QA - Project Feb 2022

Inventory Management System

Asad Bajwa

Specifications of Project

The goal and main objective of this project is to create an Inventory Management System (IMS) that a user can interact with via a Command Line Interface (CLI)

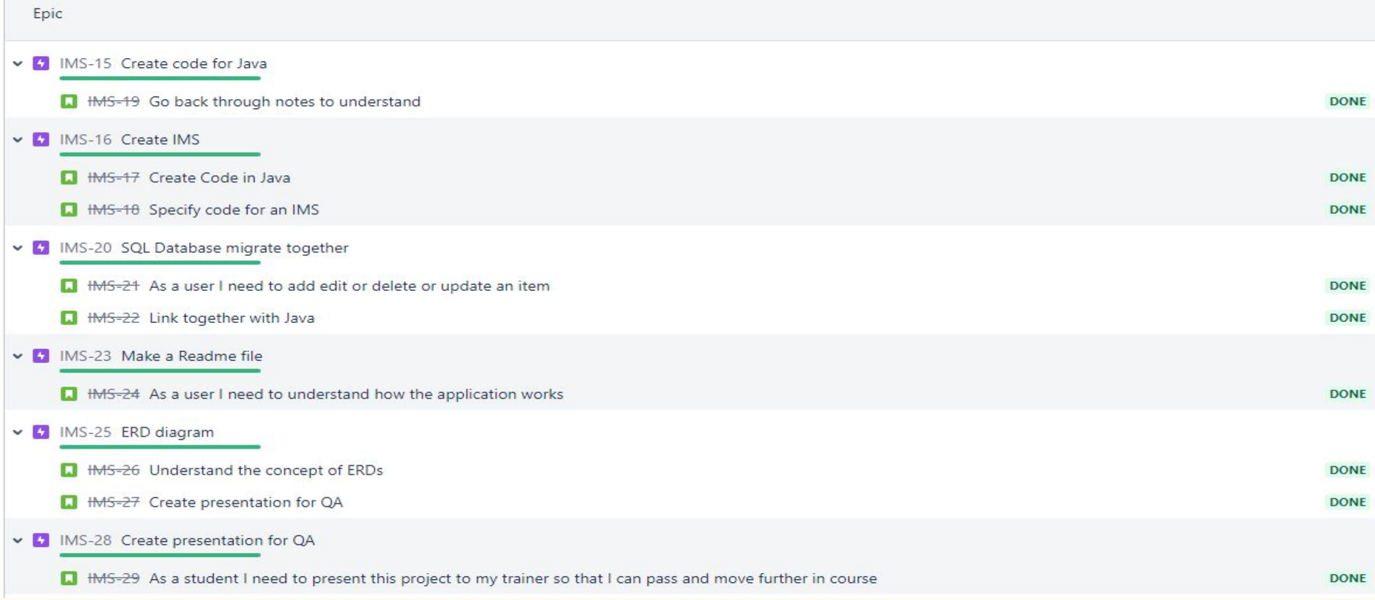
The project will aim to achieve this by carrying out the following:

- Adding a Customer, Item and Order to the system
- Viewing all Customers, Items and Orders on the system
- Update Items, Customers and Orders on the system

Meeting Standards and Requirements

- User stories were created along with with tasks to carry out these scenarios using Jira
- Relational database on MySQL must be created for Customers, Items and Orders
- Unit testing was to be and should have been conducted *
- Risk assessment to gain an overall scope of what issues could occur and how best to overcome them
- Using GitHub as Version Control System

* = testing made me cry ;(

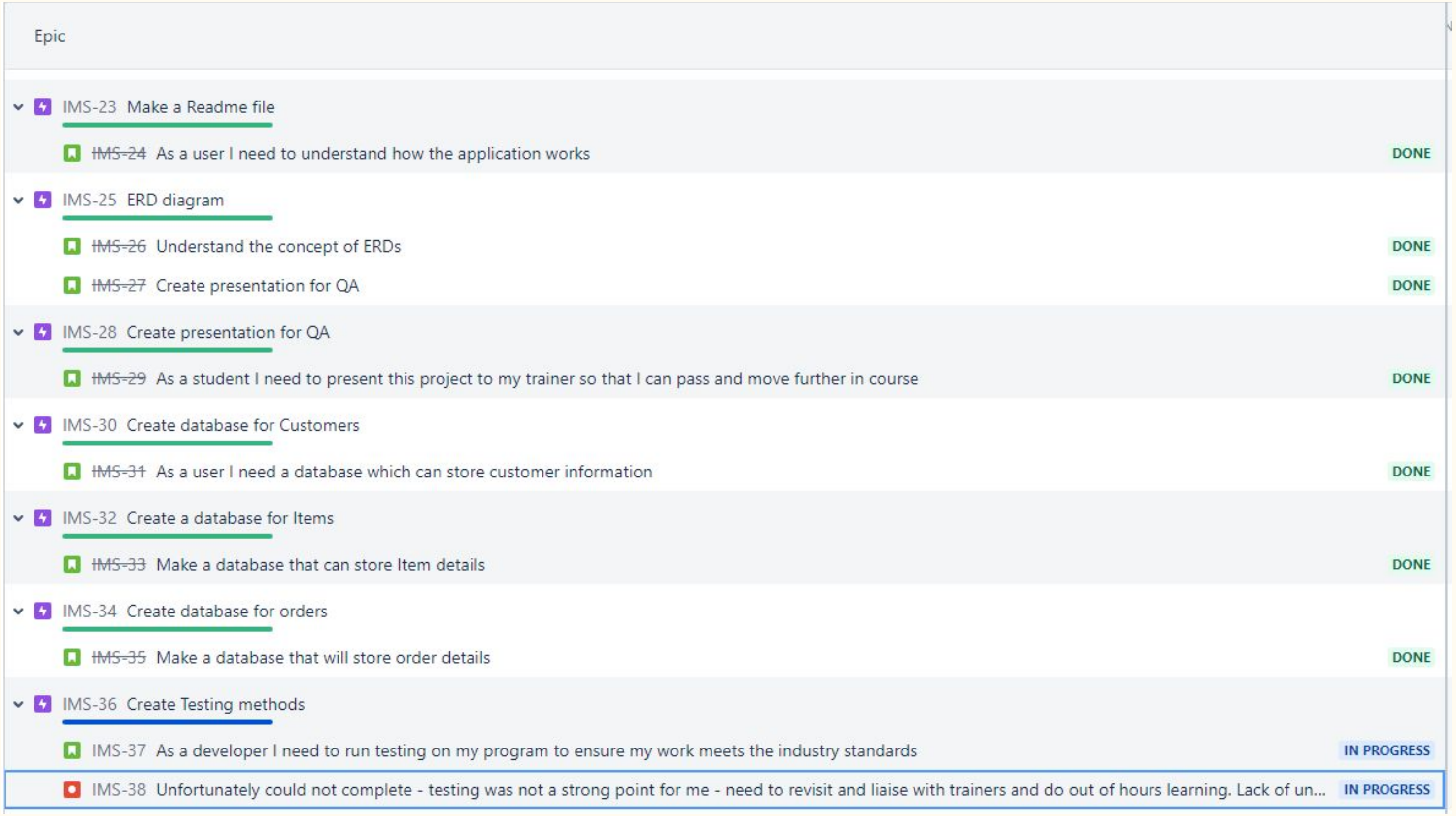


Epic

- IMS-15 Create code for Java
  - ~~IMS-19~~ Go back through notes to understand DONE
- IMS-16 Create IMS
  - ~~IMS-17~~ Create Code in Java DONE
  - ~~IMS-18~~ Specify code for an IMS DONE
- IMS-20 SQL Database migrate together
  - ~~IMS-21~~ As a user I need to add edit or delete or update an item DONE
  - ~~IMS-22~~ Link together with Java DONE
- IMS-23 Make a Readme file
  - ~~IMS-24~~ As a user I need to understand how the application works DONE
- IMS-25 ERD diagram
  - ~~IMS-26~~ Understand the concept of ERDs DONE
  - ~~IMS-27~~ Create presentation for QA DONE
- IMS-28 Create presentation for QA
  - ~~IMS-29~~ As a student I need to present this project to my trainer so that I can pass and move further in course DONE

JIRA Planning

Jira was used for planning - A total of 9 epics were used



Epic

IMS-23 Make a Readme file

~~IMS-24~~ As a user I need to understand how the application works DONE

IMS-25 ERD diagram

~~IMS-26~~ Understand the concept of ERDs DONE

~~IMS-27~~ Create presentation for QA DONE

IMS-28 Create presentation for QA

~~IMS-29~~ As a student I need to present this project to my trainer so that I can pass and move further in course DONE

IMS-30 Create database for Customers

~~IMS-31~~ As a user I need a database which can store customer information DONE

IMS-32 Create a database for Items

~~IMS-33~~ Make a database that can store Item details DONE

IMS-34 Create database for orders

~~IMS-35~~ Make a database that will store order details DONE

IMS-36 Create Testing methods

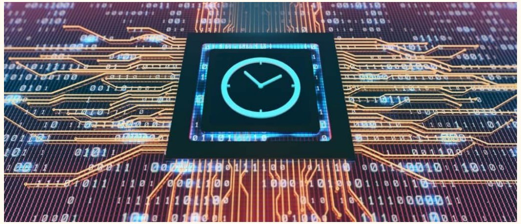
IMS-37 As a developer I need to run testing on my program to ensure my work meets the industry standards IN PROGRESS

IMS-38 Unfortunately could not complete - testing was not a strong point for me - need to revisit and liaise with trainers and do out of hours learning. Lack of un... IN PROGRESS

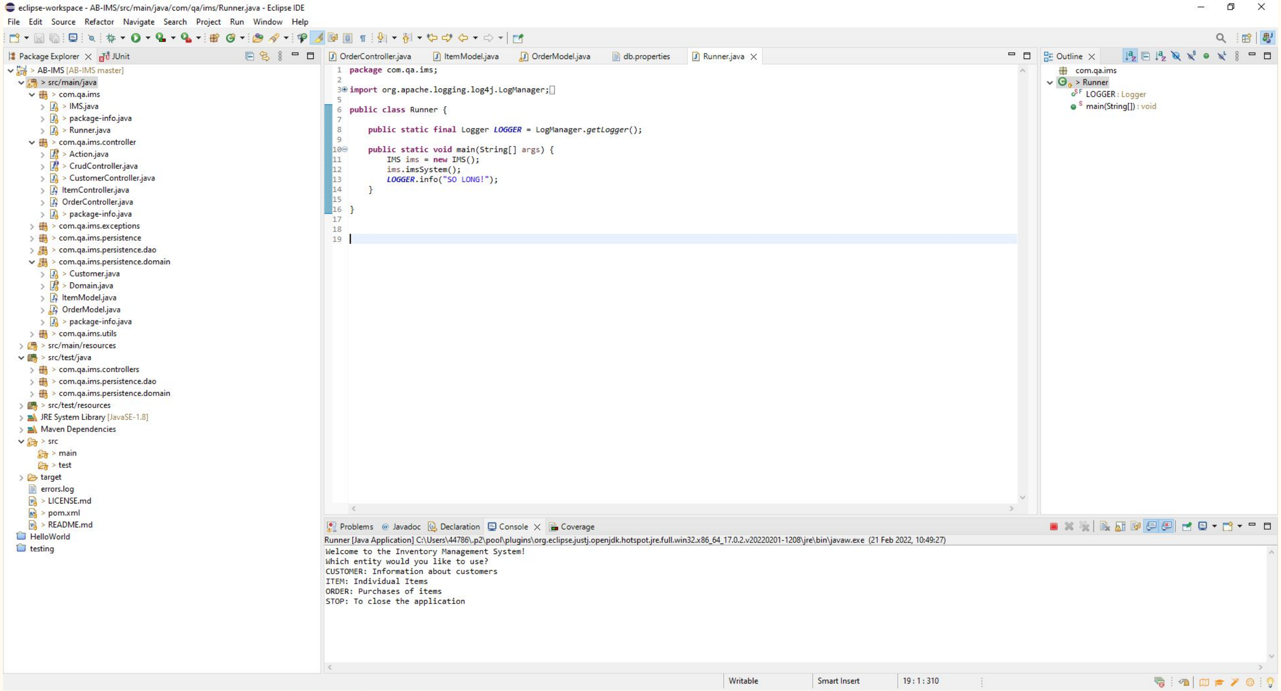
JIRA continued

Bugs were highlighted in Red….of course it was testing….which made me cry…..again.

Demo



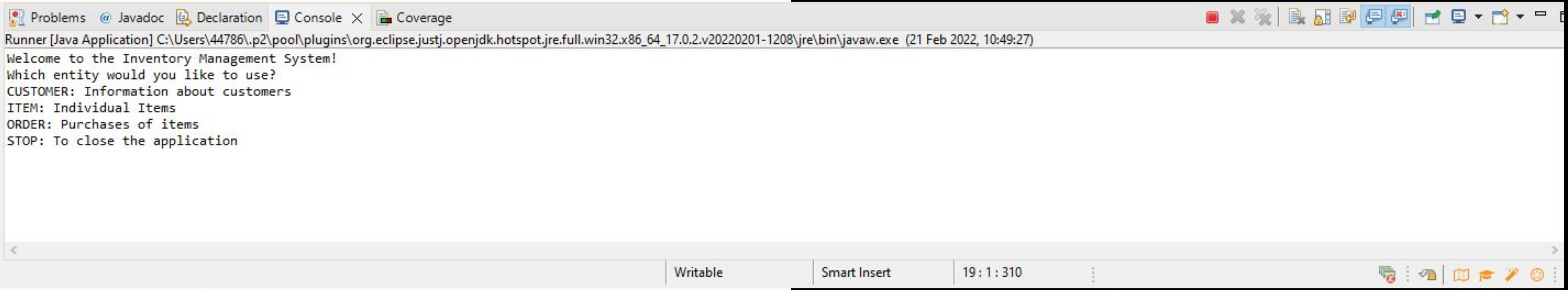
Time



```java
package com.qa.ims;

import org.apache.logging.log4j.LogManager;

public class Runner {

    public static final Logger LOGGER = LogManager.getLogger();

    public static void main(String[] args) {
        IMS ims = new IMS();
        ims.imsSystem();
        LOGGER.info("SO LONG!");
    }

}
```

```
Runner [Java Application] C:\Users\44786\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.2.v20220201-1208\jre\bin\javaw.exe  (21 Feb 2022, 10:49:27)
Welcome to the Inventory Management System!
Which entity would you like to use?
CUSTOMER: Information about customers
ITEM: Individual Items
ORDER: Purchases of items
STOP: To close the application
```

Command Line User Interface



```
Runner [Java Application] C:\Users\44786\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.2.v20220201-1208\jre\bin\javaw.exe  (21 Feb 2022, 10:49:27)
Welcome to the Inventory Management System!
Which entity would you like to use?
CUSTOMER: Information about customers
ITEM: Individual Items
ORDER: Purchases of items
STOP: To close the application
```

Initial message greeting and asking which entity would like to be performed

CLI continued

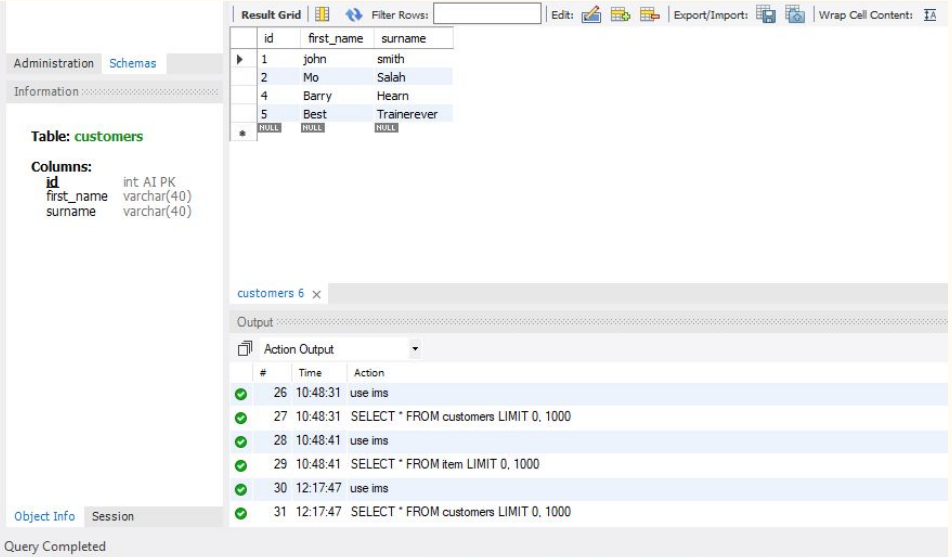


Table: customers

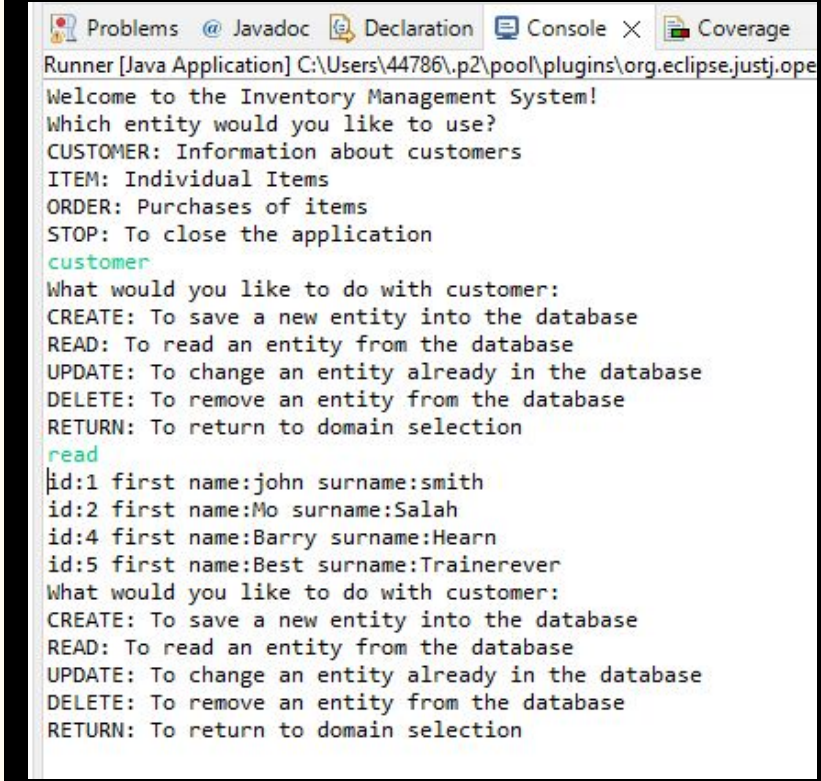
Columns:

id	int AI PK
first_name	varchar(40)
surname	varchar(40)

id	first_name	surname
1	john	smith
2	Mo	Salah
4	Barry	Hearn
5	Best	Trainerever
NULL	NULL	NULL

#	Time	Action
26	10:48:31	use ims
27	10:48:31	SELECT * FROM customers LIMIT 0, 1000
28	10:48:41	use ims
29	10:48:41	SELECT * FROM item LIMIT 0, 1000
30	12:17:47	use ims
31	12:17:47	SELECT * FROM customers LIMIT 0, 1000

Query Completed

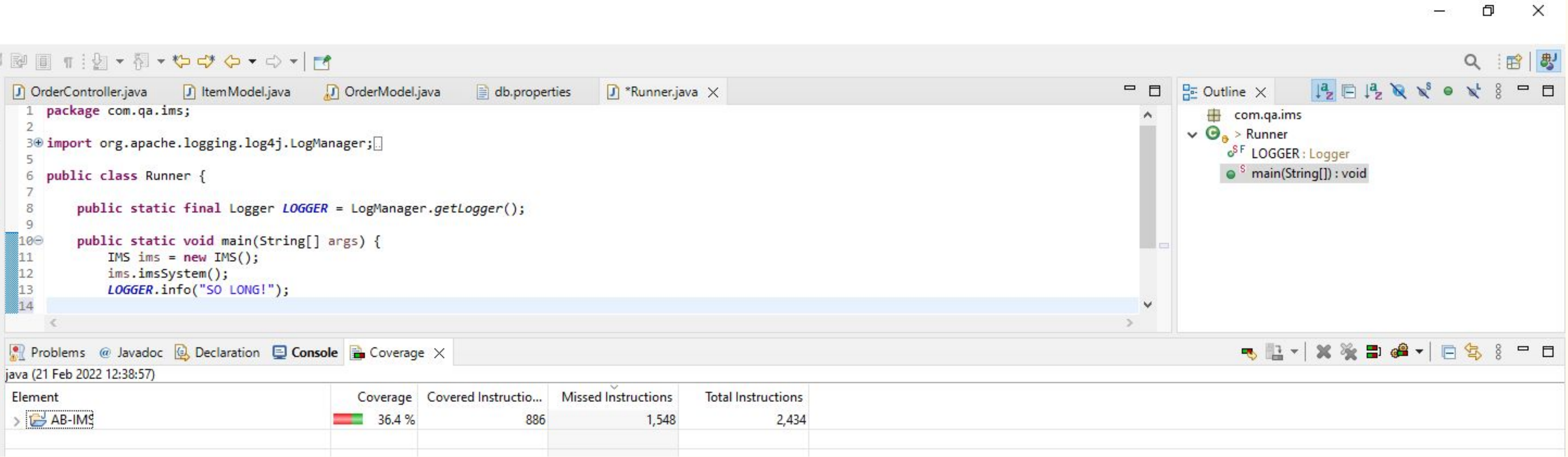


```
Runner [Java Application] C:\Users\44786\.p2\pool\plugins\org.eclipse.justj.ope
Welcome to the Inventory Management System!
Which entity would you like to use?
CUSTOMER: Information about customers
ITEM: Individual Items
ORDER: Purchases of items
STOP: To close the application
customer
What would you like to do with customer:
CREATE: To save a new entity into the database
READ: To read an entity from the database
UPDATE: To change an entity already in the database
DELETE: To remove an entity from the database
RETURN: To return to domain selection
read
id:1 first name:john surname:smith
id:2 first name:Mo surname:Salah
id:4 first name:Barry surname:Hearn
id:5 first name:Best surname:Trainerever
What would you like to do with customer:
CREATE: To save a new entity into the database
READ: To read an entity from the database
UPDATE: To change an entity already in the database
DELETE: To remove an entity from the database
RETURN: To return to domain selection
```

Further examples - and you make a feature too! (id5)

Testing

Total coverage across tests was 36.4%



```
package com.qa.ims;

import org.apache.logging.log4j.LogManager;

public class Runner {

    public static final Logger LOGGER = LogManager.getLogger();

    public static void main(String[] args) {
        IMS ims = new IMS();
        ims.imsSystem();
        LOGGER.info("SO LONG!");

```

java (21 Feb 2022 12:38:57)

Element	Coverage	Covered Instructio...	Missed Instructions	Total Instructions
AB-IMS	36.4 %	886	1,548	2,434

Summary

To summarise, I learnt that each detail must be followed very carefully and every single aspect of the project must be covered thoroughly.
Things that I can improve on are my time management and definitely understanding Testing more, I will be going back through videos out of class time to ensure I get up to speed.

I feel I done well is get to grips with my coding skills, simplify and manage tasks well and hopefully I have presented well to you today.

Thank you for taking the time to listen to my presentation, please feel free to ask any questions.