Football Squad Builder Hobby Project

By Lewis Pearson 29/07/2022

Introduction

Lewis Pearson, Mechanical Engineering graduate and Tech Specialist at QA Ltd.

Project specification is to design an application related to a hobby. For this project I've created a football squad builder.

Project Approach

Another good opportunity to learn and gain experience with new technologies in a project development environment. Specifically front-end and Spring.

This project build upon the last one as it demonstrates a simplified backend, and adds an accessible frontend

Thorough planning and use of project management tools to ensure smooth development. Understanding project requirements is important.

What was used in this project?

Git for version control

GitHub for storing source code

Jira for managing the project through a Scrum Board with User Stories and Tasks

Java backend, with a Spring application, and Maven for dependency management and building

MySQL database

Junit for testing

HTML, CSS, and JavaScript for the frontend

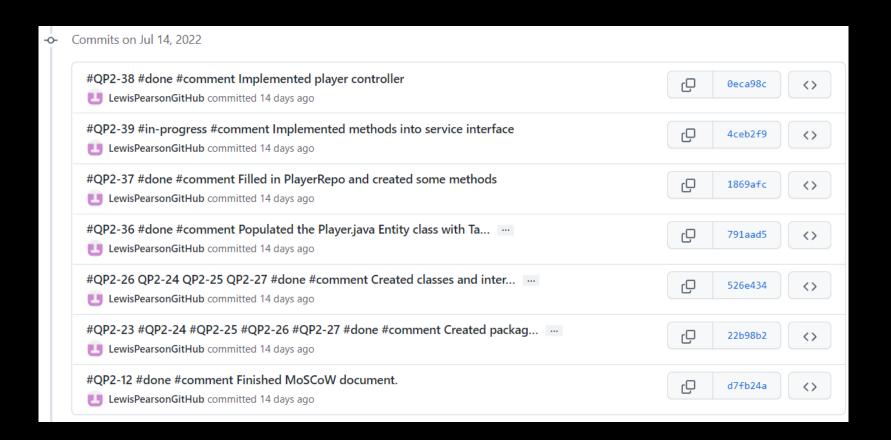
How was version control used?

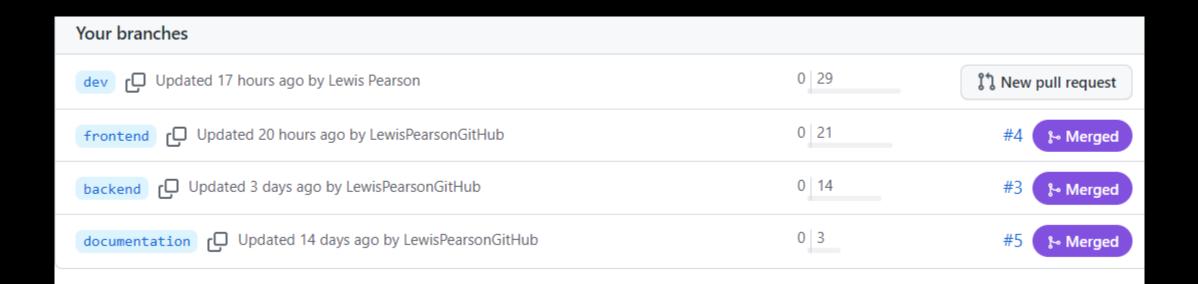
A version control system in Git was used in conjunction with the source code management website in GitHub. Additionally, Jira was used for user stories and setting out each task required in the project.

Commits were made frequently throughout the project to ensure work had been saved, and these were linked to Jira through smart commits allowing easy project tracking.

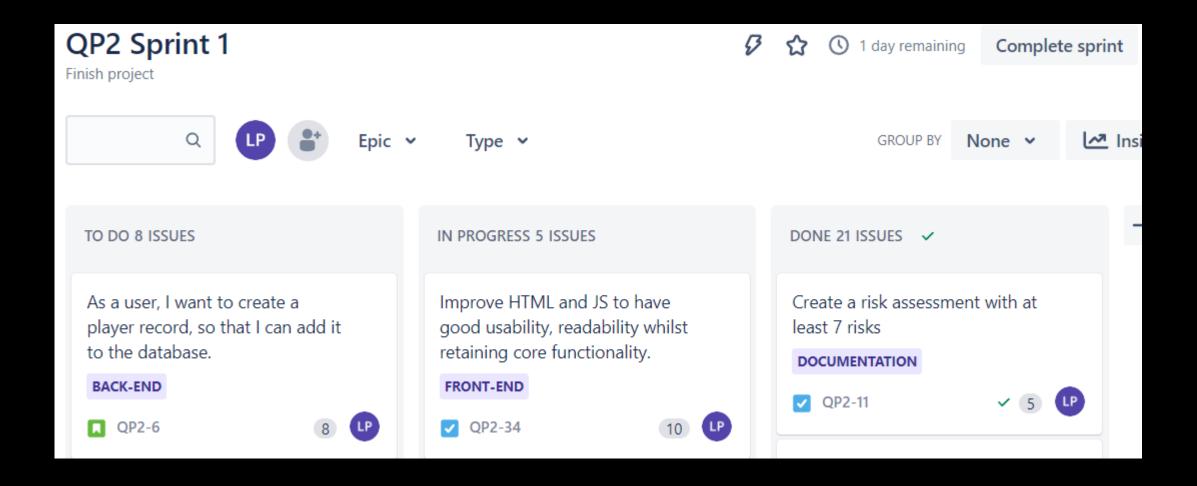
The feature-branch model was utilised to break the project into major features.

Git and GitHub



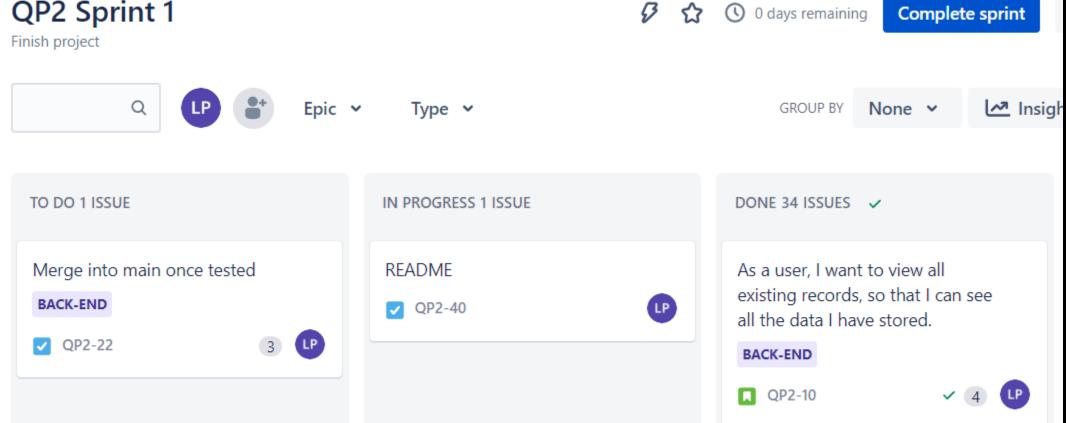


Jira





QP2 Sprint 1



Testing

src/main/java covered 98.1% by testing.

💻 Console 🔼 Terminal 📤 Coverage 🗵				₽
Element	Coverage	vered Instructions	lissed Instructions	Total Instructions
▼ ► QA-Project-2-FootballSquadBuilder	98.9 %	441	5	446
src/main/java	98.1 %	259	5	264
> == com.qa.may	37.5 %	3	5	8
> == com.qa.may.entity	100.0 %	154	0	154
> == com.qa.may.rest	100.0 %	44	0	44
> == com.qa.may.service	100.0 %	58	0	58
> 📂 src/test/java	100.0 %	182	0	182

Demonstration

As a user, I want to view player's records, so that I can get the information I require.

BACK-END

QP2-9

5

LP

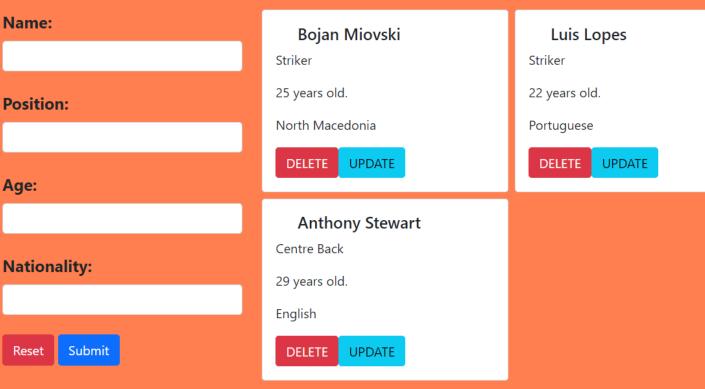
As a user, I want to create a player record, so that I can add it to the database.

BACK-END

QP2-6

QP2-6

Football Squad Creator Add players to your squad with the form below.



Sprint Review

Sprint review as of the time this presentation was given:

Completed work:

- Minimum Viable Product achieved to a good standard. Completed Risk Assessment, ERD, MoSCoW, UML, Wireframe documents.
- Test coverage of 98.1% in the backend
- Most tasks completed on project management board.

Sprint Review

Things left behind:

- Adding additional entities
- Search function
- Better frontend design
- Sonarqube

Sprint Retrospective

What could have been done better?

- The minimum viable product could have been completed earlier, allowing more time to refine the project and add additional features. However due to time constraints and disruption this would not have been easy.
- Better use of version control. Whilst the project did not have many features, perhaps more feature branches could have been utilised.

What went well?

- MVP completed to a good understand and efficiently.
- Good experience and knowledge gained in the use of frontend technologies and linking to the backend.

Conclusion

A successful project as the MVP was achieved and scope adhered to.

Lots learned regarding frontend and connecting to the backend. More experience in project planning and project management is very useful. Gaining familiarity with using the tools and technologies independently.

Future Steps

To finish off this project all that needs to be done is finishing the README file and merge into the main branch.

However, this is a project I could see myself adding onto in the future. I have some ideas that would improve the design and usability in the frontend whilst I would also like to add additional tables to store entire squads of players that could then be accessed. This would be a good challenge to make use of my skills as I get better with these technologies.

Any Questions?