Issue Tacker – 01.03.2017

Issue Tracker is a system that reports bugs. Your task is to build one. You have to use **TomEE**, **Hibernate, JSP** and the **custom MVC Framework** for that purpose. Your application needs to have **six** pages.

Views

- **Home**
  - Entry point of the application
- **Issues**
  - All the issues are reported here
  - You can search, add and edit them
- **Log in**
  - Log in with an existing user
- **Create User**
  - Creates a user in the database
- **Add Issue**
  - Add and issue in the database
- **Edit Issue**
  - Edit an existing issue

Data Models

Create the required **entities**. Use the appropriate **data types**.

- **User**
  - Username
  - Full Name
  - Password
  - Role
- **Role**
  - User or Admin
- **Issue**
  - Name
  - Priority
  - Status
  - Creation Date
  - Author – the user that creates the issue
- **Priority**
  - Low, Medium, High
- **Status**
  - New, Solved

Functionality

- **Guests** (anonymous users) can register an account with their own username, email and password.
- **Guests** can login by username and password.
- **Logged-in users** can logout.
- **Guests** can view the home page.
- **Logged-in users** can create new issues.
- **Logged-in users** can edit or delete their own issues.

- **Administrators** can add, edit or delete all issues
- When guest user tries to access a page that is allowed only for logged in user he should be redirected to the login page

1. Design the Database

Design **entity classes** and create a **database** to hold the **users** and the **issues**. Use **Hibernate** implementation of **JPA**.

2. Use DTO

Use appropriate **binding** and **view** models.

3. Use Repositories

Create repositories for your **entities**.

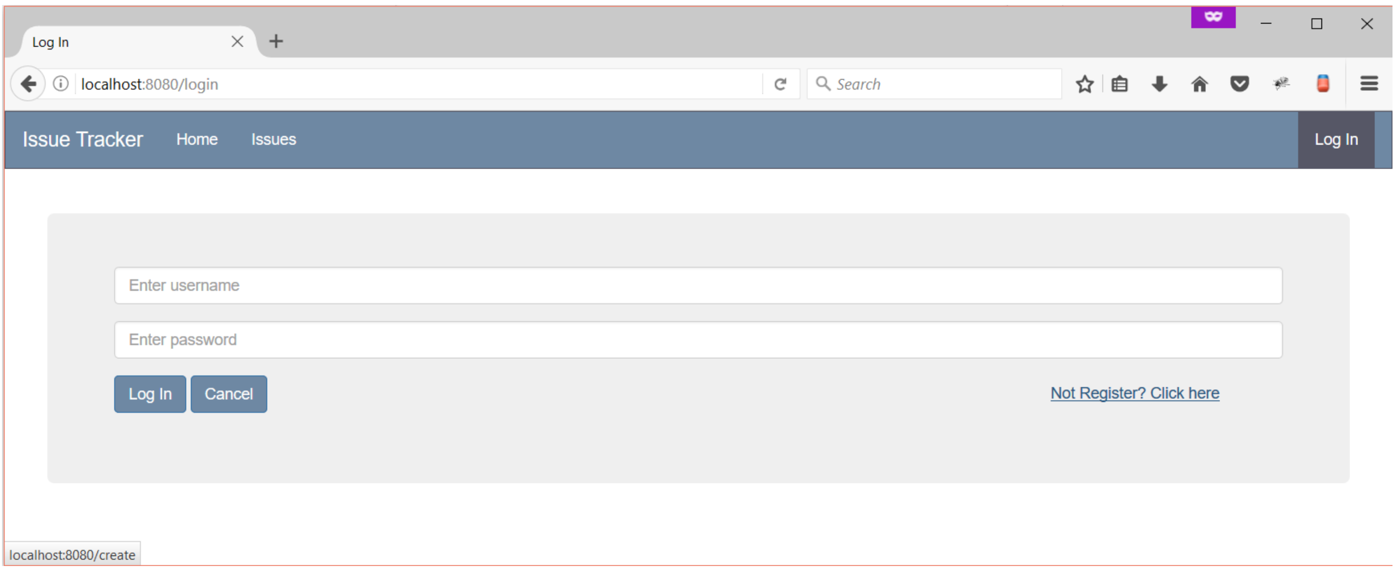
4. Use Services

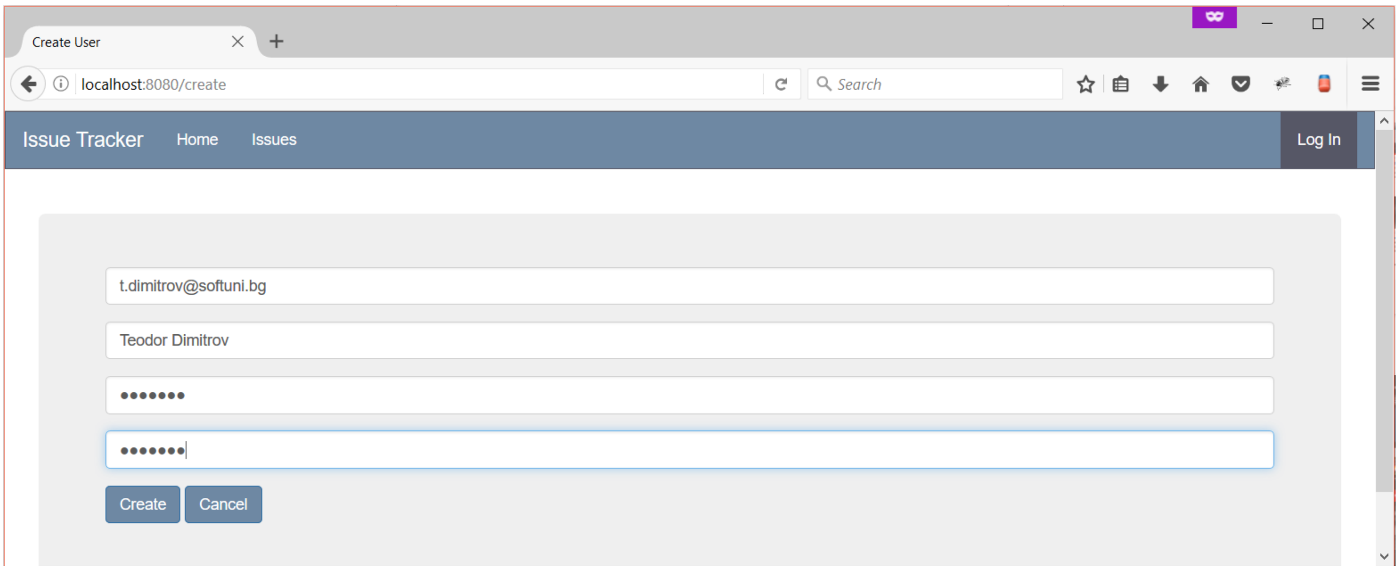
Create services to hold your **business logic**.

5. Implement User Registration, Login and Logout

The guest users can register and log in the forum. He can provide to:

- **Register**
  - o **Username** – must be between **5** and **30** symbols
  - o **Full Name** - must be at least **5** symbols
  - o **Password** – at least **8** symbols. It should contain a **capital letter**, a **number** and one of the following **signs: [!@#$%^&*,.]**
  - o **Confirm Password** – must **match** the provided password
- **Login**
  - o User can log in with **username and password**
- **Logout**
  - o When logged in the user should have option to **log out**





t.dimitrov@softuni.bg

Teodor Dimitrov

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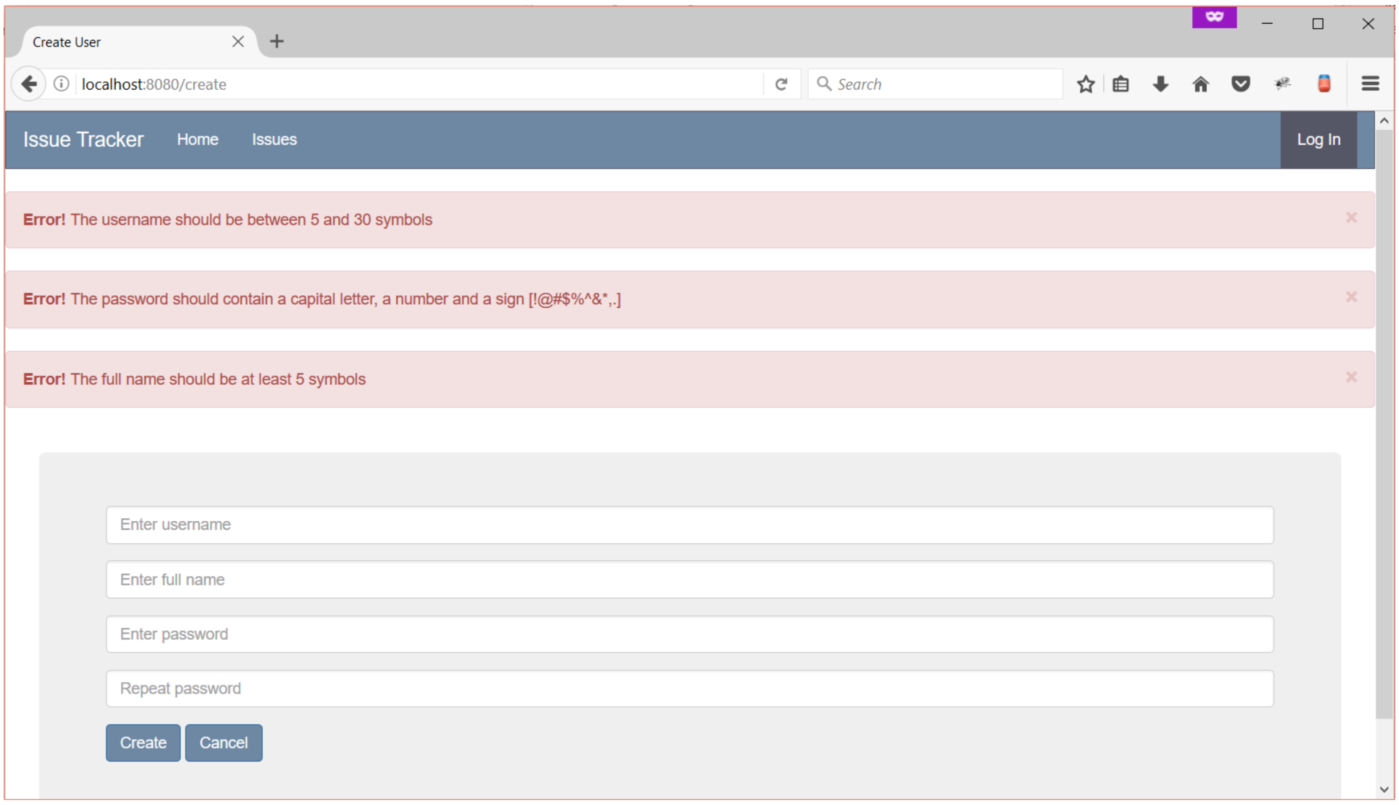
Create Cancel

6. Implement Validations

If any of the constraints fails **alert** a message.



Error! The username should be between 5 and 30 symbols

Error! The password should contain a capital letter, a number and a sign [!@#$%^&*,.]

Error! The full name should be at least 5 symbols

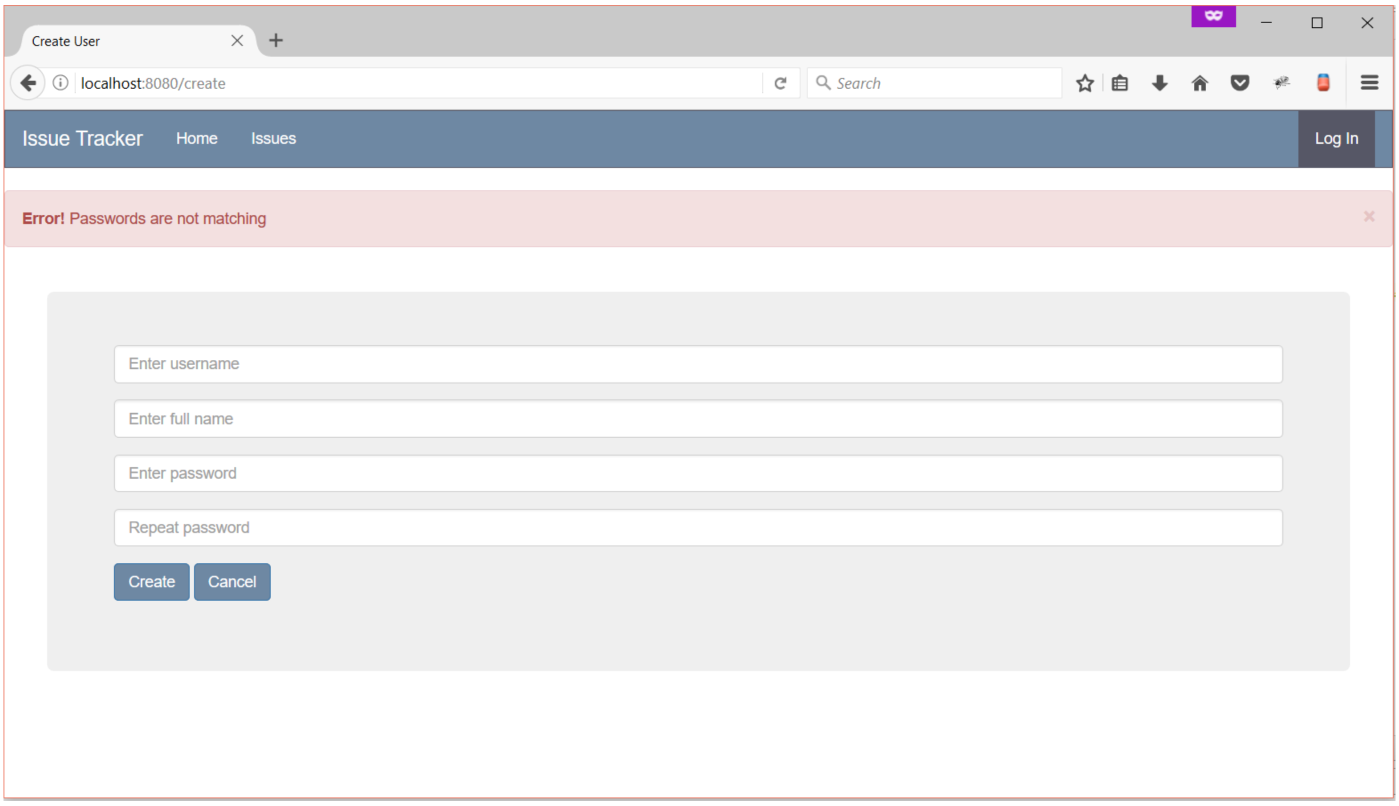
Enter username

Enter full name

Enter password

Repeat password

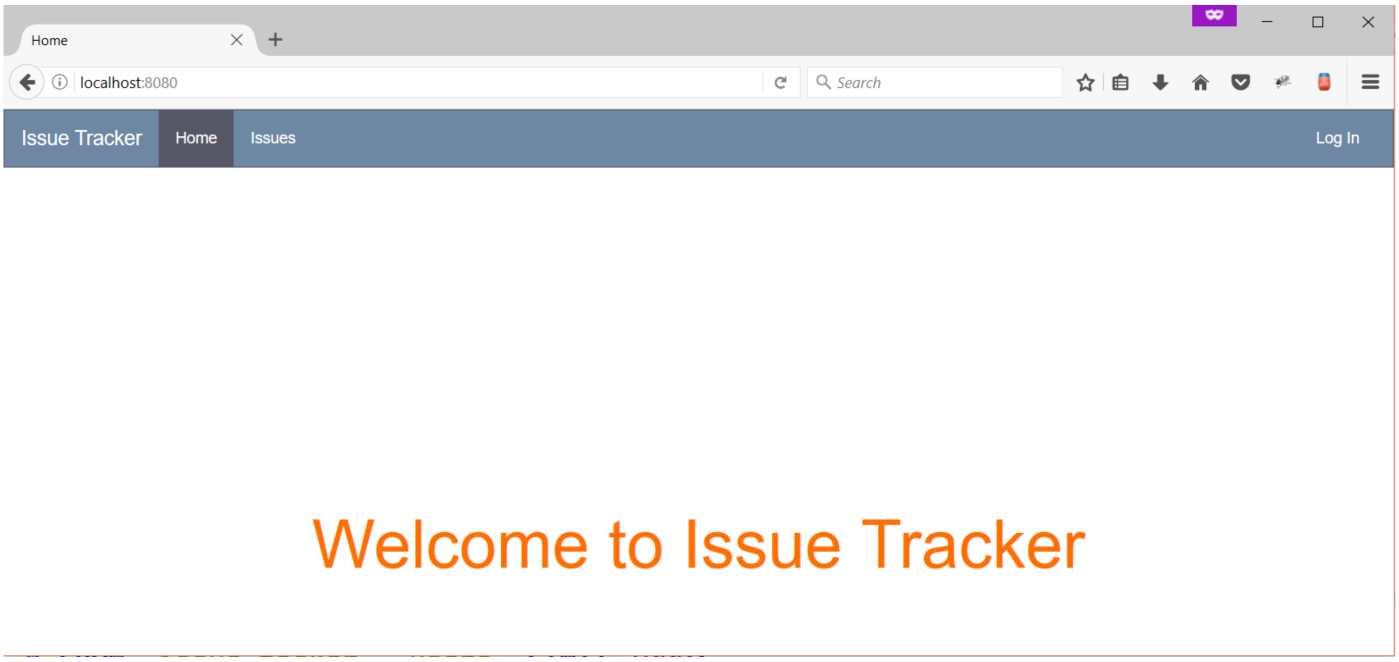
Create Cancel



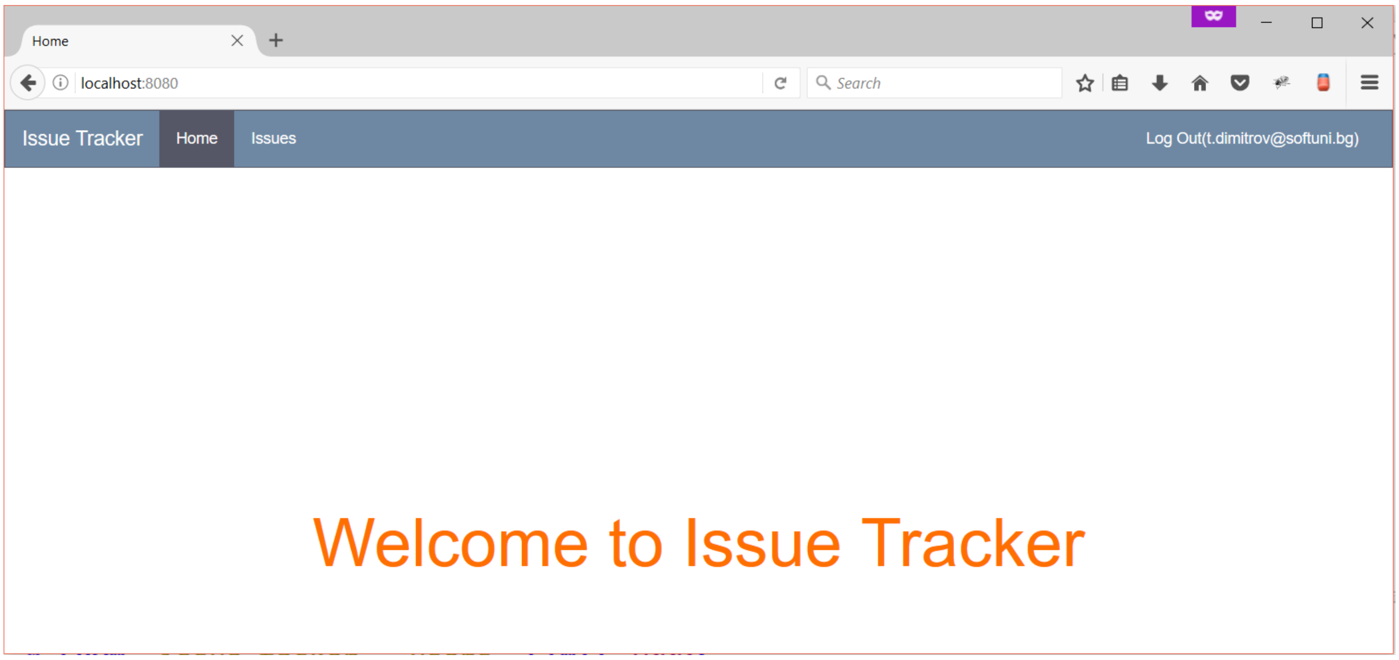
Error! Passwords are not matching

7. Implement Home Page

The home page is available to **guests** and should have a small **menu**. If the user is logged in a **logout** option should appear. **Edit menu.jsp** to achieve this.



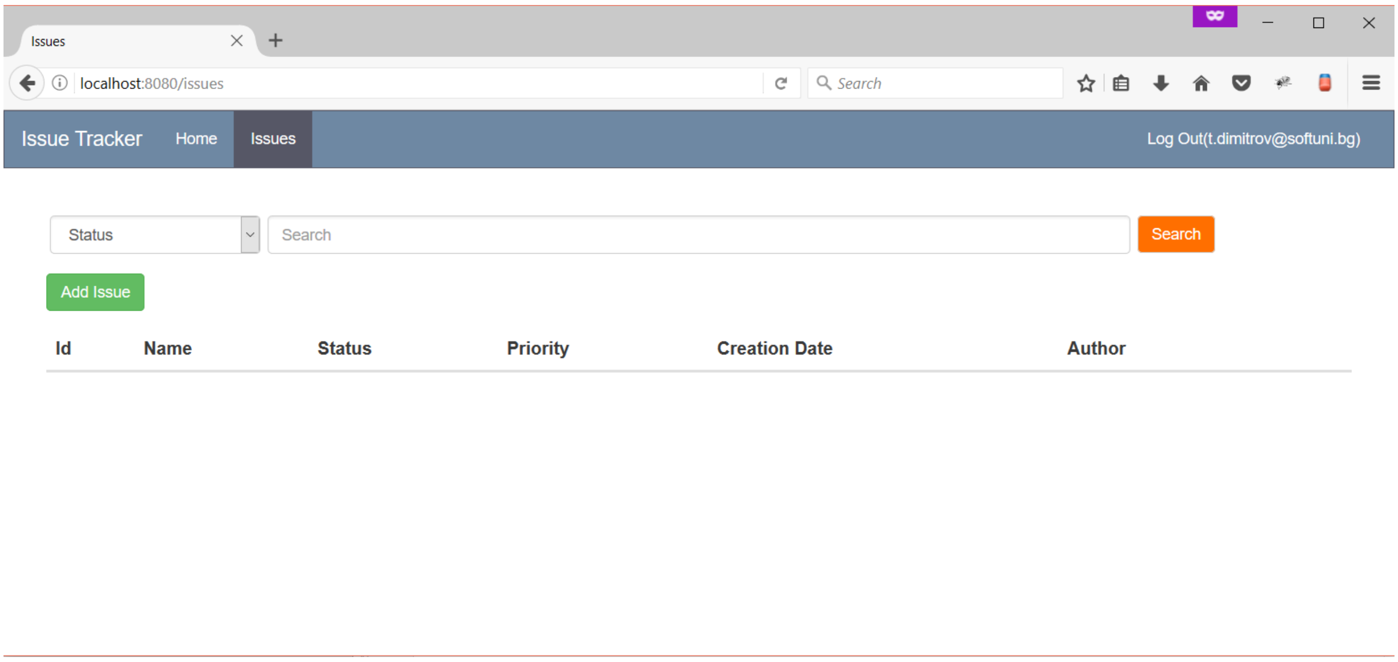
Welcome to Issue Tracker



8. Implement Issues Page

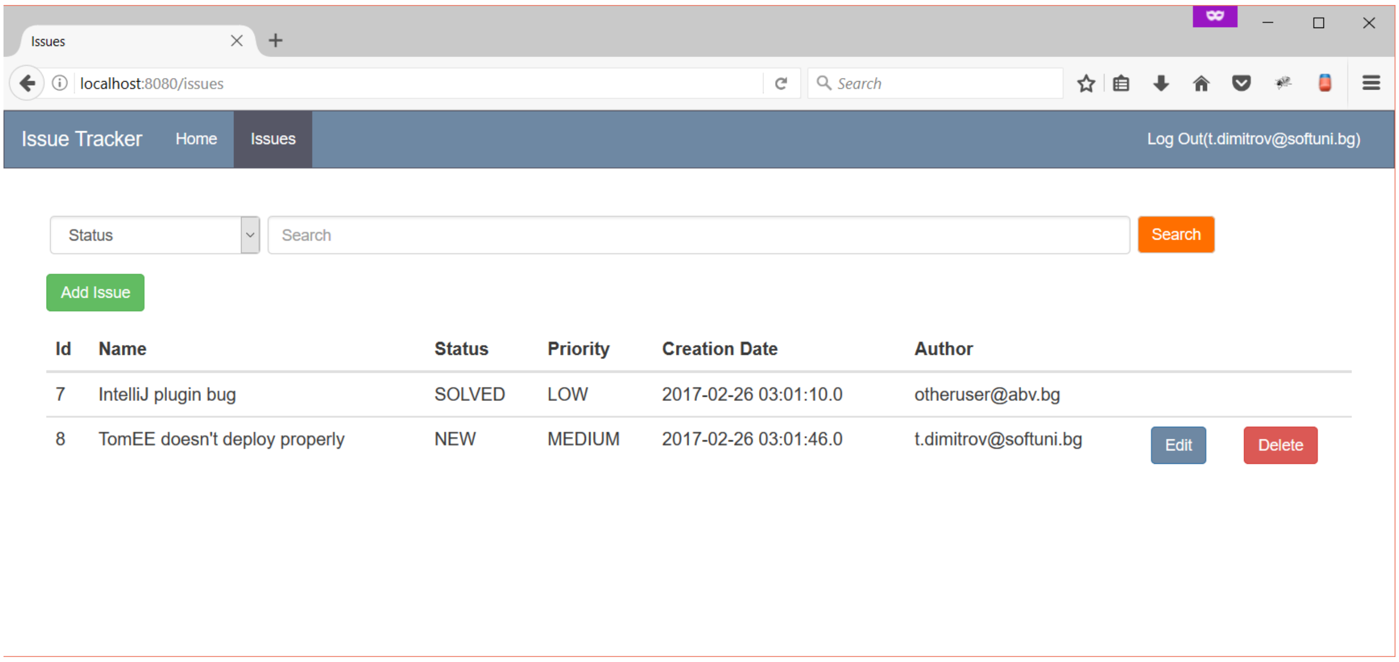
You should access this page **only if you are logged in**. Otherwise, a redirect to **/login** should a happen. Here all **the issues** are listed. If you are the **owner of the issue** you can edit and delete your own issues. If you are **admin** you can edit and delete any issue. Logged in users can create issues. **Edit issues.jsp**. Implement the **search functionality**.

Default view



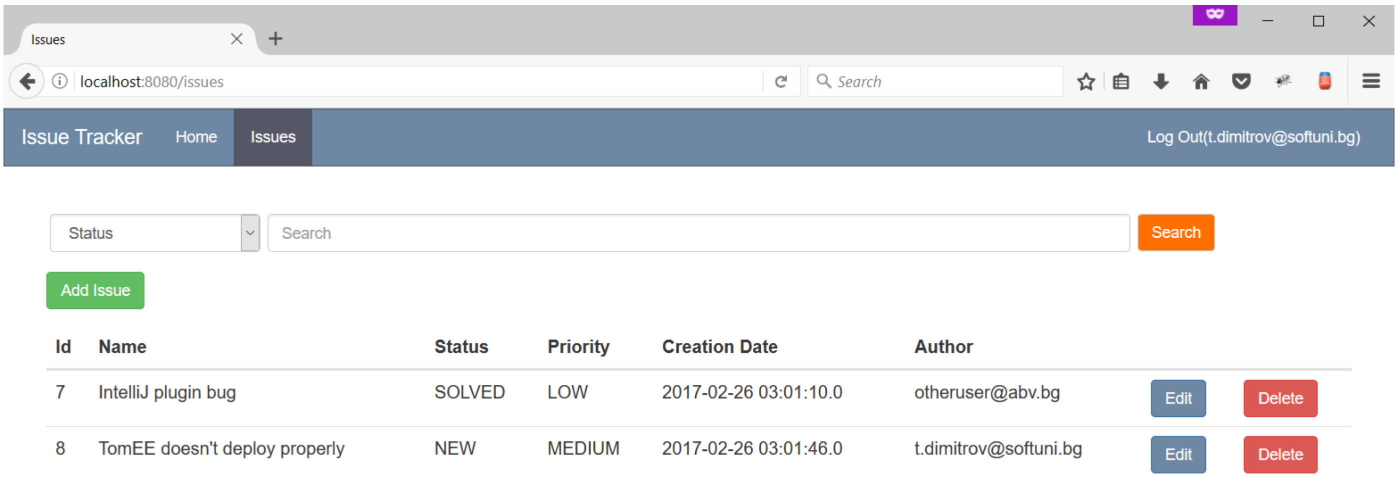
Id	Name	Status	Priority	Creation Date	Author

Logged In View



Id	Name	Status	Priority	Creation Date	Author		
7	IntelliJ plugin bug	SOLVED	LOW	2017-02-26 03:01:10.0	otheruser@abv.bg		
8	TomEE doesn't deploy properly	NEW	MEDIUM	2017-02-26 03:01:46.0	t.dimitrov@softuni.bg	Edit	Delete

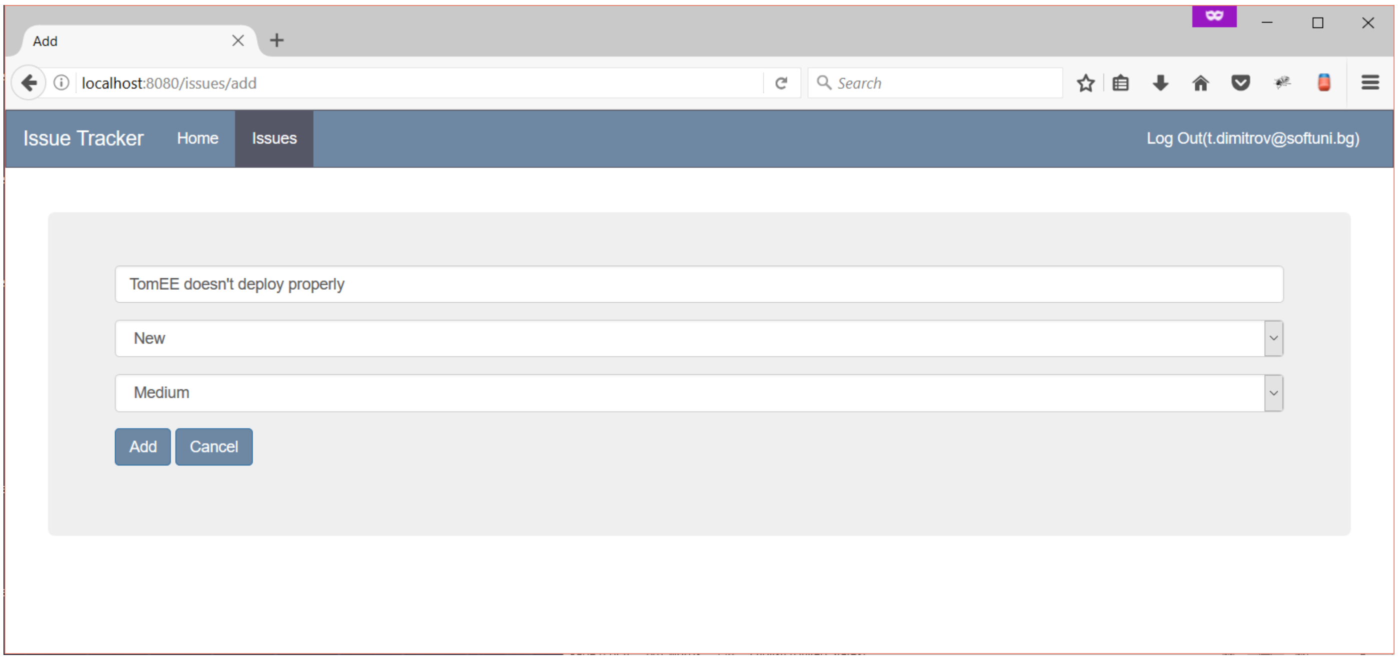
Admin View



Id	Name	Status	Priority	Creation Date	Author		
7	IntelliJ plugin bug	SOLVED	LOW	2017-02-26 03:01:10.0	otheruser@abv.bg	Edit	Delete
8	TomEE doesn't deploy properly	NEW	MEDIUM	2017-02-26 03:01:46.0	t.dimitrov@softuni.bg	Edit	Delete

9. Implement Add Issue Page

On that page **a new issue** should be added. **Edit add-issue.jsp**



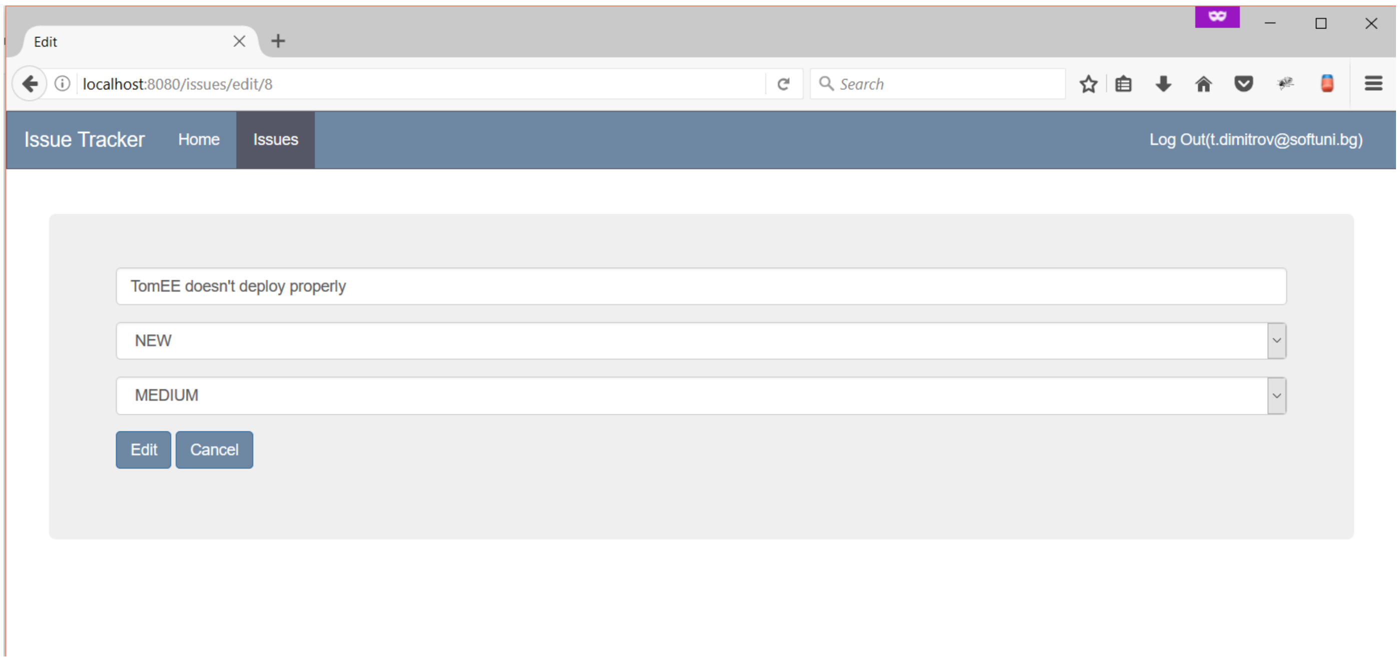
TomEE doesn't deploy properly

New

Medium

10. Implement Edit Issue Page

On that page **any current issue** should be edited. **Edit edit-issue.jsp**



TomEE doesn't deploy properly

NEW

MEDIUM

11. Implement Delete Issue Functionality

You should be able to **delete** an issue if that is **permitted**.

12. Project Infrastructure Bonus

Bonus points code quality / good application structure / additional effort.

- Bonus points for using **Web Filter**.
- Bonus points for using **ModelMapper**.
- Bonus points for **quality cutom extension** of the application.