

Football Squad Builder Hobby Project

By Lewis Pearson

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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

Commits on Jul 14, 2022

#QP2-38 #done #comment Implemented player controller LewisPearsonGitHub committed 14 days ago	 0eca98c	
#QP2-39 #in-progress #comment Implemented methods into service interface LewisPearsonGitHub committed 14 days ago	 4ceb2f9	
#QP2-37 #done #comment Filled in PlayerRepo and created some methods LewisPearsonGitHub committed 14 days ago	 1869afc	
#QP2-36 #done #comment Populated the Player.java Entity class with Ta... LewisPearsonGitHub committed 14 days ago	 791aad5	
#QP2-26 QP2-24 QP2-25 QP2-27 #done #comment Created classes and inter... LewisPearsonGitHub committed 14 days ago	 526e434	
#QP2-23 #QP2-24 #QP2-25 #QP2-26 #QP2-27 #done #comment Created packag... LewisPearsonGitHub committed 14 days ago	 22b98b2	
#QP2-12 #done #comment Finished MoSCoW document. LewisPearsonGitHub committed 14 days ago	 d7fb24a	




Your branches


dev	 Updated 17 hours ago by Lewis Pearson	0 29	 New pull request
frontend	 Updated 20 hours ago by LewisPearsonGitHub	0 21	#4  Merged
backend	 Updated 3 days ago by LewisPearsonGitHub	0 14	#3  Merged
documentation	 Updated 14 days ago by LewisPearsonGitHub	0 3	#5  Merged





Jira



QP2 Sprint 1

Finish project

 1 day remaining Complete sprint





 Epic  Type 

GROUP BY None   Insights

TO DO 8 ISSUES

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



BACK-END


 QP2-6 8 

IN PROGRESS 5 ISSUES

Improve HTML and JS to have good usability, readability whilst retaining core functionality.



FRONT-END

 QP2-34 10 

DONE 21 ISSUES 

Create a risk assessment with at least 7 risks

DOCUMENTATION

 QP2-11 5 

[Projects](#) / QA Project 2

QP2 Sprint 1

Finish project



0 days remaining

[Complete sprint](#)



LP



Epic ▾

Type ▾

GROUP BY

None ▾



Insights

TO DO 1 ISSUE

Merge into main once tested

BACK-END

✓ QP2-22

3

LP

IN PROGRESS 1 ISSUE

README

✓ QP2-40

LP

DONE 34 ISSUES ✓

As a user, I want to view all existing records, so that I can see all the data I have stored.

BACK-END

📌 QP2-10



4

LP

Testing


src/main/java covered 98.1% by testing.

Console Terminal Coverage ×						
Element		Coverage	Covered Instructions	Missed Instructions	Total Instructions	
▼	QA-Project-2-FootballSquadBuilder	<div><div></div></div> 98.9 %	441	5	446	
▼	src/main/java	<div><div></div></div> 98.1 %	259	5	264	
>	com.qa.may	37.5 %	3	5	8	
>	com.qa.may.entity	<div><div></div></div> 100.0 %	154	0	154	
>	com.qa.may.rest	<div><div></div></div> 100.0 %	44	0	44	
>	com.qa.may.service	<div><div></div></div> 100.0 %	58	0	58	
>	src/test/java	<div><div></div></div> 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

✓

8

LP

Football Squad Creator

Add players to your squad with the form below.

Name:

Position:

Age:

Nationality:

Reset

Submit

Bojan Miovski

Striker

25 years old.

North Macedonia

DELETE

UPDATE

Anthony Stewart

Centre Back

29 years old.

English

DELETE

UPDATE

Luis Lopes

Striker

22 years old.

Portuguese

DELETE

UPDATE

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?