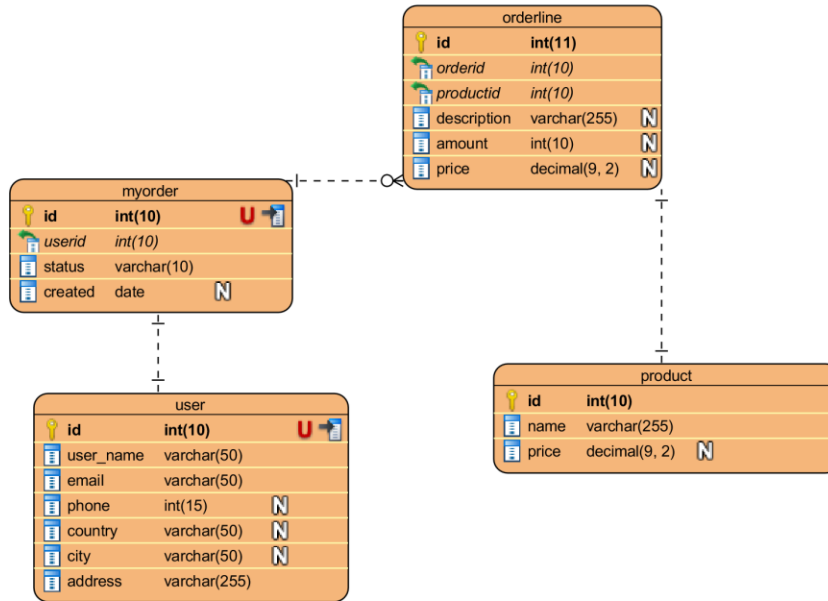


## Java Spring Boot – Open Interfaces – RESTful API

In this report I would use Java Spring boot framework for this project

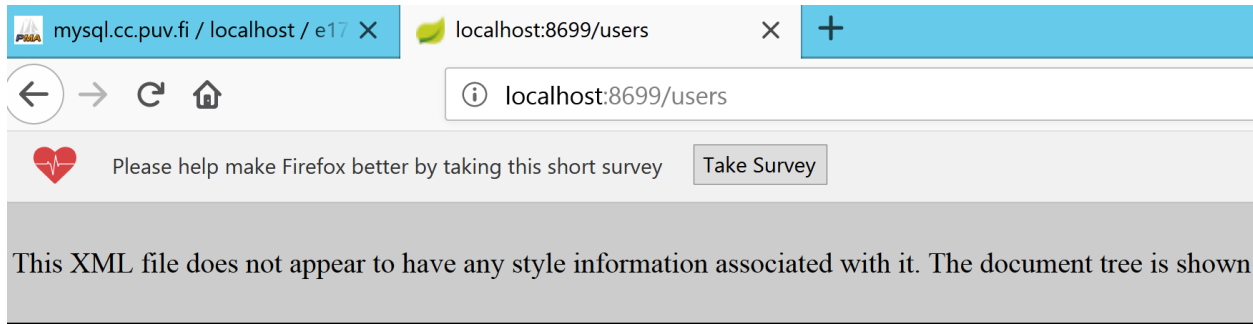
Firstly, I have a schema of database as below:



The Spring boot project need Application class for the project, and three classes: Entity, Repository, and Controller for each table. In this report, I would use these three classes example of **myorder** table

- The Entity class can be created from the database structure by new-JPA Entities from tables after database connection has been defined and the JPA added to project Facets.
- The Repository class communicates with database. It does not need detail implementation, because the base interface JpaRepository already has implemented all CRUD methods.
- The Controller class communicates with client using RESTful.

The Controller classes are modified so that the clients are able to use GET, POST, PUT, and DELETE the data by using REST client, and these classes also return the data in XML.



```
-<ArrayList>
  -<item>
    <id>1</id>
    <address>Ahventie</address>
    <city>Vaasa</city>
    <country>Finland</country>
    <email>chris@gmail.com</email>
    <phone>10101</phone>
    -<myorders>
      -<myorders>
        <id>1</id>
        <created>2004-02-20</created>
        <status>billed</status>
        <orderlines/>
      </myorders>
    </myorders>
    <userName>Chris</userName>
  </item>
  -<item>
    <id>3</id>
    <address>asdasdasdasd</address>
    <city/>
    <country/>
    <email>abcd@gmail.com</email>
    <phone>0</phone>
    <myorders/>
    <userName>abcd</userName>
  </item>
</ArrayList>
```

After running the server, client is able to fetch the data by using REST client, for example the GET method

Method

GET

URL

http://localhost:8699/users

SEND

Body

Request Body

[-] Response

Headers

Response

Preview

1

[{"id":1,"address":"Ahventie","city":"Vaasa","country":"Finland","email":"chris@gmail.com","phone":10101,"myorders":[{"id":1,"created":"2004-02-20","status":"billed","orderlines":[]},"userName":"Chris"}, {"id":3,"address":"asdaasdaasd","city":null,"country":null,"email":"abcd@gmail.com","phone":0,"myorders":[],"userName":"abcd"}]

[-] Curl

Command

curl -X GET -i http://localhost:8699/users