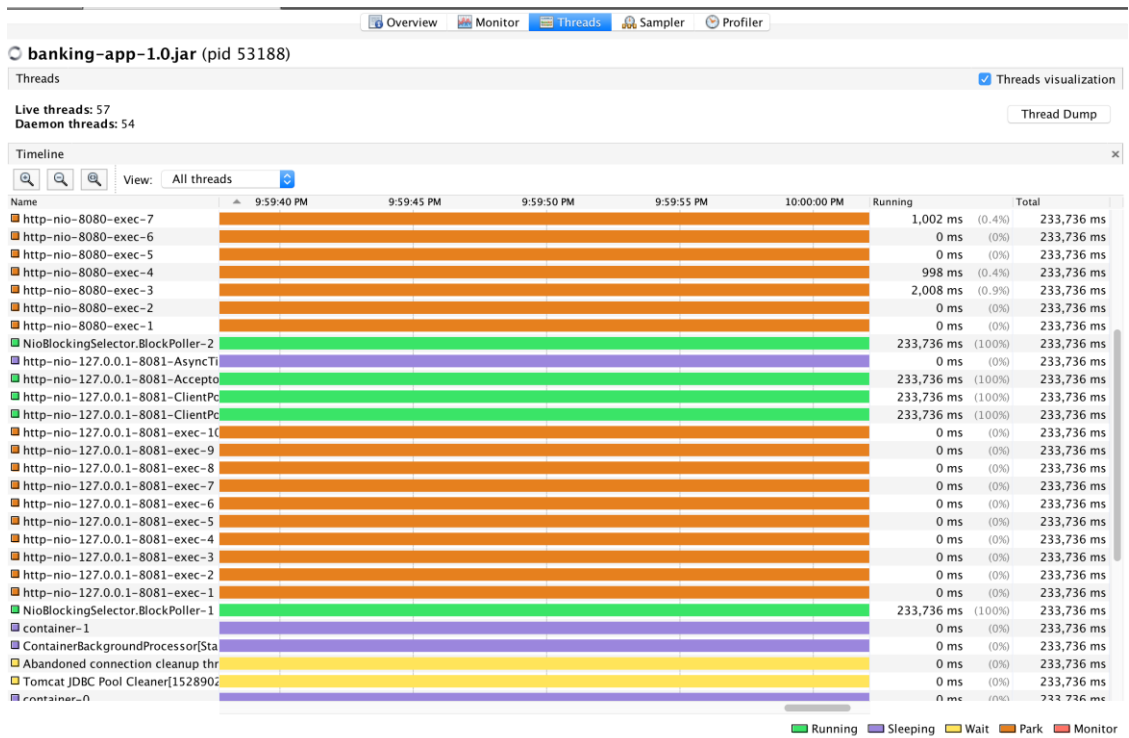
Subheading

Subheading

## Chapter 14







New

**Project**  
Create a new project

Definition

Project name:

Project location

Directory:  [Browse](#)

Collaboration

☐ Share Project [Change server settings...](#)

[Finish](#) [Cancel](#)

Start Recording

**Create a new recording**

Define recording conditions

[General](#) [Advanced](#)

User Path

☐ New recording of:  [\(Help\)](#)

Name:

Record in:

[Web](#) [SAP GUI](#)

☒ Start client

☒ Delete cookies

☒ Clear cache

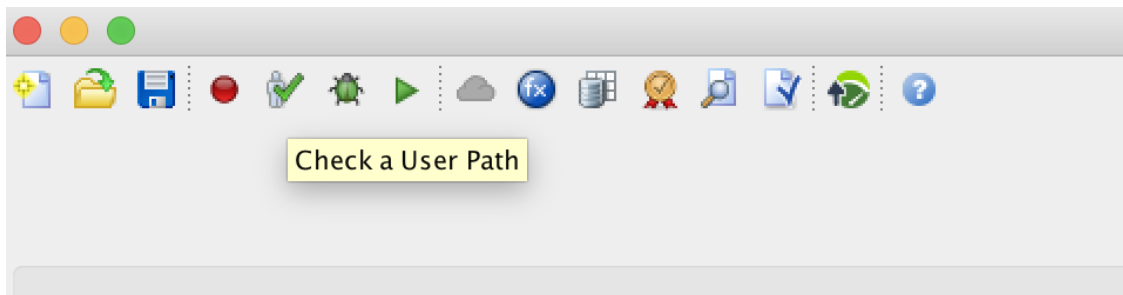
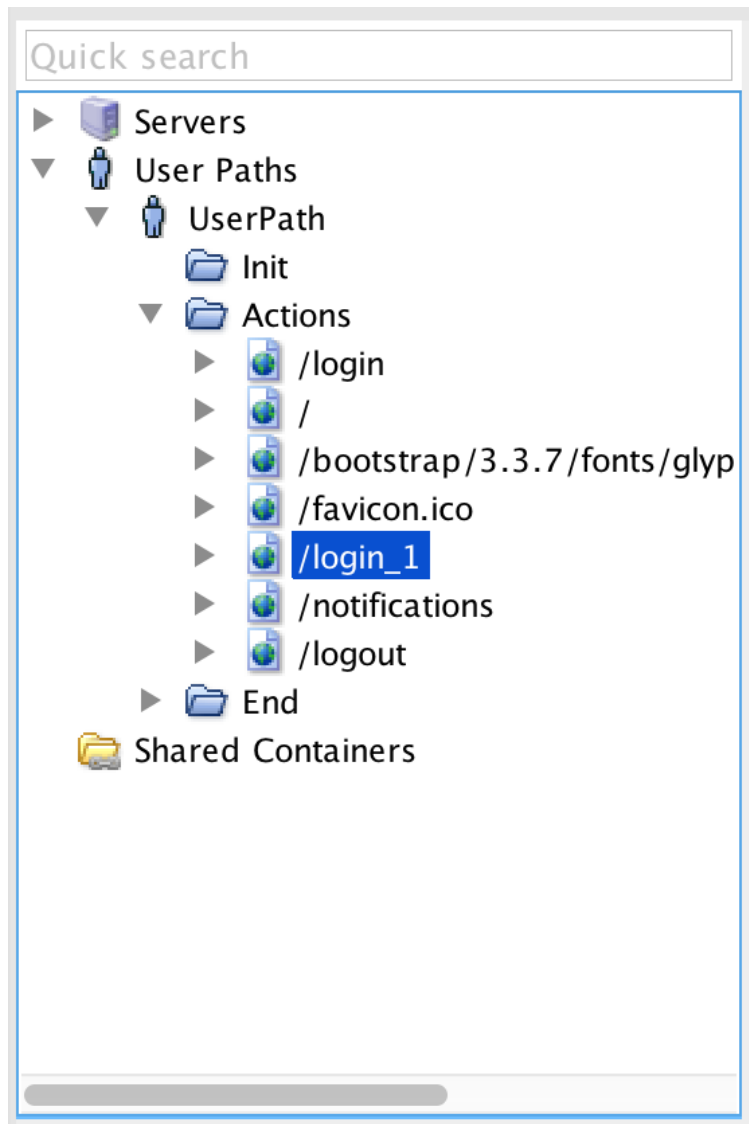
☐ Identify as  [...](#)

Firefox

Google Chrome

Safari

[OK](#) [Cancel](#)





Check User Path

Check the User Path validity

Select the User Path to check

User Path: UserPath

Start checking Flag requests... Advanced...

✓ The User Path **UserPath** is valid.

UserPath

Init

Actions

/login

/

/bootstrap/3.3.7/fonts

/favicon.ico

/notifications

/logout

End

| Time           | Action   | Response code | Assertions | Difference |
|----------------|----------|---------------|------------|------------|
| 00:00:00.182   | UserPath |               |            |            |
| 00:00:00.204   | Init     |               |            |            |
| 00:00:00.209   | Actions  |               |            |            |
| 00:00:00.216   | /login   |               |            |            |
| ✓ 00:00:01.413 | /login   | 200           |            | 2%         |
| 00:00:01.430   | /        |               |            |            |
| ✓ 00:00:01.447 | /        | 302           |            |            |
| ✓ 00:00:01.475 | /        | 302           |            | 2%         |

Details

Variables

Servers

HTML rendering

Recorded HTML rendering

Compared HTML rendering

Logs

User Path: UserPath

Page count: 6

Request count: 8

Push message count: 0

Virtual User size: 8 KB

Virtual User duration: 00:00:01.358 (includes computed thinktimes. The thinktimes are not played during the validation)

Error count: 0

[View used variables during the validation](#)

Close

NeoLoad - [bankappLoadTest]

Design

Runtime

Results

User Paths

Populations

Monitors

Populations

Definition

Name:

Description:

Content

A Population is a collection of User Paths

Total: %

| User Path | Percentage | Browser |
|-----------|------------|---------|
|-----------|------------|---------|

Parameters

User Path:

Browser:

Handle cache:

Population Wizard

Create a Population

A Population is a group of User Paths

The new Population name: 50VUBanksLogin

☒ Create a Population with all defined User Paths

☐ Create a Population with a single User Path UserPath

☐ Do not create any Population

OK

