# HWA Project Documentation

## Project Outline

I am required to create an OOP based, full-stack web application using the Enterprise Architecture Model. I need to create the front-end website using HTML, JS and CSS, as well as use java to write a SpringBoot application that will handle the back-end of my API. A database is required to be persistent, for this I will be using MySQL Workbench.

## Project Requirements

* Code fully integrated into a Version Control System using the feature-branch model: **main/dev/multiple features.**
* A project management board with full expansion on user stories, acceptance criteria and tasks needed to complete the project.
* A risk assessment which outlines the issues and risks faced during the project timeframe.
* A relational database, hosted locally, which is used to persist data for the project. This database must contain at least **one entity**, with their structure and relationships modelled using an ERD.
* A functional applicated created in Java (SpringBoot), following best practices and design principles, that you have covered during training that meets the requirements set on your Kanban Board with a functioning front-end website and integrated API.
* A build of your application, including any dependencies it might need, produced using an integrated build tool.
* A functional front-end website which connects to your back-end API.
* Fully designed test suites for the application you are creating. You should aim to reach the industry-standard of **80%** test coverage through **unit** and **integration** testing.

## Diagrams

### ERD: UML:

Diagram

Description automatically generatedText, table

Description automatically generated

## Risk Assessment

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Risk Assessment** | **Risk** | **Evaluation** | **Likelihood** | **Impact** | **Response** | **Control Measure** |
|  | My PC crashes | Would lose all unsaved worked | Low | High | Turning PC back on | Save work regularly, don't use up all the computer's resources at once |
|  | Broken version deployed onto dev branch | This version may have missing or broken features that don't pass MVP | High | High | Reverting commits to recent build - fixing the code before re-merging | Test all code before merging branches, double check I am merging correctly |
|  | Not meeting project deadline | Will lead to less marks, and a product that doesn't meet MVP | Low | High | Explaining thoroughly why the deadline wasn't met | Plan all work ahead of time including time restraints and priorities |
|  | Accidentally deleting some code or chunk of the project | Would lose this code / work | Low | Medium | Re-writing code | Save my work regularly and save a back-up every 6 hours |
|  | Losing connection to Wi-Fi for a short period of time or indefinitely | Will lose any unsaved work if working on the cloud, will not be able to use online resources such as Jira, GitHub etc. | Low | Medium | Restarting router or relocating my computer. Could also complete work on mobile device if applicable | Keep offline copy of Kanban board, and keep all data as well as backups saved locally |

## Risk Assessment Analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Risk Assessment** | **Risk** | **Did this risk occur** | **If yes, what was the outcome, if no, did I follow control measures** | **What could I have done better** |
|  | My PC crashes | Yes | As I followed control measures, no work was lost, and I could quickly pick up where I left off after 5 minutes of down-time | Had software such as eclipse and MySQL Workbench installed on secondary device |
|  | Broken version deployed onto dev branch | No | Code was tested before being merged with main |  |
|  | Not meeting project deadline | No | Have spread work out evenly, while prioritising important jobs. | Included story points on Jira board so I could more accurately prioritise tasks |
|  | Accidentally deleting some code or chunk of the project | No | Work was saved regularly, however backups were not made. | Backed up my code in a backup folder every day for example |
|  | Losing connection to Wi-Fi for a short period of time or indefinitely | No | Saved offline version of Kanban board, data was all saved to my local machine as well as the cloud in case I lost connection |  |

## Swagger API

Text

Description automatically generated

Text

Description automatically generated