

Software Technologies Required

- Java 8
- Spring MVC 4.2.xx
- Spring Security 4.xx.xx
- Hibernate 4.xx.xx
- Eclipse Mars
- Apache Tomcat 8
- Apache Maven 3.3.xx
- Oracle XE 11g

Architecture

The project should use the following architecture:

- MVC (Spring implementation)
- Services (Spring implementation)
- DAO (JPA / Hibernate)
- Relational Database (Oracle)

Basic Business Requirements

Mandatory business requirements (up to 50 points):

- Home page (simple page with header, footer, etc) with Menu
- 3 Register pages (page containing table with existing records - see sample below) with option to:
 - Create new records
 - Modify existing records
 - Remove records
 - Search records
- 3 Edit pages (page containing input fields to create/edit record – see sample below – 1 for each register page) that can:
 - Cancel the change/addition
 - Save the change/addition (creates new record or modifies the existing one)
- Buttons to navigate between screens
- Pages must depend on each other – ex. client-purchase – you need client to register purchase

Advanced Business Requirements

Not mandatory business requirements (up to 50 points):

- System configuration – loaded at server startup
- User management – register with users with option to create, edit, deactivate, search for users
- Authentication – when not logged to redirect to the login page
 - Login form – on submit if correct to redirect to the home page
 - Authentication implementation – loading user/password from the DB
 - Logout – on logout to redirect to the login page
- Authorization – to block content if the user is not authorized to see it (only admin users can access the user management)

- Front-end authorization
- Back-end authorization

“Nice to have” Business Requirements

Not mandatory business requirements – bonus points (up to 10 points) to the total points in the project.

- Logging
 - Log4j catching and logging exceptions
 - AOP intercepting and logging
 - Common exception handling page
- Styling
 - Using CSS to style the pages

Deliverables

The project should include the following components:

- **Archived Eclipse-based Spring Web MVC Maven project**
- Database DDL
- Project Intro – short description (max 1 page) of the business area of the project
- Presentation – includes the following mandatory elements:
 - E/R diagram of the database
 - Architectural diagram of the application (All layers and classes forming them)

Presentations

The presentation process includes the following steps:

- Presenting the project – up to 5 minutes
- Demonstration – up to 5 minutes
 - Building
 - Deploying
 - Runtime
- Questions – up to 5 minutes

Sample Register Page

A Web Page

http://mycoursework.com

Books Register

[Add New Book](#) [Search](#)

ID	Name	Author	Published	Pages	
1	Gardens of the Moon	Steven Erikson	1 April 1999	666	edit delete
2	Deadhouse Gates	Steven Erikson	1 September 2000	604	edit delete
3	Memories of Ice	Steven Erikson	6 December 2001	920	edit delete
4	House of Chains	Steven Erikson	2 December 2002	1 021	edit delete
5	Midnight Tides	Steven Erikson	1 March 2004	950	edit delete
6	The Bonehunters	Steven Erikson	1 March 2006	1231	edit delete
7	Reaper's Gale	Steven Erikson	7 May 2007	928	edit delete
8	Toll the Hounds	Steven Erikson	30 June 2008	832	edit delete
9	Dust of Dreams	Steven Erikson	18 August 2009	816	edit delete

Sample Edit Page

A Web Page

http://mycoursework.com

Books Edit Page

Name:

Author:

Published:

Author:

[Cancel](#) [Submit](#)

The form will be used for create book and for edit book (in the update case it will be filled with the book data)