

# Java Assignment

Please review the information below before proceeding your assignment.

During this assignment you will have to create a small but complete web application using

- Java Spring boot (Java jdk-8, Spring Security, JPA)

You are encouraged to use any good coding techniques, design patterns, or methods that you may know. Please read the entire assignment paper before writing any code. And Good luck!

## User Requirements Mini-Specification

You will be creating a simple Web-based application for project management system

## User Stories

The high level functional requirements are as follows.

- User can register himself by username and password and email address which will be save an user
- No anonymous users are allowed to use the system. They will be redirected to login page for login.
- After login (using username/password), show a list of project generated for a particular date range (by default the current month) in tabular format. This date range can be selected/changed by the user and the result will be shown accordingly
- Allow the authenticated users to create new project which will be saved in DB. You can use in-memory DB or any other DB of your choice. Note that you should show proper error messages on form submission when invalid data is submitted.

The project will contain:

- name: Project name
- intro: Project introduce
- owner: Project owner (own)
- status: Project status can be pre: 0, start: 1, end: 3
- startDateTime: Project start date time, format: yyyy-MM-dd, if project status is pre, it should be null
- endDateTime: Project end date time, format: yyyy-MM-dd
- projectMembers: User can add other users as a member (optional), Any user can be the project member (maximum 5 members will allow)

**Actions:**

- Allow owner to edit a project entry
- Allow the user to delete a project entity.
- Create a jasper report: that will show all the projects information with status in a particular date range
- Create a REST API to get project list (GET /api/v1/projects) which will return all the projects in JSON format
- Consume this REST API, show it in html page:  
<https://reqres.in/api/users/2>

Please consider following:

- Ask for confirmation before deleting any project entry
- Make the UI responsive and beautiful. You can use any UI framework if needed.
- It will be nice if you give form validation in client side too using Javascript

### Java Assignment Mark distribution

No #	Topic	Marks
1	Application design, coding, java convention	10
2	Database design	5
3	Spring security	20
4	Application functionality Add/Edit/Delete	15
5	Application functionality View/Search/Business Logic	15
7	Report	10
8	Expose REST API end point	10
9	Consume REST API end point	5
10	Validation	5
11	UI design	5
<b>Total</b>		<b>100</b>