

#### Introduction

I'm Matthew Garbett a trainee software specialist at QA consulting

My Approach

- Used Jira Kanban Board to create sprints with user stories on each task in the specification
- Focused git branching correctly using the feature method assigning the sprints as these features

### My Consultant Journey

- ♦ Technologies adopted for project
  - ♦ Java Used for the code of the project
  - ♦ Git Used as Version Control to keep the work I have done backed up
  - MySQL Used for the database that goes with the application using MySQL commands
  - ♦ JUNIT & Mockito Used for testing the project
  - ♦ Maven Used for adding dependencies and packaging/compiling the program.

### My Approach to Continuous Integration(CI)

- ♦ Version Control System Git
- Using git bash I used the feature branch model and merged with dev once features had been completed
- Committing changes was important throughout the project
  - Created backups to help ease reverting changes



## IMS Test Coverage

- JUNIT Testing
- Using Mockito to fake functionality on the classes
- The testing allowed for a view of what methods were failing

ItemController itemController = new ItemController(itemServices); List<Item> items = new ArrayList<>(); items.add(new Item("Potato", 12.00)); Mockito.when(itemServices.readAll()).thenReturn(items); assertEquals(items, itemController.readAll()); oublic void createTest() { String itemName = "Tomato"; String price = "12.09"; Mockito.doReturn(itemName, price).when(itemController).getInput(); Item item = new Item(itemName, 12.09); Item savedItem = new Item(1L, "Tomato", 12.09); Mockito.when(itemServices.create(item)).thenReturn(savedItem); assertEquals(savedItem, itemController.create()); ublic void updateTest() { String id = "1": String itemName = "Potato"; String price = "12.22"; Mockito.doReturn(id, itemName, price).when(itemController).getInput(); Item item = new Item(1L, itemName, 12.22); Mockito.when(itemServices.update(item)).thenReturn(item); assertEquals(item, itemController.update());

matt-ims (22 Jan 2021 11:22:37)		
Coverage	Covered Instructions	Missed Instruction
72.9 %	3,518	1,31
54.4 %	1,562	1,30
99.9 %	1,956	
	72.9 % 54.4 %	72.9 % 3,518 54.4 % 1,562

#### **IMS** Demonstration



What would you like to do with customer: CREATE: To save a new item into the database READ: To read an item from the database

RETURN: To return to domain selection

DELETE: To remove an item from the database

UPDATE: To change an item already in the database

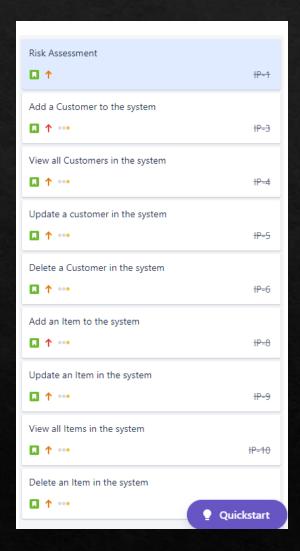
- Create item
- Read item from orders

```
read
                                                                  id:1 first name:matt surname:garbett
Matts@DESKTOP-7MEF8SF MINGW64 ~/Desktop/ims-js-newBase/ims-demo/target (dev)
                                                                                would you like to use?
$ java -jar matt-ims-1.0.0-jar-with-dependencies.jar
                                                                                formation about customers
What is your username
                                                                                dual Items
root
                                                                                ases of items
What is your password
                                                                                se the application
src\main\resources\sql-schema.sql (The system cannot find the path specified)
                                                                                ou like to do with order:
Which entity would you like to use?
CUSTOMER: Information about customers
                                                                                ave a new item into the database
ITEM: Individual Items
                                                                                d an item from the database
ORDER: Purchases of items
                                                                                hange an item already in the database
STOP: To close the application
                                                                                amove an item from the database
                                               Matts@DESKTOP-7MEF8SF MINGW64 ~/Desktop/ims-js-newBase/ims-demo/target (dev)
What would you like to do with item:
                                               $ java -jar matt-ims-1.0.0-jar-with-dependencies.jar
CREATE: To save a new item into the database
READ: To read an item from the database
                                               What is your username
UPDATE: To change an item already in the database
DELETE: To remove an item from the database
                                               What is your password
RETURN: To return to domain selection
create
Please enter the item name
                                               src\main\resources\sql-schema.sql (The system cannot find the path specified)
orange
                                               Which entity would you like to use?
Please enter the price
1.99
                                               CUSTOMER: Information about customers
Item created
                                               ITEM: Individual Items
Which entity would you like to use?
CUSTOMER: Information about customers
                                               ORDER: Purchases of items
ITEM: Individual Items
                                               STOP: To close the application
ORDER: Purchases of items
STOP: To close the application
```

## Sprint review

- Completed Tasks
  - Completed all user stories set on Kanban Board with Risk
     Assessment and Items being done the quickest

- What got left behind?
  - ♦ Full Test Coverage (Dao Testing)
  - Google Cloud Platform



## Sprint Retrospective

- What went well?
  - Creating methods for each story
  - Git branching used for each feature splitting off from dev branch then merging back into it
- What could be improved?
  - ♦ Start Testing earlier
  - Moving from local workbench to GCP
  - Readme file and project documents could have been continually updated



# IMS project conclusions

Putting my learning into practice with new technologies

- Future Improvements
  - Develop logical skills using code to
  - Better project management to leave more time for back-end test coverage
    - For future projects I now understand that the time taken to complete some tasks was underestimated

Questions?

Thank you for your time