Hobby Web Application

By Jonathan Owolabi

Introduction

Concept

My approach

Task chosen was House portfolio management application

Sprint plan

Have full CRUD functionality in the backend

Have limited CRUD functionality in the front end

Have an app that can communicate with back end and store data

Be able to call the data stored in the web application

Consultant Journey

- Background is in mechanical design and manufacture. During that degree used different technologies such as matlab, solidworks and other to complete the degree
- Approach to the project was to be logical and to fully understand what was presented before starting to code.
- This is the introduction to coding and will spend a lot of time to increase the knowledge from the technologies presented and more.

Content

- What web application was created?
- What technologies was used to achieve?
- Approach to version control
- Testing - what was tested and the coverage of src/main/java
- Demonstration
- Sprint review
- Sprint retrospective
- Conclusion

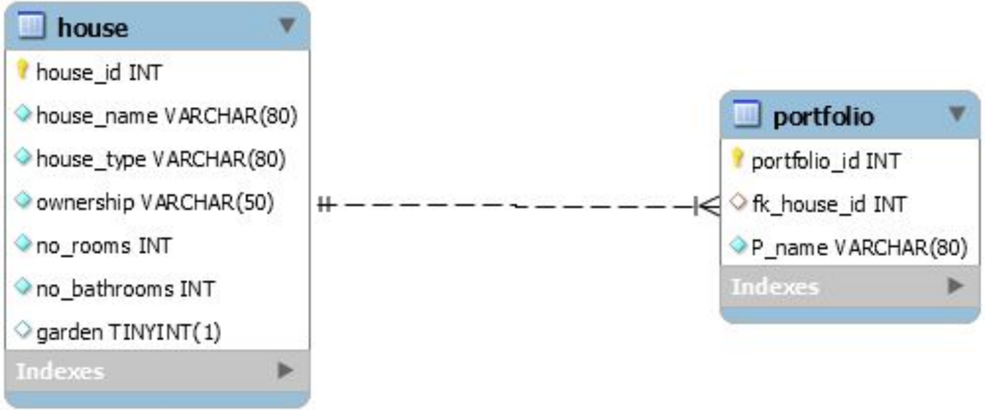
Property management application

- The aim for this website application is to be able to store information of properties in one location to manage a portfolio.

Aspects of the system:

- Managing property details
- Managing property status
- Managing the occupancy

  of the property



house
- house_id INT
- house_name VARCHAR(80)
- house_type VARCHAR(80)
- ownership VARCHAR(50)
- no_rooms INT
- no_bathrooms INT
- garden TINYINT(1)

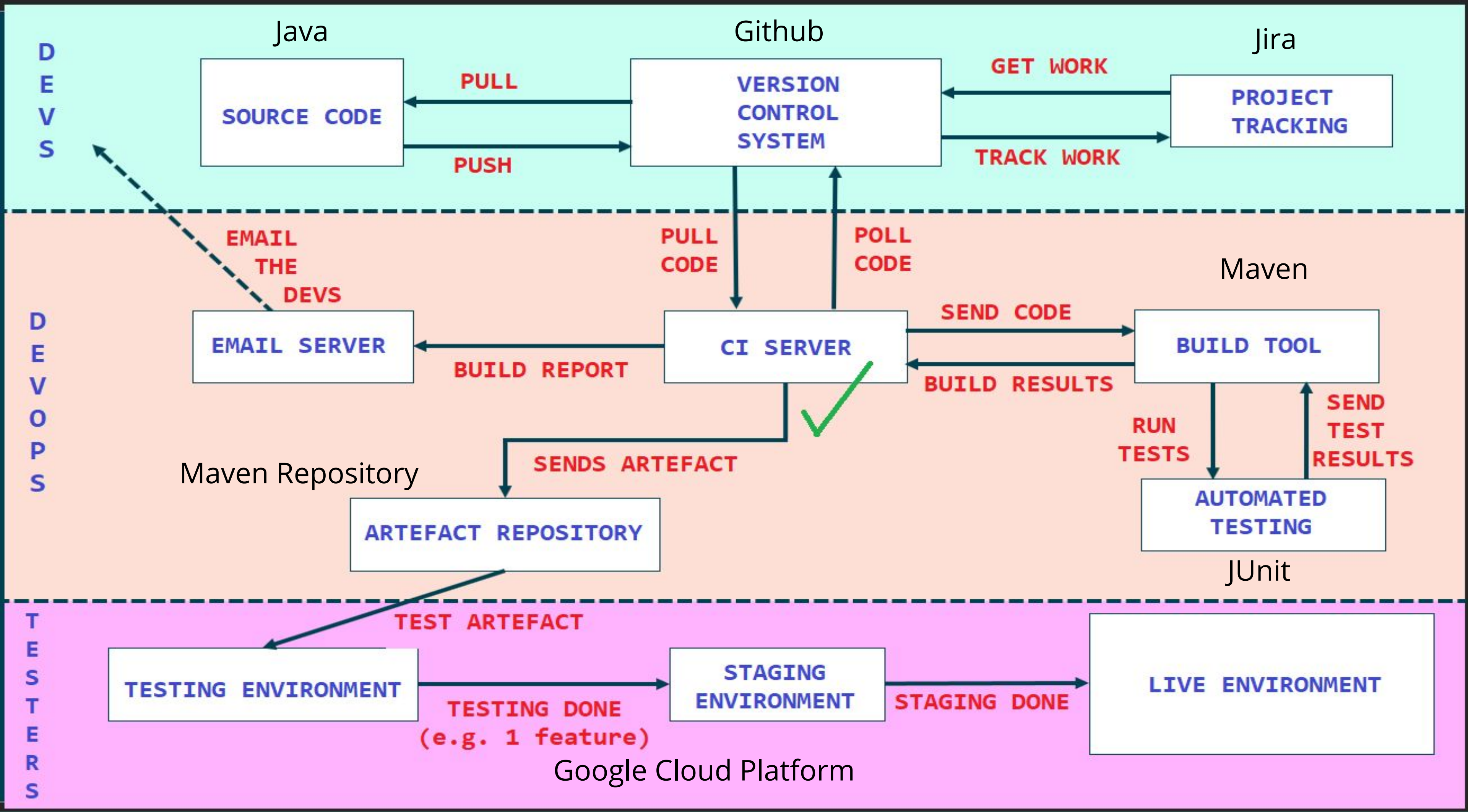
Indexes

portfolio
- portfolio_id INT
- fk_house_id INT
- P_name VARCHAR(80)

Indexes

Technologies learnt so far

- The use of agile system - to better manage time
- SQL - to manage and store data in one location
- Java - the coding language used for the application
- Maven - used to assist in coding by having
- Springboot - java framework
- Jira - used for project management tool
- Git - for version control
- HTML, CSS & javascript - used to format, style and get the functionality of the webpage
- Google cloud platform - for hosting the database



DEVS

Java

SOURCE CODE

PULL

PUSH

Github

VERSION CONTROL SYSTEM

GET WORK

TRACK WORK

Jira

PROJECT TRACKING

DEVOPS

EMAIL THE DEVS

PULL CODE

POLL CODE

EMAIL SERVER

BUILD REPORT

CI SERVER

✓

SEND CODE

BUILD RESULTS

Maven

BUILD TOOL

RUN TESTS

SEND TEST RESULTS

AUTOMATED TESTING

JUnit

SENDS ARTEFACT

Maven Repository

ARTEFACT REPOSITORY

TESTERS

TEST ARTEFACT

TESTING ENVIRONMENT

TESTING DONE (e.g. 1 feature)

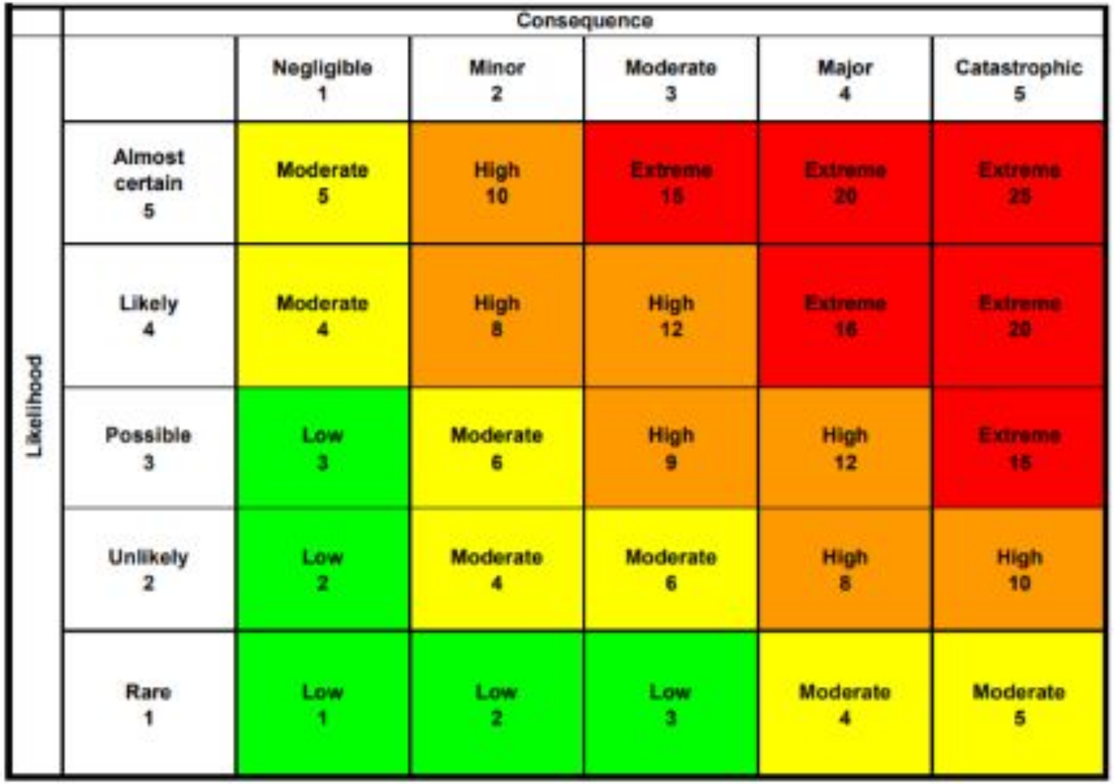
STAGING ENVIRONMENT

STAGING DONE

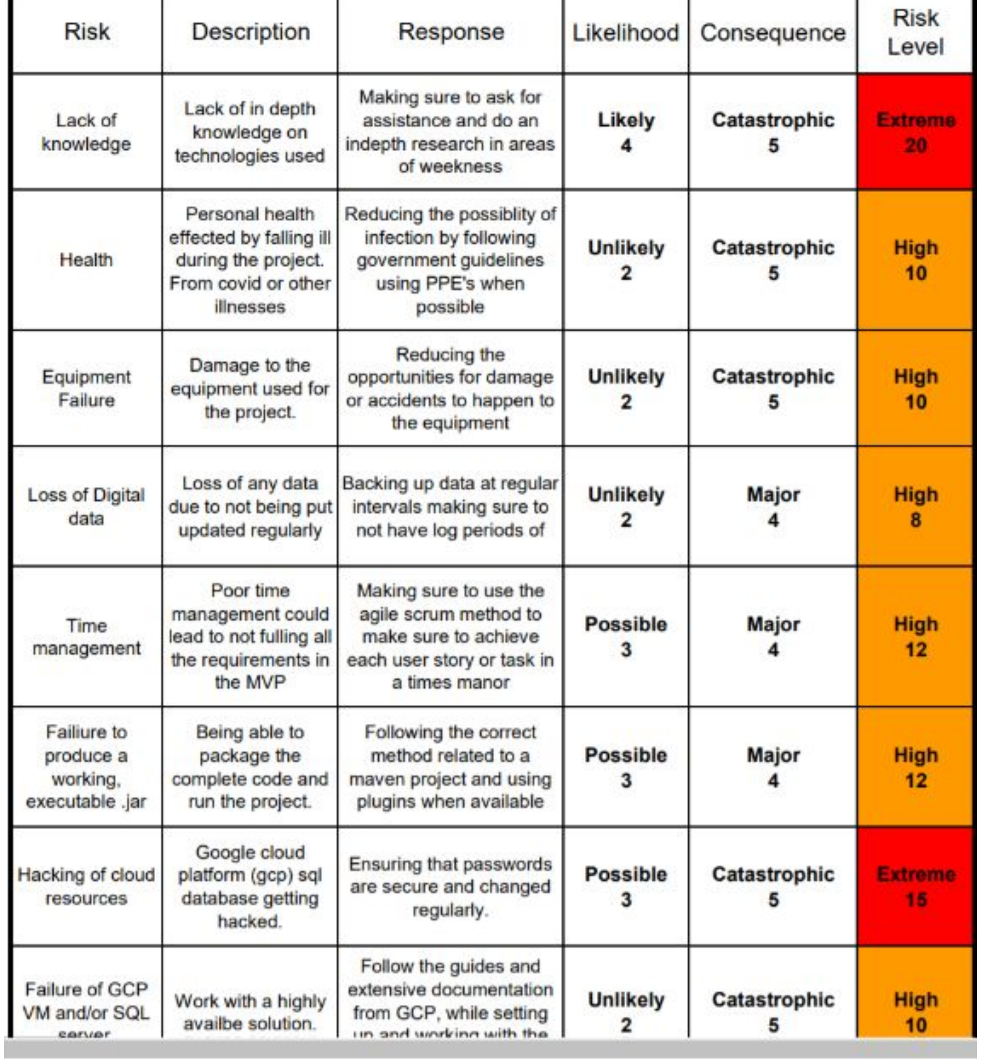
LIVE ENVIRONMENT

Google Cloud Platform

Risk Assesment Matrix



		Consequence				
		Negligible 1	Minor 2	Moderate 3	Major 4	Catastrophic 5
Likelihood	Almost certain 5	Moderate 5	High 10	Extreme 15	Extreme 20	Extreme 25
	Likely 4	Moderate 4	High 8	High 12	Extreme 16	Extreme 20
	Possible 3	Low 3	Moderate 6	High 9	High 12	Extreme 15
	Unlikely 2	Low 2	Moderate 4	Moderate 6	High 8	High 10
	Rare 1	Low 1	Low 2	Low 3	Moderate 4	Moderate 5

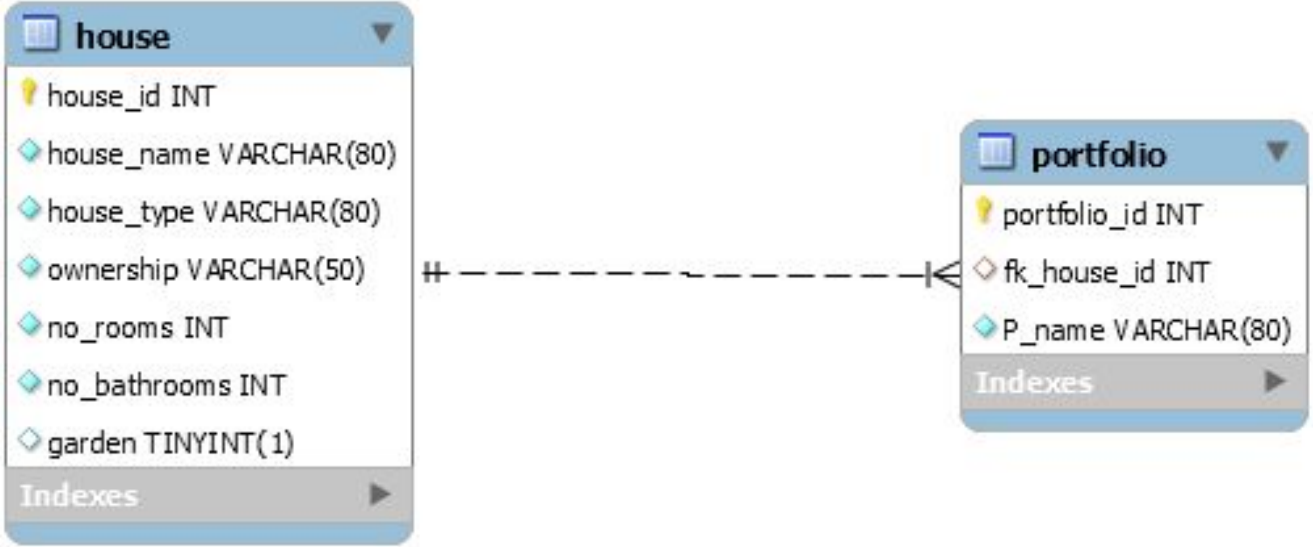


Risk	Description	Response	Likelihood	Consequence	Risk Level
Lack of knowledge	Lack of in depth knowledge on technologies used	Making sure to ask for assistance and do an indepth research in areas of weekness	**Likely** **4**	**Catastrophic** **5**	**Extreme** **20**
Health	Personal health effected by falling ill during the project. From covid or other illnesses	Reducing the possiblity of infection by following government guidelines using PPE's when possible	**Unlikely** **2**	**Catastrophic** **5**	**High** **10**
Equipment Failure	Damage to the equipment used for the project.	Reducing the opportunities for damage or accidents to happen to the equipment	**Unlikely** **2**	**Catastrophic** **5**	**High** **10**
Loss of Digital data	Loss of any data due to not being put updated regularly	Backing up data at regular intervals making sure to not have log periods of	**Unlikely** **2**	**Major** **4**	**High** **8**
Time management	Poor time management could lead to not fulling all the requirements in the MVP	Making sure to use the agile scrum method to make sure to achieve each user story or task in a times manor	**Possible** **3**	**Major** **4**	**High** **12**
Failiure to produce a working, executable .jar	Being able to package the complete code and run the project.	Following the correct method related to a maven project and using plugins when available	**Possible** **3**	**Major** **4**	**High** **12**
Hacking of cloud resources	Google cloud platform (gcp) sql database getting hacked.	Ensuring that passwords are secure and changed regularly.	**Possible** **3**	**Catastrophic** **5**	**Extreme** **15**
Failure of GCP VM and/or SQL server	Work with a highly availbe solution.	Follow the guides and extensive documentation from GCP, while setting up and working with the	**Unlikely** **2**	**Catastrophic** **5**	**High** **10**

Version control

- For handling version control Github was used to assist with being able to go between versions of code as it evolves
- If there was ever an exception in the code with regular commit, we are able to go to a version to the code that was functional and fix the problem
- For project documents snake case was used to name files, with an evolution of that document there was a versions of the document so that evolution over the project was documented

Final version of the Database



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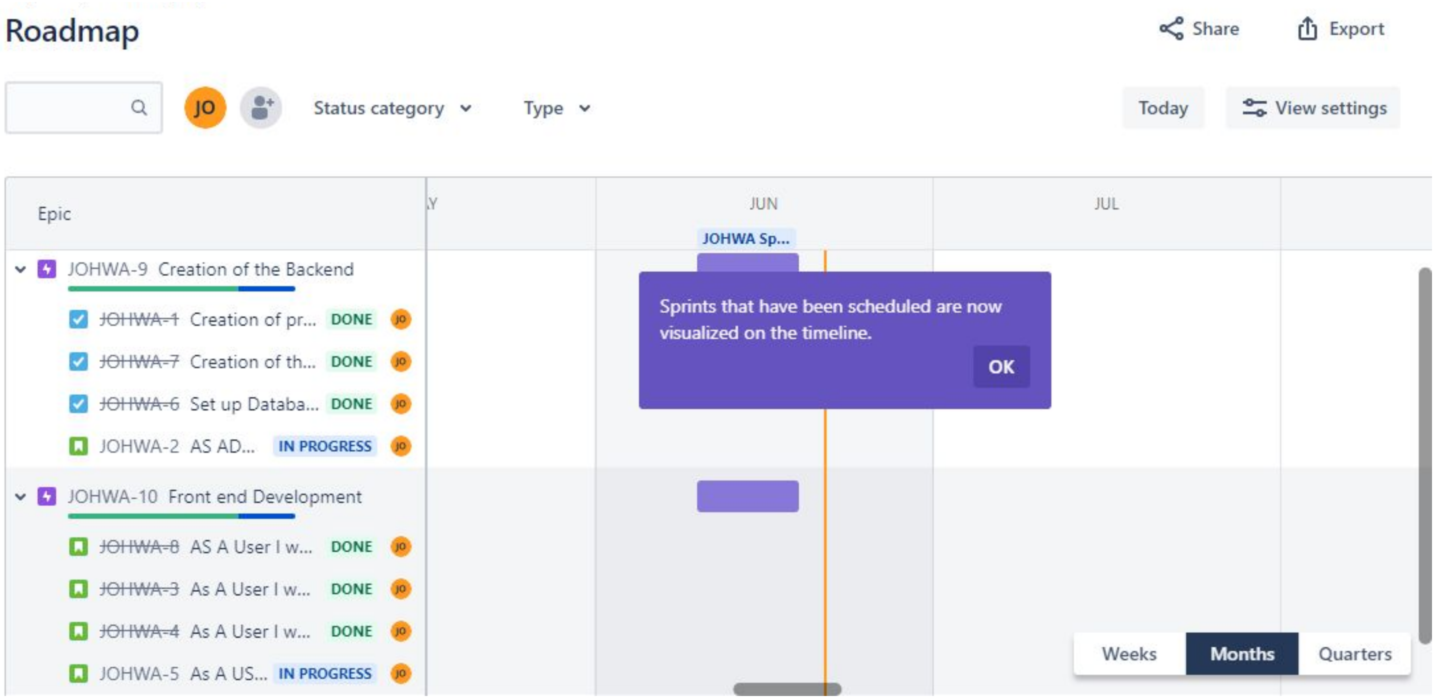
Demonstration

Sprint Review

- User stories achieved were the following:



Roadmap

JOHWA-9 Creation of the Backend

- ~~JOHWA-1~~ Creation of pr... DONE
- ~~JOHWA-7~~ Creation of th... DONE
- ~~JOHWA-6~~ Set up Databa... DONE
- JOHWA-2 AS AD... IN PROGRESS

JOHWA-10 Front end Development

- ~~JOHWA-8~~ AS A User I w... DONE
- ~~JOHWA-3~~ As A User I w... DONE
- ~~JOHWA-4~~ As A User I w... DONE
- JOHWA-5 As A US... IN PROGRESS

Sprints that have been scheduled are now visualized on the timeline.

OK

Sprint Retrospective

- Need to focus on not trying to over scope user stories
- Focus more on achieving scope and not over complicating the code
- Improving on the knowledge in testing
- Increase the knowledge in coding in the JAVA language
- Increase knowledge in coding using the Springboot framework
- The loss of time working on understanding topics

Conclusion

- The project taught a lot about the technologies used and how valuable and ingeral they are in achieving a project
- Further studying into JAVA and working on eclipse will need to be done to become a better and well rounded consultant
- Further studying into testing and how to deploy different testing technologies to be better
- More practise using sprints to achieve my user stories

Questions?