

INVENTORY MANAGEMENT SYSTEM

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INTRODUCTION

- During this project I used a variety of software programs, including Java, MySQL, and Git.
- I'll go over and discuss my first ever project in the next 15 minutes!
- I enjoyed working on this project because I had no prior experience with Java, MySQL, or Git, and it gave me the chance to challenge myself, develop new skills, and work in a professional setting whilst doing something I enjoy.
- Despite the fact that it was difficult at times, I am confident in saying that my skills have significantly improved.
- Furthermore, I am familiar with the principles used, I can see where I went wrong and know what I will do next time.

HOW DID I APPROACH THE PROJECT?

- To begin the project, I went over the specification to see what was expected of me and whether there were any significant constraints or factors to consider.
- I also needed to know when the project would be completed and what tools and technologies we would use to design, integrate, and test it.
- The project was linear in the sense that in order to complete one element, you had to complete another. For example, before I could test my IMS controllers in Junit, I had to first develop them.
- My initial goal was to break down the project into smaller, manageable tasks, which I did on my Jira Scrum Board by creating User Stories.
- At this stage, I could see what I needed to do and when I needed to accomplish it, such as create an ERD, a UML diagram and create the MySQL database schema.

MY DEVELOPER JOURNEY

- During the past 5 weeks I have learnt how to use the following technologies, all of which I have used in this project:
 - Version Control System – Git
 - Source Code Management - GitHub
 - Kanban Board - Jira
 - Database - MySQL Server 5.7+ (local or cloud hosted) Back-end Programming
 - Language - Java
 - Build Tool - Maven
 - Unit Testing - JUnit

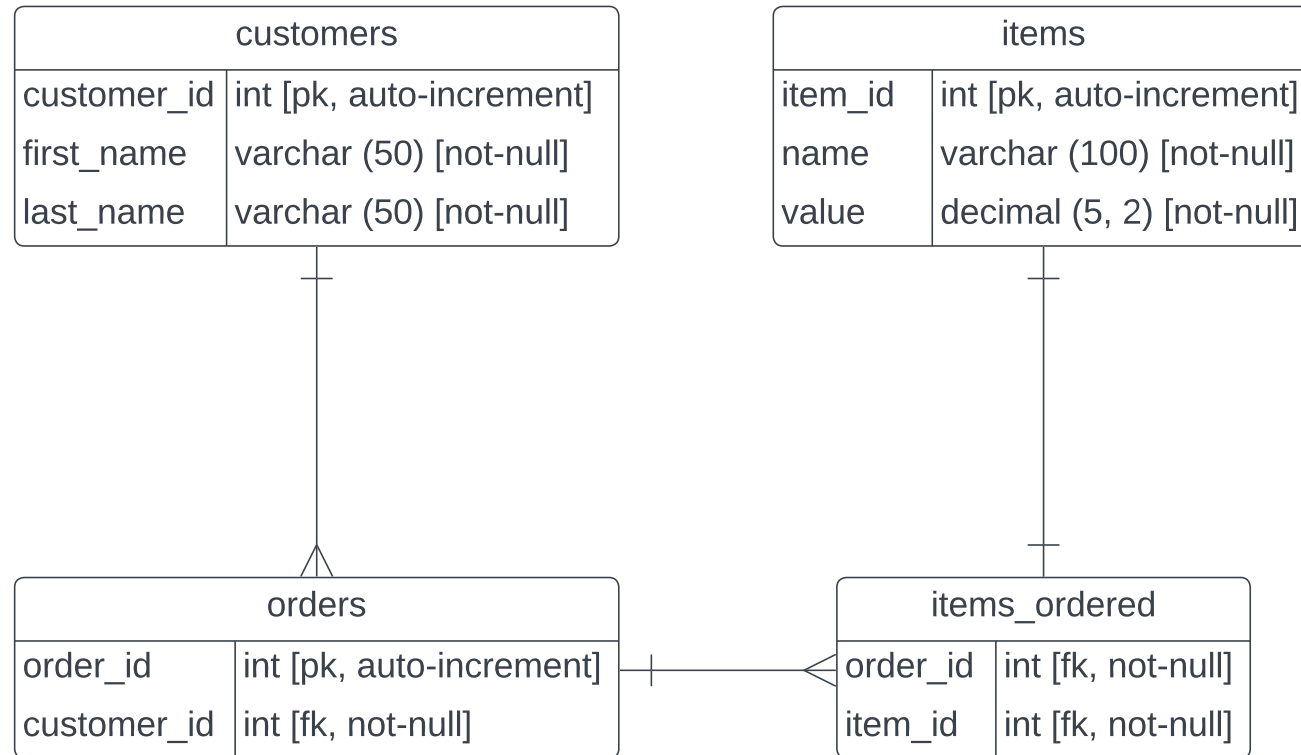
RISK ASSESSMENT

	A	B	C	D	E	F	G	H
1		Risk Matrices						
2			Negligible	Minor	Major	Hazardous	Catastrophic	
3		Very Unlikely	Low	Low	Low medium	Medium	Medium	
4		Unlikely	Low	Low Medium	Low medium	Medium	Medium High	
5		Moderate	Low	Low Medium	Medium	Medium High	Medium High	
6		Likely	Low	Low medium	Medium	Medium high	High	
7		Very Likely	Low medium	Medium	Medium high	High	High	
8								
9								
10								
11		Risk	Statement	Response	Objective	Likelihood	Impact	Risk Level
12		Losing my Work	Loss of work will affect the entire Project and will result in failure	Ensure I continously save my work and ensure it is present.	to keep all work securly saved in multiple places by pushing work regularly to GitHub after completion.	Very Unlikely	Catastrophic	High
13		Injury	Involvement in activity could lead to injury during project and become incapable of finishing project	Ensure i Excercise responsiberly and rest well.	be cautious when excerising to prevent injury and eat a balanced diet to decrease recovery time if injured.	Moderate	Major	Medium
14		Computer Malfunctioning	If Computer malfunctions it will mean I can't use It any more to do the project.	ensure i check my computer health regularly	monitor computer health and reduce the usage of CPU intensive applications.	Very Unlikely	Hazardous	Medium
15		GitHub Servers being down	I would then be unable to access the remote work to enhance development	Ensure my I regularly check github status.	ensure my remote repository is upto date with my github repository at all times.	Very Unlikely	Catastrophic	Medium
16		Mentor is not present	due to illness Or being occupied with others from	help me and do other work and come back to that particular	use resources on Qa Community	Moderate	Minor	Low Medium
17		Bad Internet / No Internet	Loss of internet preventing access to GitHub And not being able to reach my cohort on Teams	Ensure i have a strong internet Provider.	ensure that the wifi is strong and use my phone hotspot if internet goes down.	Unlikely	Hazardous	Medium
18		Procastination	Procrastination will result in project not being completed and delays in completing tasks.	Minimise distractions and do the hard tasks first.	Read articles on how to overcome procrastination.	Unlikely	Hazardous	Medium
19		Anxiety	Anxiety will cause me to overthink project and become incapable of completing project to the best of my ability.	Split the tasks into smaller, more manageable objectives so that I don't become overwhelmed, and I can see what needs to be done. Take regular breaks.	Ensure that I only focus on the tasks at hand , so that I am not overwhelmed by the scope of the project.	Likely	Hazardous	Medium high
20								

MOSCOW

MUST HAVE	SHOULD HAVE	COULD HAVE	WOULD HAVE
Code fully integrated into a Version Control System	Unit tests for validation of the application. You should aim to reach the industry standard of 80% test coverage.	All Crud Functionality Tests to greater than 80%.	Add extra functionality not specified in project requirements.
A risk assessment which outlines the issues and risks faced during the project timeframe.	Adherence to best practice (e.g., OOP principles, SOLID, refactoring)		
A relational database used to persist data for the project, containing the customers, products, orders, and orders_items tables. Relationships should be modelled using an ERD.	A fat .jar which can be deployed from the command-line		
A project management board with full expansion on user stories, acceptance criteria and tasks needed to complete the project.			

ENTITY RELATIONSHIP DIAGRAM



REVIEW OF SPRINT

- • For all entities, I was able to complete CRUD functionality.
- • I was able to establish a MySQL database and populate it with relevant data types and keys.
- • I was also able to test some my code to ensure that it was covered and to find any faults or problems.
- • I was able to commit code to their separate branches before merging them and pulling the work into a repository where it could be labelled.
- • I was able to create an ERD to aid in the visualization of the database.
- • I was able to use a Matrix to create a Risk Assessment.
- I was unable to achieve 80% test coverage.

USER STORIES

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Inventory Managem...
Software project

PLANNING

- Roadmap
- Board**

DEVELOPMENT

- Code
- Project pages
- Add shortcut
- Project settings

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Projects / Inventory Management System

IMS board

NA [User Icon] Epic ▾

TO DO 6 ISSUES	IN PROGRESS 5 ISSUES	DONE 3 ISSUES ✓
<p>As a user, I need to view all items in the systems, so that I know what we have</p> <p>ITEM</p> <p>IMS-10</p>	<p>As a user, I want to add a customer to the system so that I know where to find them.</p> <p>CUSTOMER</p> <p>IMS-5</p>	<p>As a user, I want to update a customer in the system so that I can easily add information to the customer.</p> <p>CUSTOMER</p> <p>IMS-7</p>
<p>As a user, I need to delete items so that I can remove items that are no longer in the system</p> <p>ITEM</p> <p>IMS-12</p>	<p>As a user, I want to view all customers in the system so that I can see them.</p> <p>CUSTOMER</p> <p>IMS-6</p>	<p>As a user, I want to delete a customer in the system, so that I can easily remove information I no longer need.</p> <p>CUSTOMER</p> <p>IMS-8</p>
<p>As a user, I need to create an order in the system so that I can see orders.</p> <p>ORDER</p> <p>IMS-16</p>	<p>As a user, I need to add an item to the system, so that I can see the item</p> <p>ITEM</p> <p>IMS-9</p>	<p>As a user, I need to calculate a cost for an order so that I know how much an order costs.</p> <p>ORDER</p> <p>IMS-20</p>
<p>As a user, I need to view all orders in the system, so that I can see it.</p>	<p>As a user, I need to update an item in the system, so that I can add information.</p>	

VERSION CONTROL

- Version Control: Git
- Utilising the Feature Branch Model.
- Main -> Dev -> Feature
- Coding and commits were carried out on the Feature branches.
- When work was to an acceptable standard, it would then be merged into the Dev branch before finally pulling it into the Main branch when all work was complete and project specification was met.

CRUD

- CREATE, READ, UPDATE and DELETE functionality created for customer, items and orders.
- I was able to fulfil my user stories.

CONCLUSION

- The class construction went quite nicely.
- Too much knowledge was compressed into a short period of time, leaving me with insufficient time to completely comprehend key concepts.
- More time, in my opinion, was required to adequately fulfil all of the requirements.
- Learned how to use a wide range of different technologies.
- In the future, when I am more confident in my abilities, I will add more robust and vigorous tests to my project.