# INVENTORY - MANAGEMENT SYSTEM

### \_ HELLO WORLD!

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"The expert at anything was once a beginner"

#### **TECHNOLOGIES**

VERSION CONTROL SYSTEM: GIT

SOURCE CODE MANAGEMENT: GITHUB

PROJECT MANAGEMENT: JIRA

DATABASE MANAGEMENT: MYSQL

BACKEND: JAVA

**BUILD TOOL: MAVEN** 

**UNIT TESTING: JUNIT** 



# - PLANNING



#### PLANNING: RISK ASSESSMENT

**EQUIPMENT ISSUES** 

SOFTWARE COMPATIBILITY ISSUES

JAR FILE COMPILATION WITH DEPENDENCIES

GITHUB: MERGE CONFLICTS

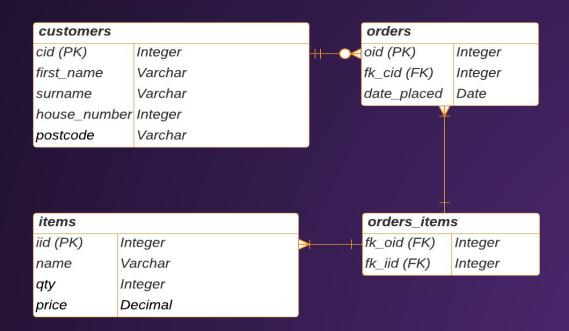
INSUFFICIENT UNDERSTANDING OF STARTER

CODE

PUNCTUALITY TO DEADLINE



#### PLANNING: ENTITY RELATIONSHIP DIAGRAM



#### PLANNING: SQL SCHEMA

```
drop schema ims;
CREATE SCHEMA IF NOT EXISTS 'ims';
USE `ims`;
CREATE TABLE IF NOT EXISTS 'ims'.'customers' (
         `cid` INT(11) NOT NULL AUTO INCREMENT,
        `first name` VARCHAR(40) DEFAULT NULL,
         `surname` VARCHAR(40) DEFAULT NULL,
         `house number` INT(10) NOT NULL,
         `postcode` VARCHAR(10) NOT NULL,
         PRIMARY KEY ('cid')
CREATE TABLE IF NOT EXISTS 'ims'.'items' (
         `iid` INT(10) NOT NULL AUTO INCREMENT,
         `name` VARCHAR(20) NOT NULL,
         `price` DEC(5,2) NOT NULL,
         PRIMARY KEY (`iid`)
        );
CREATE TABLE IF NOT EXISTS 'ims'. 'orders' (
         'oid' INT(10) NOT NULL AUTO INCREMENT,
        `fk cid` INT(10) NOT NULL,
         `order value` DOUBLE,
         PRIMARY KEY ('oid'),
         FOREIGN KEY (`fk cid`) references customers(`cid`) ON UPDATE CASCADE ON DELETE CASCADE
CREATE TABLE IF NOT EXISTS 'ims'.'orders items' (
         `fk oid` INT(10) NOT NULL,
         `fk iid` INT(10) NOT NULL,
         FOREIGN KEY ('fk oid') references orders('oid') ON UPDATE CASCADE ON DELETE CASCADE,
         FOREIGN KEY ('fk iid') references items('iid') ON UPDATE CASCADE ON DELETE CASCADE
         );
```

#### **PLANNING: JIRA SCRUM BOARD USER STORIES**

"As a ...,

I want to ...

So that I can ...

Projects / IMS Project / IMS Backlog Recently Updated Only My Issues IMS Project 21 issues 22/Jan/21 10:25 AM • 29/Jan/21 10:25 AM As a client, I want to be able to have a database for my inventory in ord HMS-8 1 As a client, I want to be able to have a designated table for customers i HMS-9 1 As a client, I want to have a designated table for items in order to recount HMS-11 1 2 As a client, I want to have a designated table for orders in order to ke IMS-10 1 As a client, I want to be able to add new items so that I can save its de IMS-17 1 As a client, I want to be able to add a customer to the system so that IMS-12 1 As a client, I want to view all the customers in a lits to see who are in the IMS-7 1 As a client, I want to be able to change details of existing customer re IMS-14 1 As a client, I want to be able to remove a customer record so that I ca IMS-15 1 As a client. I want to view all items in a list so I can see what items we IMS-16 1 As a client, I want to be able to delete items from the system so that t IMS-19 1 As a client, I want to add/make orders so that I can make a record of : IMS-21 1 4 As a client, I want to be able to update details of an item record to ch IMS-18 As a client, I want to be able to delete order records so that I can rem IMS-23 As a client, I want to view all orders in a list so I can see all orders mac IMS-20 1 As a client, I want to update order details so that I can change it accor IMS-22 1

EPICS

# - DEMONSTRATION

USER STORIES IN <a href="https://gaacademydemo.atlassian.net/jira/software/c/projects/IMS/boards/2/roadmap">https://gaacademydemo.atlassian.net/jira/software/c/projects/IMS/boards/2/roadmap</a>

#### APPROACH TO CREATING CRUD METHODS

FOR EACH FUNCTIONALITY:

DATA ACCESS OBJECT

CONTROLLER

RUN

IMPLEMENT IDOMAINDAO AND ADD UNIMPLEMENTED METHODS

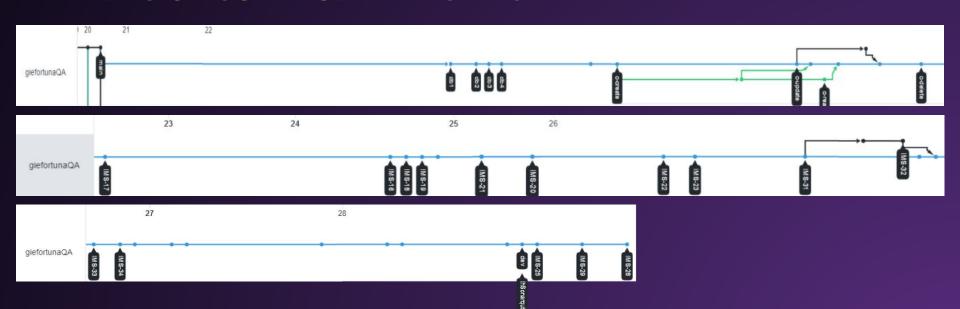
IMPLEMENT
ICRUDCONTROLLER AND CALL
METHODS FROM DAO CLASS

CREATE PROMPTS TO BE DISPLAYED IN CONSOLE

'TRY' THE CODE BY RUNNING
THE METHOD AND CHECKING
FUNCTIONALITY

#### https://github.com/giefortunaQA/20DecSDET2-IMS-Starter/network

#### - VERSION CONTROL WITH GITHUB



STARTED TO USE BRANCH NAMES LIKE 'DB1', 'DB2', 'C-CREATE', 'C-READ', ...

**USED SMART COMMITS FROM IMS-17** 

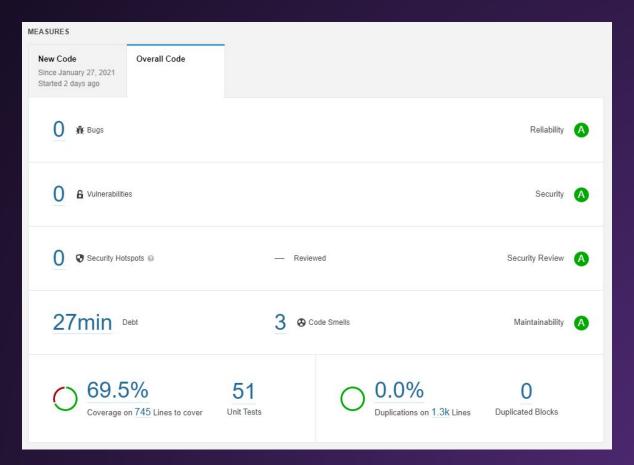
#### — VERSION CONTROL WITH GITHUB



TESTING WITH JUNIT control 0

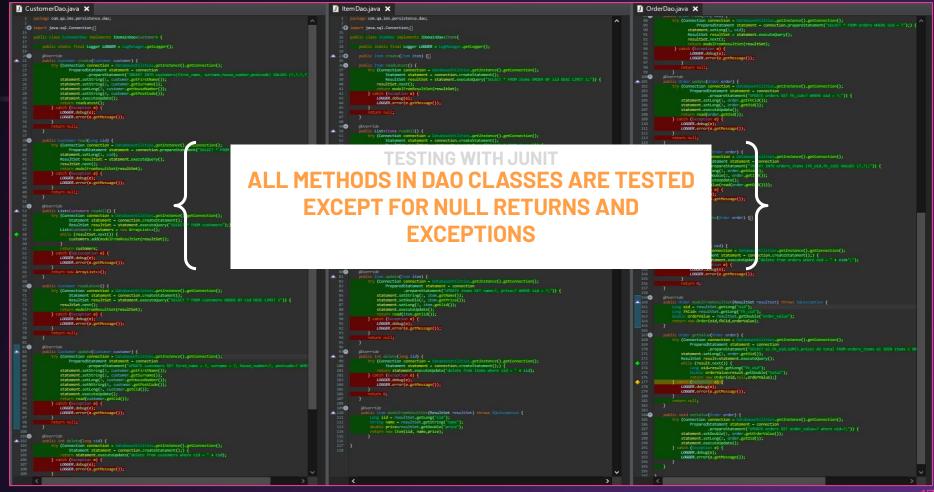
# TESTING WITH JUNIT WORKING COVERAGE (in Eclipse)

© Coverage X 20DecSDET2-IMS-Starter (29 Jan 2021 13:00:22)				
→   ☐ com.qa.ims.cli	0.0 %	0	365	365
> 🗾 IMSEntryPoint.java	0.0 %	0	141	141
> 🗾 ActionMenu.java	0.0 %	0	119	119
> 🗾 DomainMenu.java	0.0 %	0	105	105
	77.2 %	751	222	973
> 🗾 OrderDao.java	78,9 %	367	98	465
> 🗾 CustomerDao.java	76.9 %	206	62	268
> 🗾 ItemDao.java	74.2 %	178	62	240
	78.6 %	418	114	532
> 🚺 OrderController.java	58.5 %	161	114	275
> 🗾 CustomerController.java	<b>=</b> 100.0 %	141	0	141
> 🗾 ItemController.java	100.0 %	116	0	116
> # com.qa.ims.utils	64.6 %	155	85	240
> # com.qa.ims	0.0 %	0	19	19
🗸 🎛 com.qa.ims.persistence.domain	98.2 %	667	12	679
> 🗾 Order.java	94.8 %	217	12	229
> 🗾 Customer.java	100,0 %	272	0	272
> 🗾 Item.java	100.0 %	178	0	178
> # com.qa.ims.controller	100.0 %	761	0	761
> # com.qa.ims.persistence.dao	100.0 %	546	0	546
> 🎛 com.qa.ims.persistence.domain	100.0 %	340	0	340



#### - WORKING COVERAGE (in Sonarqube)

TESTING WITH JUNIT



# SPRINT REVIEW BURNDOWN CHART



# ROOM FOR IMPROVEMENT

**SPRINT RETROSPECTIVE** 



# NOTABLE ACHIEVEMENTS SPRINT RETROSPECTIVE



Jira sprint was successful with no issues left to do.



Sonarqube code smells were minimised

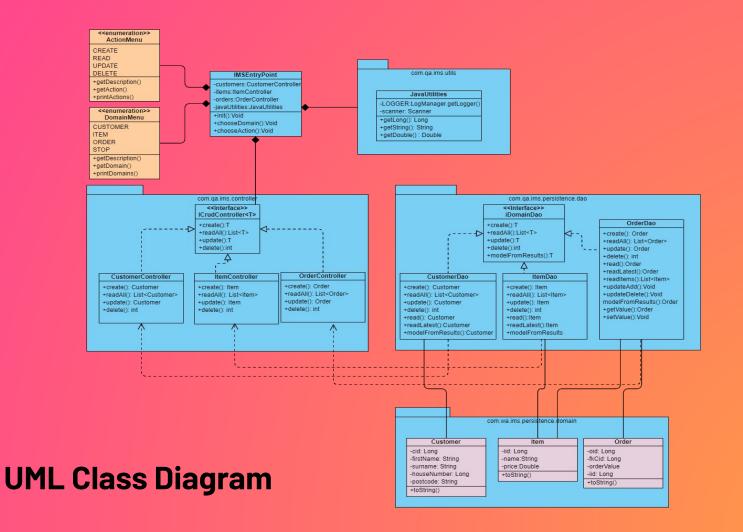


Tested ALL methods in DAO classes

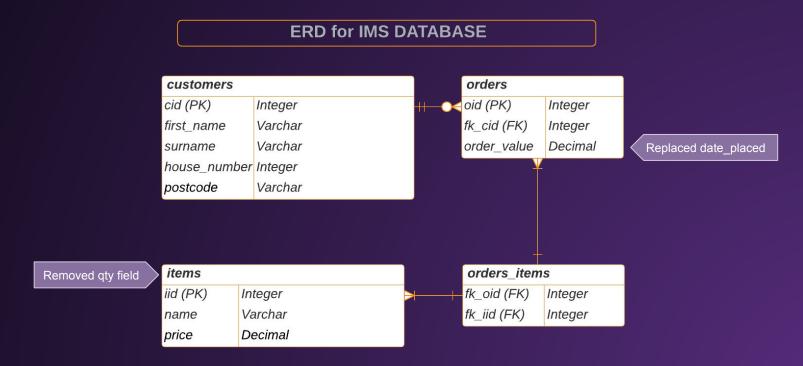


Able to add extra features that work





### SPRINT RETROSPECTIVE Final ERD



# - CONCLUSION

This project was the perfect challenge at this stage of training.

Most tools and knowledge needed were taught in the first four weeks of training.

With more experience in Java, there are a lot more that can be improved:

- More testing with Mockito
- Custom exceptions
- Added functionalities

# THANK YOU FOR LISTENING!

Any questions?