

# TP06

## Spring Data JPA

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### Remark

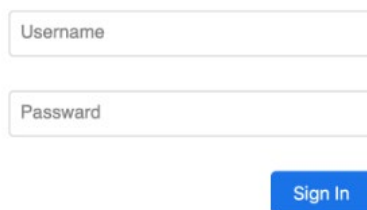
- Spring boot: Spring project generator
- Spring Data JPA: part of the larger Spring Data family, makes it easy to easily implement JPA based repositories.
  - o Sophisticated support to build repositories based on Spring and JPA
  - o Support for Querydsl predicates and thus type-safe JPA queries
  - o Transparent auditing of domain class
  - o Pagination support, dynamic query execution, ability to integrate custom data access code
  - o Validation of @Query annotated queries at bootstrap time
  - o Support for XML based entity mapping
  - o JavaConfig based repository configuration by introducing

### TP06.1. Task 1

Using SpringBoot, generate a web application that includes dependencies such as Spring Web, Spring Data JPA and MySQL connector for Java, Thymeleaf, and Spring Boot Dev Tools. Write an endpoint that will serve path <http://localhost:8080/TP06/task1>

It will display a “Login form”, if user is an admin, after login there will be option to list all users, add new user, update user, and delete user from database. User information includes username, password, role (‘admin’, ‘user’). Admin users are users with role ‘admin’ and they can manage users’ information.

For normal user login, it will display “Welcome <username>!”. And, user can view profile and edit their information.



A login form consisting of two text input fields. The first field is labeled 'Username' and the second field is labeled 'Password'. Below these fields is a blue button with the text 'Sign In'.

### TP06.2. Task 2

Add a link in admin page of previous task. The link will open a web page called Product Management that is used to manipulate products such as:

- List all products.
- Add new products.
- Update products.
- Delete products.
- Search for a product by name or code

A product contains information such as product code, product name, origin country, price, cost, and description.

### TP06.3. Task 3

Add another link in admin page of previous task. The link will open a web page called Order Management that is used to manipulate orders such as:

- List all orders.
- Add new order.
- Update order.
- Delete order.
- Search for an order using an order number.

A order contains information such as order number, order items (each order item contains product, unit price, and quantity), total price, order date, and order special instruction.