



Practical Project Specification

22MayEnable2

Introduction

- The week9 Project involved creating an OOP-based application with CRUD (Create, Read , Update and Delete).
- A Database with a Book entity.
- Creating an interactive user friendly local hosted site.



Tools

- Back-end:
 - ✓ Java using Spring Boot and Maven
 - ✓ For testing: JUnit
 - ✓ My SQL database
- Front-end:
 - ✓ JavaScript, HTML, CSS
 - ✓ Bootstrap
- Jira
- GitHub

Risk Assessment:

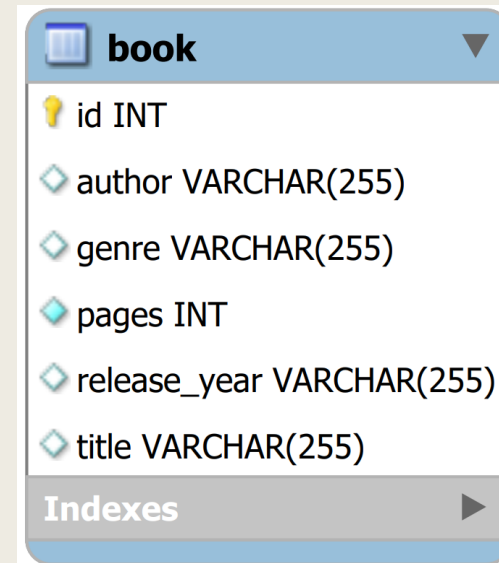
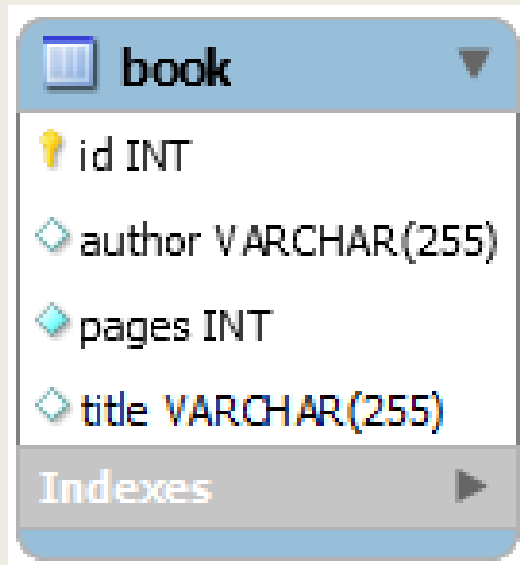
| Risk | Risk Statement | Response Strategy | Objectives | Likelihood | Impact | Risk Level |
|----------------------------------|--|--|---|------------|--------|------------|
| Illness | The rate of completing the project will be negatively impacted due to illness | Rest and create a project plan that can account for the time loss due to illness | To protect your health and recover as well as reduce the impact of time lost | Medium | High | 8 |
| Internet Failure | The rate of completing the project will be negatively impacted due to illness | Contact network provider and/or use your phone to connect to the internet for short-term internet access. | To ensure the completion of the project objectives on time by reducing the impact of losing internet connectivity. | Low | Medium | 4 |
| Technical Difficulties | mistakenly erasing your entire project, or sections of my project from your computer. | Ensure all files are routinely pushed on GitHub so that data may be cloned from the repository in the event of a loss. | To ensure access to the website throughout development and post deployment. | Low | High | 7 |
| Loss/Broken of laptop | A broken laptop would result in not being able to complete the project | Have another device that is accessible to you, that allows the download all of the necessary software for this project and use GitHub to clone your recent progress | To ensure access to your work regardless of which device. | Low | High | 7 |
| GitHub Failure | GitHub servers going down leads to temporarily not having access to your repository or to losing data and development progress | Make a regular hard backup on a non-cloud service | To ensure you don't lose your work | Low | High | 7 |
| Failure to Meet Project Deadline | Poor time management leading to the product not being deployed by the deadline | Ensure project is planned thoroughly and managed throughout. | Finish project on time and to a good standard. | Low | High | 7 |
| Hardware Failure | Renewals aren't carried out for web server and domain names leading to website outages until contracts are renewed. | Ensure that all contracts are available to be viewed by relevant parties, and calendar entries are set up with reminders, while also setting up email notifications for when renewals are due. | Prevent the domain name from being lost and having outages due to the web server being removed as it is no longer in service. | Low | High | 7 |
| Joint Pains | Constantly sitting could lead to a negative impact on the physical body | It is important to stand and stretch every hour to prevent joint pains | To protect your health and ensure you're not damaging your physical body | High | Medium | 6 |

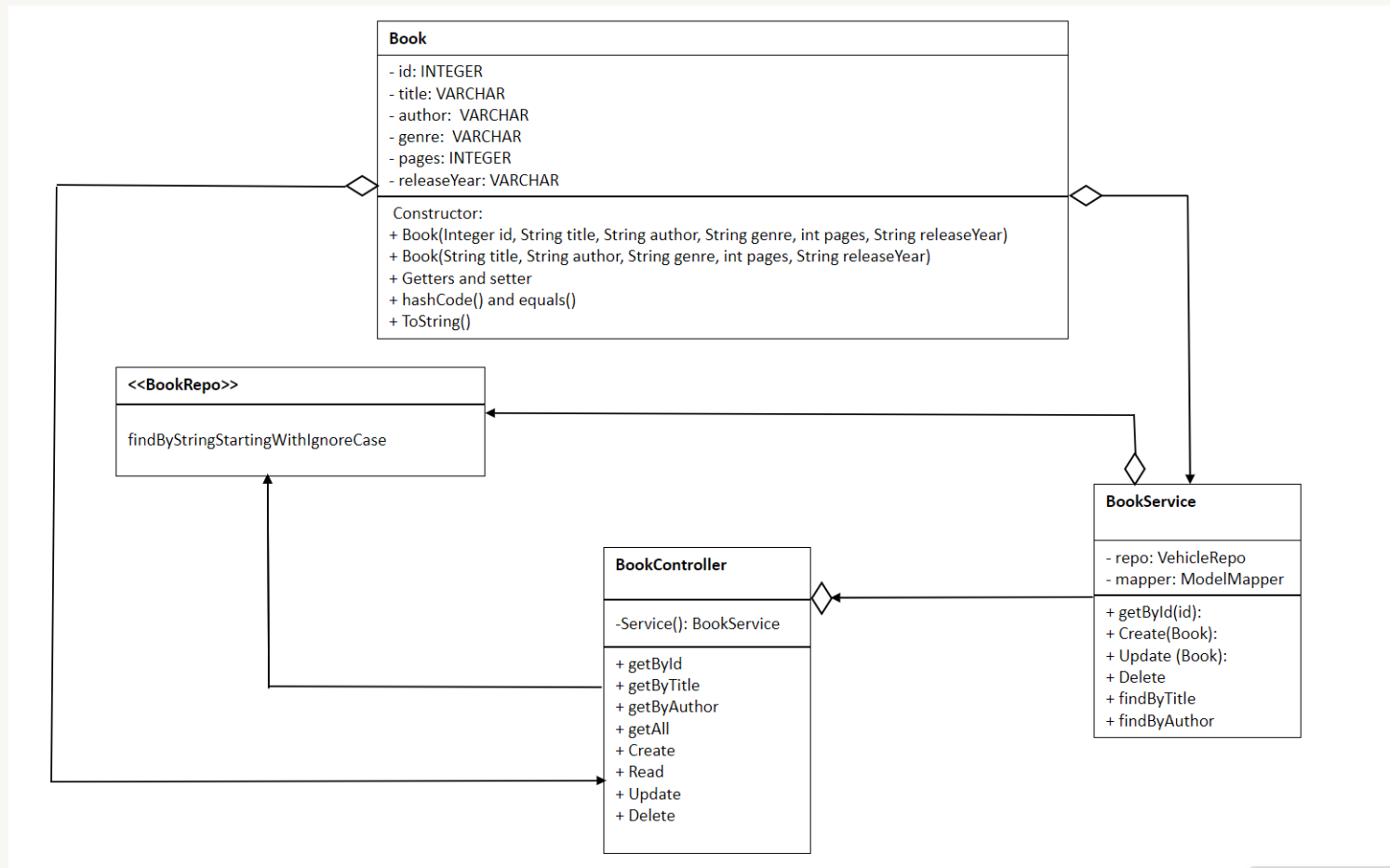
| | | Impact | | |
|------------|--------|--------|--------|------|
| | | Low | Medium | High |
| Likelihood | Low | 1 | 4 | 7 |
| | Medium | 2 | 5 | 8 |
| | High | 3 | 6 | 9 |

MoSCOW

| Must have: | Should have: | Could have: | Won't have: |
|---|--|---|-------------|
| ✓ Working OOP application. | ✓ A search function to find the books in their reading list. | ✓ A user login page. | ✓ Adverts. |
| ✓ User must be able to create/read/update/delete. | ✓ A home page. | ✓ Images attached to each book in the reading list. | ✓ Cookies. |
| ✓ Data has to be displayed in an easy to read manner. | | ✓ A comment section for each book. | |
| ✓ A test coverage of 80%. | | | |

Entity relationship diagram





UML diagram

Epic ×

Issues without epic

> Testing

> Front-End

> Back-end

> Documentation

+ Create Epic

▼ Week 9 - ReadingList 28 Jul – 29 Jul (19 issues)

complete Software Core - Practical Project Specification

0 3 61

Complete sprint


...


| | | | | | |
|--------|--|---------------|---|---------------|--|
| HB-122 | As a developer, I need to create book repo class | BACK-END | 4 | DONE ▼ | |
| HB-123 | As a developer, I need to create book entity class | BACK-END | 2 | DONE ▼ | |
| HB-125 | As a developer, I need to create book rest class | BACK-END | 2 | DONE ▼ | |
| HB-124 | As a developer, I need to create book service interface | BACK-END | 4 | DONE ▼ | |
| HB-129 | As a developer, I need to Create book service DB | BACK-END | 4 | DONE ▼ | |
| HB-130 | As a developer, I need to Create Application properties | BACK-END | 2 | DONE ▼ | |
| HB-132 | As a developer, I need to Create book-schema | BACK-END | 5 | DONE ▼ | |
| HB-133 | As a developer, I need to create book data | TESTING | 2 | DONE ▼ | |
| HB-137 | As a developer, I need to Create risk assessment | DOCUMENTATION | 1 | DONE ▼ | |
| HB-139 | As a developer, I need to Create ERD | DOCUMENTATION | 1 | DONE ▼ | |
| HB-140 | As a developer, I need to Create UML | DOCUMENTATION | 2 | DONE ▼ | |
| HB-141 | As a developer, I need to Create Powerpoint | DOCUMENTATION | 6 | DONE ▼ | |
| HB-142 | As a developer, I need to use JUnit to test repo | TESTING | 5 | DONE ▼ | |
| HB-143 | As a developer, I need to create book.html - Homepage | FRONT-END | 3 | DONE ▼ | |
| HB-145 | As a developer, I need to create book.html CRUD page | FRONT-END | 7 | DONE ▼ | |
| HB-147 | As a developer, I need to create search-box.html search page | FRONT-END | 5 | DONE ▼ | |
| HB-148 | As a developer, I need to add Style.ccs | FRONT-END | 4 | DONE ▼ | |
| HB-149 | As a developer, I need to create ReadMe.md file | DOCUMENTATION | 3 | IN PROGRESS ▼ | |
| HB-150 | As a developer, I need to use JUnit to test entity class | TESTING | 2 | DONE ▼ | |


+ Create Issue






ReadingList Sprint

User Stories with Tasks




 Insights

 Back-end /

 HB-130

  1   ... 

As a developer, I need to Create Application properties

   ...

Done ▾

✓ Done


Description

Add a description...

Child issues


Order by ▾ ... +

100% Done


 HB-156

create a application pr...

-




DONE ▾


 HB-157

create a application-p...

-




DONE ▾

 HB-158

create a application-te...

-




DONE ▾

Details

^

Assignee

 Unassigned

[Assign to me](#)

Labels

None


Sprint


[Week 9 - ReadingList](#)


Story point estimate

2

Development

 [Create branch](#) ▾

 [Create commit](#) ▾



Add a comment...

Pro tip: press **M** to comment

| |
|---|
| <div> Merge pull request #1 from HodanB/feature1 </div> <div> HodanB committed 8 days ago </div> <div> Verified 82b763b <> </div> |
| Commits on Jul 21, 2022 |
| <div> created controller and service </div> <div> HodanB committed 7 days ago </div> <div> e92c5ee <> </div> |
| <div> Merge pull request #2 from HodanB/feature2 </div> <div> HodanB committed 7 days ago </div> <div> Verified 80f185f <> </div> |
| <div> created application properties </div> <div> HodanB committed 7 days ago </div> <div> a1812e2 <> </div> |
| <div> Merge pull request #3 from HodanB/feature3 </div> <div> HodanB committed 7 days ago </div> <div> Verified c9da9d2 <> </div> |
| Commits on Jul 22, 2022 |
| <div> Create books-schema.sql </div> <div> HodanB committed 7 days ago </div> <div> c750fa4 <> </div> |
| <div> Merge pull request #4 from HodanB/feature4 </div> <div> HodanB committed 7 days ago </div> <div> Verified 00269fa <> </div> |
| <div> Create books-data.sql </div> <div> HodanB committed 6 days ago </div> <div> 4f1a79a <> </div> |
| <div> Merge pull request #5 from HodanB/feature5 </div> <div> HodanB committed 6 days ago </div> <div> Verified aa7542e <> </div> |
| Commits on Jul 23, 2022 |
| <div> controller and entity testing </div> <div> HodanB committed 5 days ago </div> <div> e46d7aa <> </div> |
| <div> backend testing </div> <div> HodanB committed 5 days ago </div> <div> b047e64 <> </div> |
| <div> Merge pull request #6 from HodanB/feature6 </div> <div> HodanB committed 5 days ago </div> <div> Verified d064517 <> </div> |
| Commits on Jul 24, 2022 |
| <div> Front End </div> <div> HodanB committed 4 days ago </div> <div> 9b4a2af <> </div> |
| <div> Merge pull request #8 from HodanB/feature7 </div> <div> HodanB committed 4 days ago </div> <div> Verified e040756 <> </div> |
| <div> linked back end to sql </div> <div> HodanB committed 4 days ago </div> <div> 883c90e <> </div> |
| <div> Merge pull request #9 from HodanB/feature8 </div> <div> HodanB committed 4 days ago </div> <div> Verified 727a9e3 <> </div> |
| Commits on Jul 25, 2022 |
| <div> Added search function </div> <div> HodanB committed 3 days ago </div> <div> 6541306 <> </div> |
| <div> Merge pull request #10 from HodanB/feature9 </div> <div> HodanB committed 3 days ago </div> <div> Verified 0016f64 <> </div> |

GitHub

- For this project, I had to create multiple feature and work within them branches to then be merged with my develop branch.

- My main branch remained the same during the project until my software was functioning, passes testing to an industry standard and packages correctly.

Version Control

Each epic = new feature

In Develop branch a feature branch was created by using:

"git checkout -b feature"

After each feature is done:

- Git add .

Then "git commit -m "..."

"git push"

Merge with dev branch in GitHub

To pull to my local in Git bash terminal:

"git pull" in develop branch

Create new feature branch

Front-end

Design:

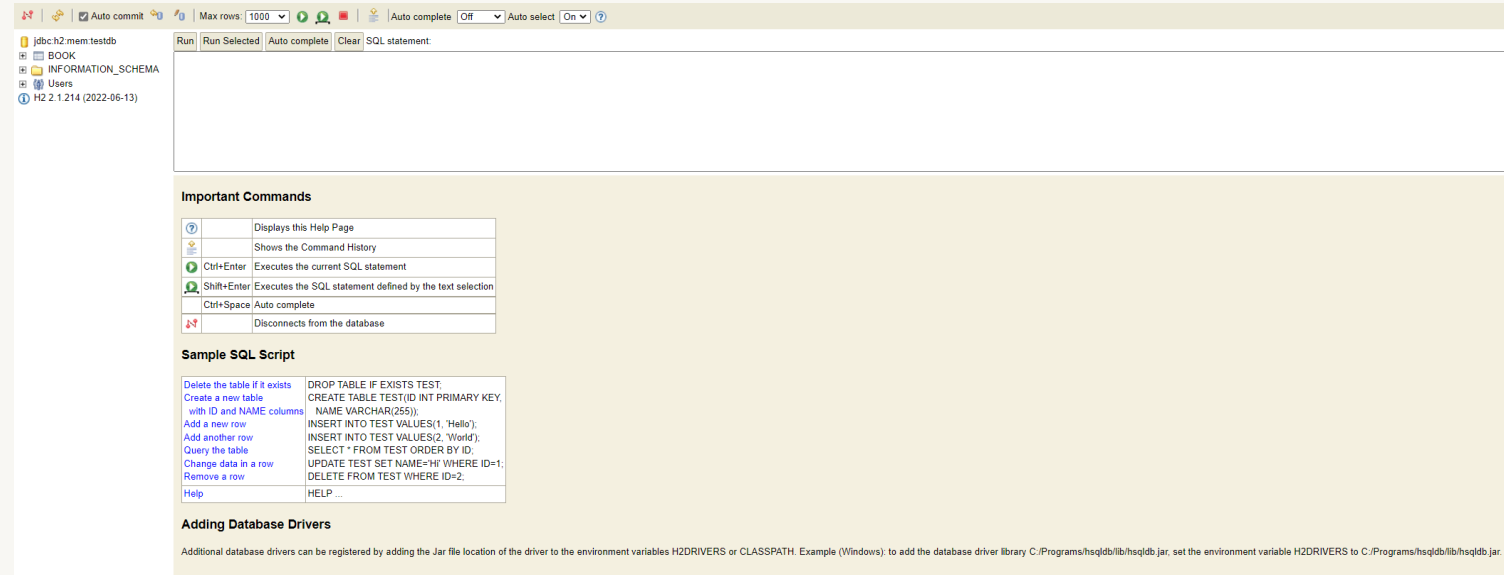
- HTML
- Bootstrap
- CSS

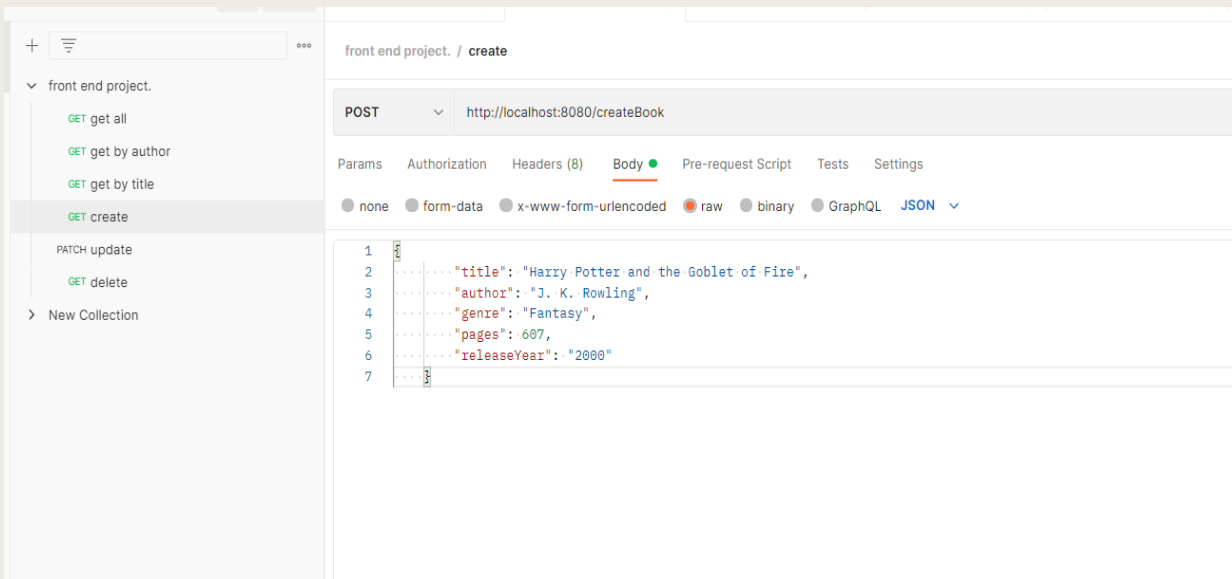
JavaScript:

- Adds interactive features
- Fetch API
- Retrieve data

H2-Console

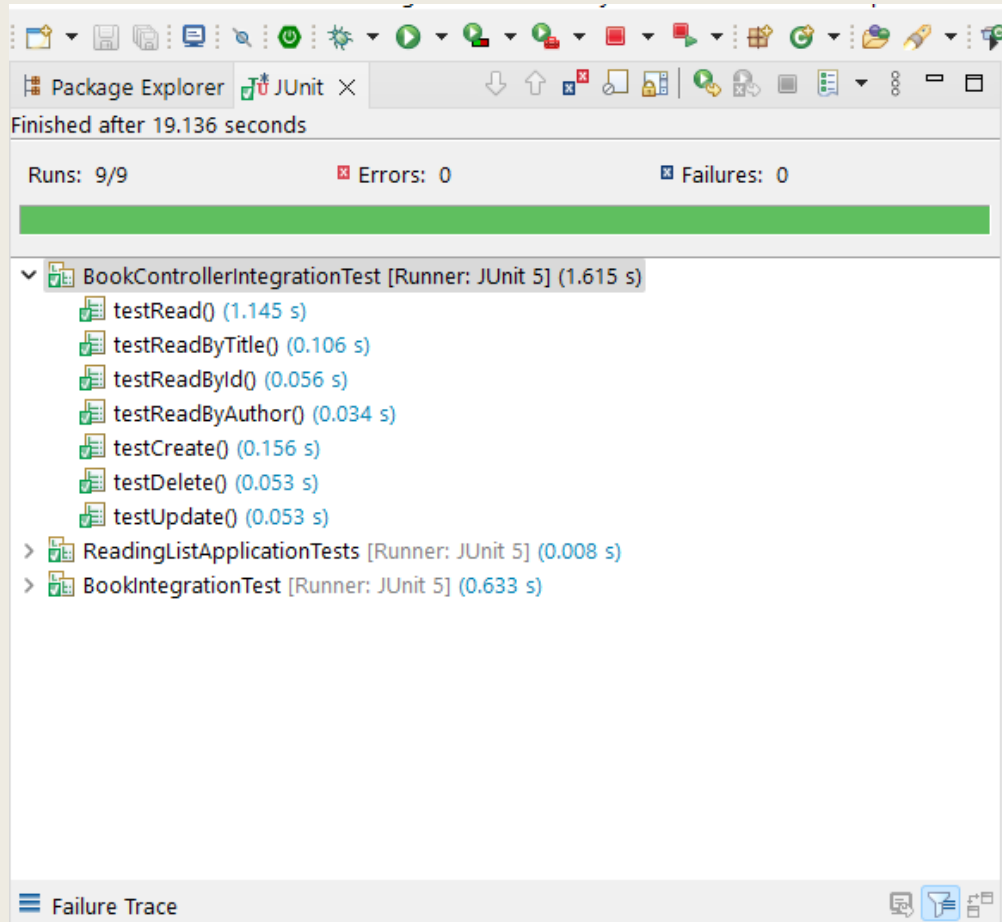
- Manual testing.
- Let's you access a database using a browser.





Postman







- Manual testing.
- To build a request to send to the local server, and log entries the entries



MockMvc Testing

- To test the HTTP request and ensure it passes by testing the Controller class

Test Coverage

| Problems @ Javadoc Declaration Console Coverage X | | | | |
|---|---|----------------------|----------------------|--------------------|
| ReadingList (27 Jul 2022 09:43:28) | | | | |
| Element | Coverage | Covered Instructi... | Missed Instructio... | Total Instructions |
| ▼ ReadingList |  99.2 % | 591 | 5 | 596 |
| ▼ src/main/java |  98.5 % | 339 | 5 | 344 |
| > com.example.demo | 37.5 % | 3 | 5 | 8 |
| > com.example.demo.entity |  100.0 % | 202 | 0 | 202 |
| > com.example.demo.rest |  100.0 % | 61 | 0 | 61 |
| > com.example.demo.service |  100.0 % | 73 | 0 | 73 |
| > src/test/java |  100.0 % | 252 | 0 | 252 |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

Demonstration

Performance Review

18 out of 19 issues were completed, with ReadMe file in progress.



Minimum set of requirements completed.



Most of Must have/Should have were completed.



User Friendly application with CRUD functionality.