Reading List Project

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Introduction

I'm Pete!

The aim of this project was to create a CRUD application with a database, API & front-end

I chose the topic of a reading list

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How I prepared for the project and what tools I used

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Any questions you have at the end

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Planning

How I prepared for the project and what tools I used

Project timeline

Monday

Construct Jira board, write back-end tests, some documentation

Tuesday

Write back-end functionality & begin front-end

Wednesday

Finish front-end functionality & begin styling

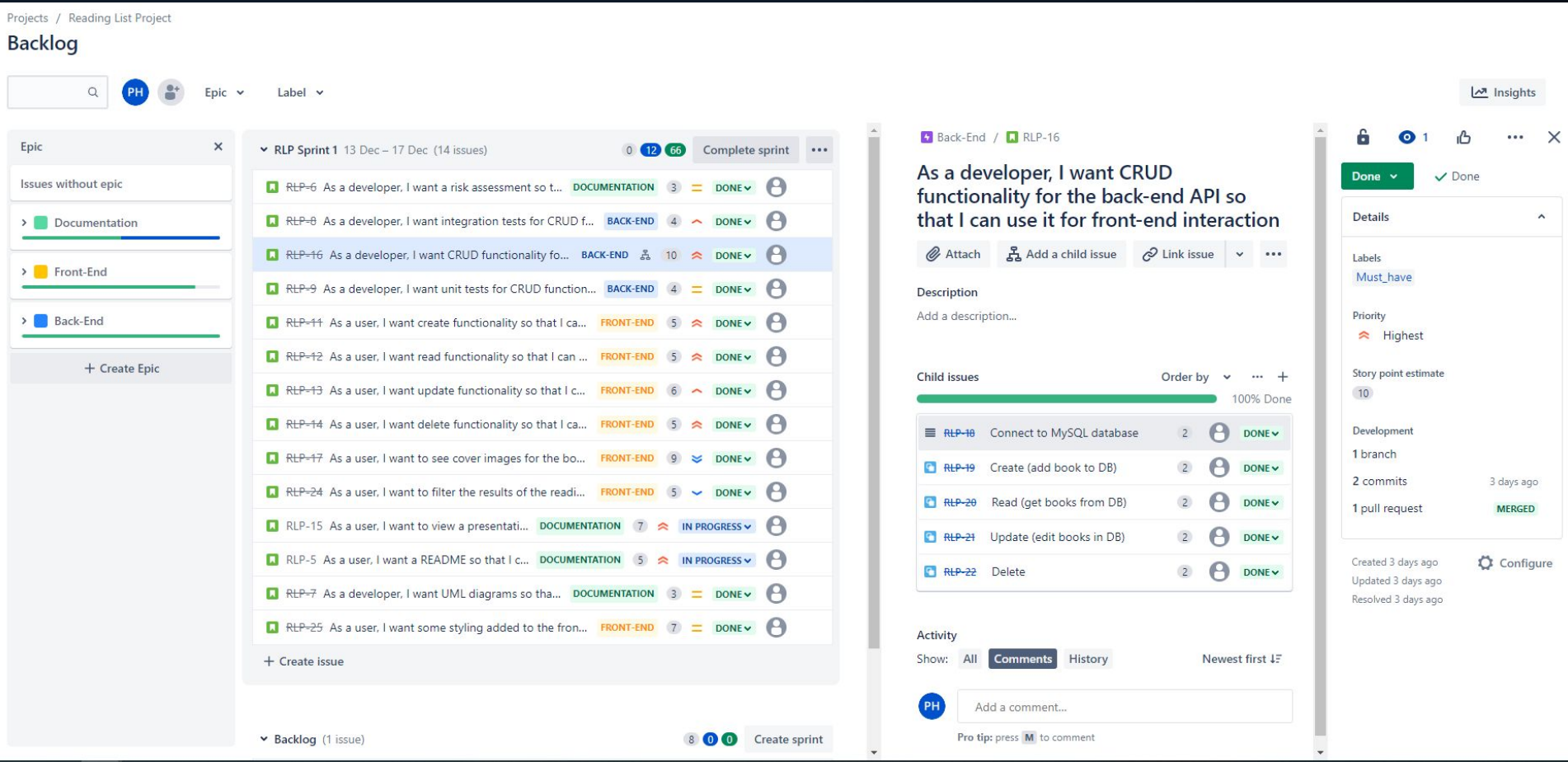
Thursday

Finish styling for front-end, complete readme & documentation

Friday

Present project & add any final touches if necessary

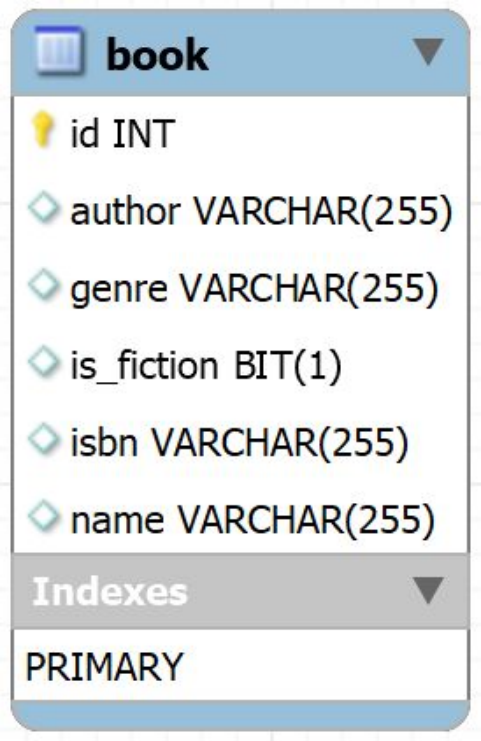
Jira board


Projects / Reading List Project
Backlog
PH
Epic
Label
Insights
Epic
Issues without epic
Documentation
Front-End
Back-End
Create Epic
RLP Sprint 1 13 Dec – 17 Dec (14 issues)
0 12 66
Complete sprint
RLP-6 As a developer, I want a risk assessment so t... DOCUMENTATION 3 DONE
RLP-8 As a developer, I want integration tests for CRUD f... BACK-END 4 DONE
RLP-16 As a developer, I want CRUD functionality fo... BACK-END 10 DONE
RLP-9 As a developer, I want unit tests for CRUD function... BACK-END 4 DONE
RLP-11 As a user, I want create functionality so that I ca... FRONT-END 5 DONE
RLP-12 As a user, I want read functionality so that I can ... FRONT-END 5 DONE
RLP-13 As a user, I want update functionality so that I c... FRONT-END 6 DONE
RLP-14 As a user, I want delete functionality so that I ca... FRONT-END 5 DONE
RLP-17 As a user, I want to see cover images for the bo... FRONT-END 9 DONE
RLP-24 As a user, I want to filter the results of the readi... FRONT-END 5 DONE
RLP-15 As a user, I want to view a presentati... DOCUMENTATION 7 IN PROGRESS
RLP-5 As a user, I want a README so that I c... DOCUMENTATION 5 IN PROGRESS
RLP-7 As a developer, I want UML diagrams so tha... DOCUMENTATION 3 DONE
RLP-25 As a user, I want some styling added to the fron... FRONT-END 7 DONE
Create issue
Backlog (1 issue)
8 0 0
Create sprint
Back-End / RLP-16
As a developer, I want CRUD functionality for the back-end API so that I can use it for front-end interaction
Attach
Add a child issue
Link issue
Description
Add a description...
Child issues
Order by
100% Done
RLP-18 Connect to MySQL database 2 DONE
RLP-19 Create (add book to DB) 2 DONE
RLP-20 Read (get books from DB) 2 DONE
RLP-21 Update (edit books in DB) 2 DONE
RLP-22 Delete 2 DONE
Activity
Show: All Comments History
Newest first
PH
Add a comment...
Pro tip: press M to comment
1
Done
Done
Details
Labels
Must_have
Priority
Highest
Story point estimate
10
Development
1 branch
2 commits 3 days ago
1 pull request MERGED
Created 3 days ago
Updated 3 days ago
Resolved 3 days ago
Configure

2

Back-end

How the back-end was constructed



MySQL Database

Single table to store the books in the reading list

Auto-incremented ID as the primary key

Example data

book

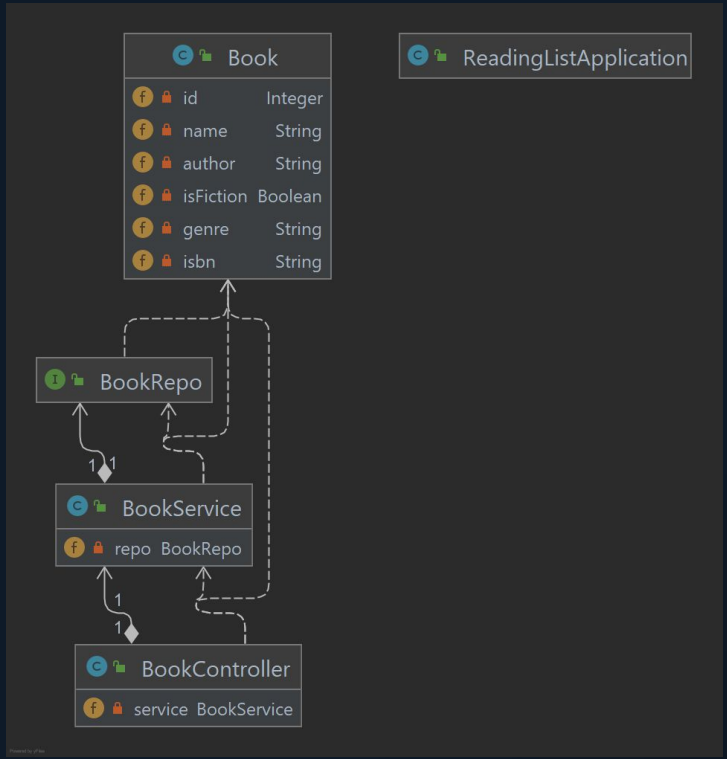
Limit to 1000 rows

```
1 •  SELECT * FROM reading_list.book;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	author	genre	is_fiction	isbn	name
2	Tim Harford	Economics	0	9780349119854	The UnderCover Economist
3	Frank Herbert	Science Fiction	1	9780340960196	Dune
8	Mariana Mazzucato	Economics	0	9780241347799	The Value of Everything
9	George Orwell	Politics/Satire	1	9780141182704	Animal Farm
10	Robert C. Martin	IT/Computing	0	9780137081073	The Clean Coder
16	Louisa May Alcott	Coming-of-ag...	1	9781566194754	Little Women
17	David Spiegelhalter	Statistics/Mat...	0	9780241258767	The Art of Statistics
18	Niccolo Machiavelli	Political Philos...	0	9780140449150	The Prince
19	F. Scott Fitzgerald	Historical Ficti...	1	9780141182636	The Great Gatsby
21	Stuart Russell	Science/Artifi...	0	9780525558637	Human Compatible
22	Alan Partridge (Ste...	Comedy	1	9780007449170	I, Partridge: We Need To Talk...
23	Ted Chiang	Science Fiction	1	9781529039436	Stories Of Your Life
24	Daniel Kahneman	Psychology	0	9780385676533	Thinking, Fast and Slow
25	Abhijit Banerjee & ...	Economics	0	9789353450700	Good Economics For Hard Times
26	George Orwell	Dystopian/Sci...	1	9780141919959	Nineteen Eighty-Four
27	Charles Dickens	Victorian Liter...	1	9781536857108	A Christmas Carol
28	Yanis Varoufakis	Economics/Po...	0	9781612199573	Another Now
29	Simon Blackburn	Philosophy	0	0192100246	Think
NULL	NULL	NULL	NULL	NULL	NULL

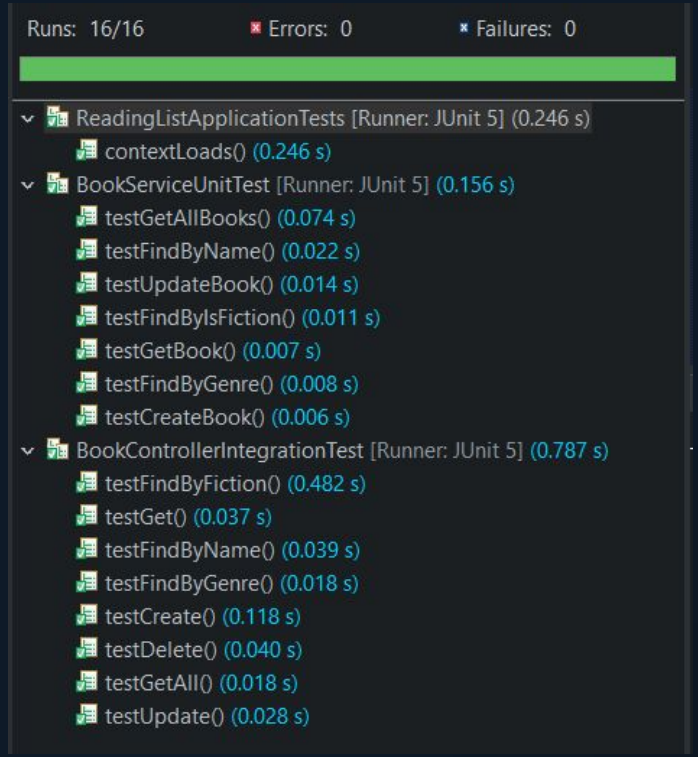
Back-end Structure



BookController	
service	BookService
BookController(BookService)	
createBook(Book)	ResponseEntity<Book>
deleteBook(Integer)	ResponseEntity<?>
findByFiction(Boolean)	ResponseEntity<List<Book>>
findByGenre(String)	ResponseEntity<List<Book>>
findByName(String)	ResponseEntity<List<Book>>
getAllBooks()	ResponseEntity<List<Book>>
getBook(Integer)	ResponseEntity<Book>
updateBook(Integer, Book)	ResponseEntity<Book>

Book	
id	Integer
name	String
author	String
isFiction	Boolean
genre	String
isbn	String
Book()	
Book(Integer, String, String, Boolean, String, String)	
Book(String, String, Boolean, String)	
Book(String, String, Boolean, String, String)	
equals(Object)	boolean
getAuthor()	String
getGenre()	String
getId()	Integer
getIsFiction()	Boolean
getIsbn()	String
getName()	String
setAuthor(String)	void
setGenre(String)	void
setId(Integer)	void
setIsFiction(Boolean)	void
setIsbn(String)	void
setName(String)	void

Test-Driven Development



Element	Coverage	Covered Instructions	Missed Instructions	Total Instructions
Reading-List	97.1 %	973	29	1,002
src/main/java	90.8 %	286	29	315
com.bae.domain	84.8 %	134	24	158
Book.java	84.8 %	134	24	158
com.bae	37.5 %	3	5	8
com.bae.service	100.0 %	78	0	78
BookService.java	100.0 %	78	0	78
com.bae.web	100.0 %	71	0	71
BookController.java	100.0 %	71	0	71
src/test/java	100.0 %	687	0	687
com.bae	100.0 %	4	0	4
ReadingListApplicationTests.j	100.0 %	4	0	4
com.bae.service	100.0 %	323	0	323
BookServiceUnitTest.java	100.0 %	323	0	323
com.bae.web	100.0 %	360	0	360
BookControllerIntegrationTes	100.0 %	360	0	360

3

Front-end

How the front-end was constructed

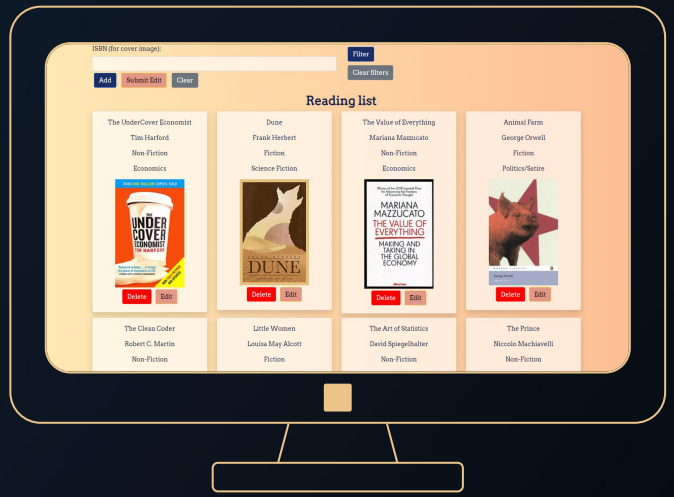
Front-end Technologies

- Standard HTML, CSS and JavaScript were used to build the front-end
  - All of it was written in VSCode
- Frequent usage of the Live Server extension to view changes as they were made
  - Internet Archive's Open Library API was used to retrieve book covers
  - Bootstrap framework was used for styling and to add responsiveness

4

Demonstration

Quick demo of how to use the reading list



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Summary

Sprint review & retrospective
for the project

Sprint Review

What did I complete?

I met every objective in the project specification (MVP)

Learned how to use the relevant tools and technologies and implemented them across the project appropriately

Managed to adhere to TDD and kept documentation of the project to detail the work I completed

What got left behind?

I had hoped to include use of Selenium for front-end testing, but there wasn't time it to be covered before/during the project week

While not in the Sprint for the week, use of modals could have improved useability

Sprint Retrospective

What went well?

Creating the back-end was a smooth and quick process using Spring & managed to incorporate TDD comfortably as well

Planning & organising the project using Jira, and setting myself daily tasks/deadlines to make sure I stayed on track to complete everything I wanted to

Using online resources such as Open Library's API, Bootstrap docs, W3Schools etc. to quickly find solutions to any problems I came across

What could be improved?

With more experience, I could have a clearer picture of how to design & style a front-end so that looks better and more professional

Conclusion

I'm happy to met all the objectives within the project specification

I've learnt a lot of new skills - particularly on the front-end dev side

I'm excited to improve and try out these new skills on future projects!

Thanks!

Do you have any questions?

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github.com/PeteH1/Reading-List-Frontend
github.com/PeteH1/Reading-List-Backend