

Inventory Management System Week 5 Project

BY LEWIS PEARSON

10/06/2022

Introduction



**Lewis Pearson, Mechanical Engineer
graduate from the University of Aberdeen**



Project Approach:

Great opportunity to learn and gain experience using these technologies in a project environment

Plan thoroughly at the beginning of the project but also throughout utilise project management tools

Understand scope of project and what is needed.

Consultant Journey

Technologies learned for this project

- Git for Version Control
- GitHub for Source Code Management
- Jira for a Scrum Board with User Stories and Tasks
- Java for programming the back-end, including JDBC for database connectivity
- MySQL for the database
- Junit and Mockito for the testing
- Maven for building

Continuous Integration

- Git and GitHub
- Jira for user stories and tasks

Used throughout the project to keep track of what work needed to be done, and what had been done already. Git was used for version control and with smart commits could be linked to Jira. Feature branches were created for significant developments and merged into the dev branch once it was working. Regular commits to keep track of work and prevent losing anything.

Git and GitHub

Your branches

Testing  Updated 6 minutes ago by LewisPearsonGitHub



dev  Updated yesterday by LewisPearsonGitHub



cost2  Updated yesterday by LewisPearsonGitHub

#7

Merged



Costs  Updated 2 days ago by LewisPearsonGitHub



orders  Updated 2 days ago by LewisPearsonGitHub

#5

Merged



[View more of your branches >](#)

Git and GitHub

dev ▾

10 branches

0 tags

Go to file


Add file ▾







Code ▾

This branch is 36 commits ahead of jordanbenbelaid:main.

Contribute ▾

Fetch upstream ▾

 LewisPearsonGitHub Merge pull request #7 from LewisPearsonGitHub/cost2 ... 7673e39 yesterday 40 commits

 Documentation	LPP-3 #comment Added ERD diagrams 1,2,3	4 days ago
 src	changes to orders.java	yesterday
 .gitignore	Relevant files added	4 days ago
 LICENSE.md	Relevant files added	4 days ago
 README.md	LPP-38 #in-progress #comment Added some information to the READM...	4 days ago
 pom.xml	Relevant files added	4 days ago

Jira

Projects / Week5 Project

Backlog

Search LP + Epic Type Insights

<input checked="" type="checkbox"/>	⌚PP-50 Update Menu for ordersitems	BACK-END	3	DONE	LP
<input checked="" type="checkbox"/>	⌚PP-2 As the developer, I want a relational database set up so that I can a...	DATABASE	5	DONE	
<input checked="" type="checkbox"/>	⌚PP-48 Create OrdersItems Controller	BACK-END	8	DONE	LP
<input checked="" type="checkbox"/>	⌚PP-24 As a user, I want to delete orders, so that I can get rid of any order...	BACK-END	5	DONE	
<input checked="" type="checkbox"/>	⌚PP-49 Update IMS file for OrdersItems	BACK-END	3	DONE	LP
<input checked="" type="checkbox"/>	⌚PP-55 Create better version for displaying total cost for orders - within orders menu		5	DONE	LP

Jira

Week 5 project - IMS

Finish week 5 project



LP



Epic ▾

Type ▾

TO DO 6 ISSUES

Merge dev branch into main
once tests have succeeded

GIT VERSION CONTROL

✓ LPP-28

3

Use Maven for build of
application

📖 LPP-6

5

IN PROGRESS 2 ISSUES

Create a risk assessment with
minimum 6 risks.

DOCUMENTATION

✓ LPP-26

5

Fill out README file with
appropriate information

✓ LPP-38



LP

DONE 36 ISSUES ✓

Fork project repository

GIT VERSION CONTROL

✓ LPP-29

✓ 1

Update Menu for ordersitems

BACK-END

✓ LPP-50

✓ 3




LP

Testing

Tests written for:

- Customers class – Domain, DAO, and Controller
- Items classes – Domain, DAO, and Controller
- Orders classes – Domain, DAO, and Controller
- OrdersItems Classes - – Domain, DAO, and Controller

Testing

Console Problems Debug Shell Search Terminal Coverage ×					
Element	Coverage	Covered Instructions	Missed Instructions	Total Instructions	
IMS-22EnableMay2	 80.4 %	3,447	839	4,286	
> src/main/java	 74.3 %	2,074	718	2,792	
> src/test/java	 91.9 %	1,373	121	1,494	

Demonstration

Database / LPP-2

As the developer, I want a relational database set up so that I can access information with the application

Attach Add a child issue Link issue

Description

Add a description...

Activity

Show: All Comments History Newest first

LP Add a comment...
Pro tip: press M to comment

LP Lewis Pearson 4 days ago
Modified schema and added orders,items,order_items
Edit · Delete ·

LP Lewis Pearson 4 days ago
Added orders and items to database schema
Edit · Delete ·

As a user, I want to read customers, so that I can view all the entries into the customer table.

Attach Add a child issue Link issue

Description

Add a description...

Activity

Show: All Comments History Newest first

LP Add a comment...
Pro tip: press M to comment

LP Lewis Pearson 4 days ago
Modified CustomerDAO so that customer_id becomes customers_id
Edit · Delete ·

LP Lewis Pearson 4 days ago
Modified CustomerDAO so that ID becomes customers_id
Edit · Delete ·

Sprint Review

Sprint Review as of the time of this presentation:

Completed Work

- CRUD Functionality for customers, items, and orders with working connectivity through JDBC to a MySQL Database
- Unit testing for a coverage of 74.3% of the src/main/java folder
- Completed Risk Assessment, MoSCoW, ERD documentation
- Project management board including user stories and story points

Sprint Review

Things left behind with limited time remaining:

Achieve a unit testing of comfortably >80%

- -Test more exceptions
- -Test files outside of the main CRUD classes

The unmarked extension task of adding a username and password system

Thorough physical testing of the program to make sure it all works properly

UML diagram

Proper adherence to SOLID and OOP Principles.

Sprint Retrospective

What could have be done better?

- Spend more time on thinking through initial documentation and planning.
- Take more time to fully understand the code before adding to it
- In general, be more careful with implementation to save time in the future fixing silly mistakes
- But this comes with experience.

What went well?

- The project was completed efficiently and to a good standard.
- Competent use of technologies and processes, I had never used 5 weeks ago.

Conclusion

- Overall, a successful project.
 - - Scope adhered to
 - - MVP largely achieved
- Lots learned along the way regarding:
 - Project management and planning
 - How to begin a project of this size
 - How much work a programming project takes
- Valuable experience doing this project and utilising all the technology and tools will put me in good stead for all future projects. Doing a project was important in cementing the new knowledge and working with each technology helped me understand it better.

Conclusion

Future steps:

Work more on testing to try to achieve a higher percentage of coverage.

Finalise all documentation.

Finish build, merge into main and complete the project.

Any Questions?
