INVENTORY - MANAGEMENT SYSTEM

HELLO WORLD!

I AM GIE.



"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

GITHUB: MERGE CONFLICTS

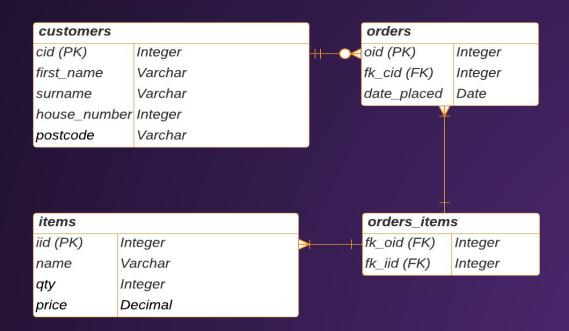
INSUFFICIENT UNDERSTANDING OF STARTER

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
         );
```

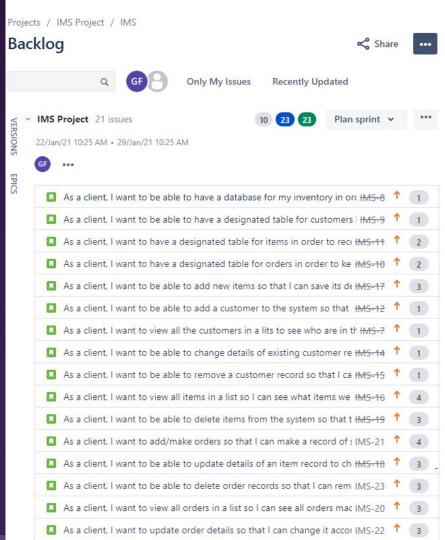
PLANNING: JIRA SCRUM BOARD

USER STORIES

"As a client,

I want to ...

So that I can ... '



- DEMONSTRATION

USER STORIES IN https://gaacademydemo.atlassian.net/secure/RapidBoard.jspa?rapidView=2&projectKey=IMS

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

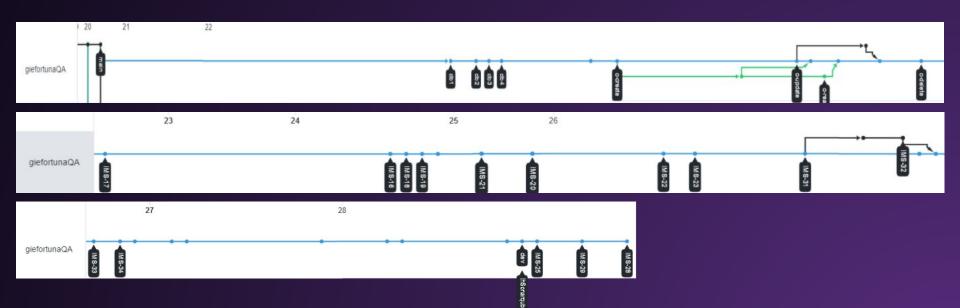
'TRY' THE CODE BY RUNNING
THE METHOD AND CHECKING
FUNCTIONALITY

GITHUB: FEATURE-BRANCH MODEL

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

USED SMART COMMITS FROM IMS-17

- VERSION CONTROL WITH GITHUB



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USED SMART COMMITS FROM IMS-17

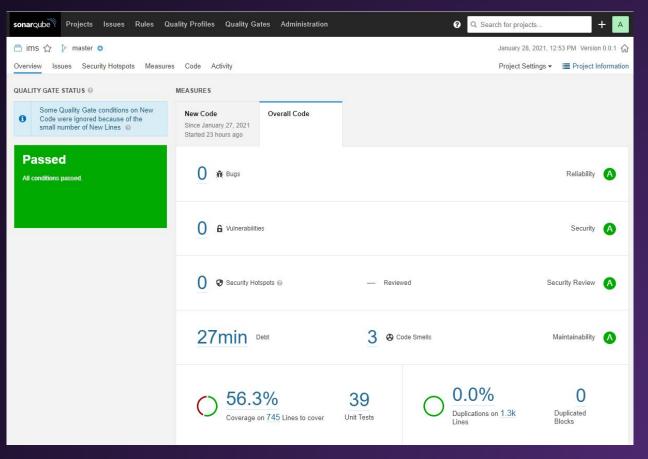
- VERSION CONTROL WITH GITHUB



TESTING WITH JUNIT control 0

TESTING WITH JUNIT WORKING COVERAGE (in Eclipse)

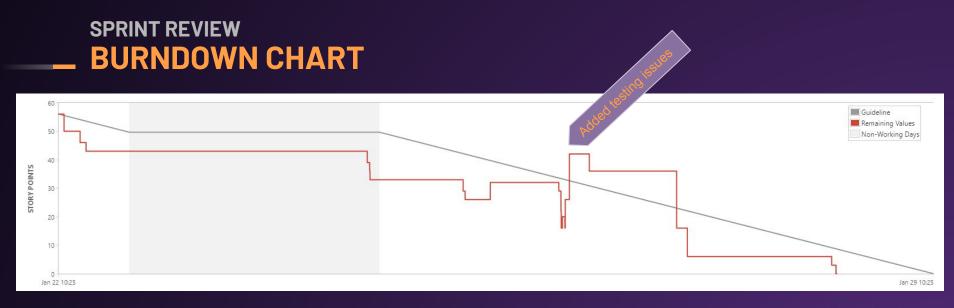
Ē Coverage X		🤏 🖺 🔻 🗙			
20DecSDET2-IMS-Starter (28 Jan 2021 10:35:36)					
Element	Coverage	Covered Instructions	Missed Instructions	Total Instructions	
	0.0 %	0	532	532	
> 🗾 OrderController.java	0.0 %	0	275	275	
> 🗾 CustomerController.java	0.0 %	0	141	141	
> 🗾 ItemController.java	0.0 %	0	116	116	
🗸 🎛 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	
	77.5 %	763	222	985	
> 🗾 OrderDao.java	79.0 %	368	98	466	
> 🗾 CustomerDao.java	77.9 %	218	62	280	
> 🗾 ItemDao.java	74.1 %	177	62	239	
	63.3 %	152	88	240	
> J JavaUtilities.java	0.0 %	0	62	62	
> 🗾 DatabaseUtilities.java	85.4 %	152	26	178	



- WORKING COVERAGE (in Sonarqube)

TESTING WITH JUNIT

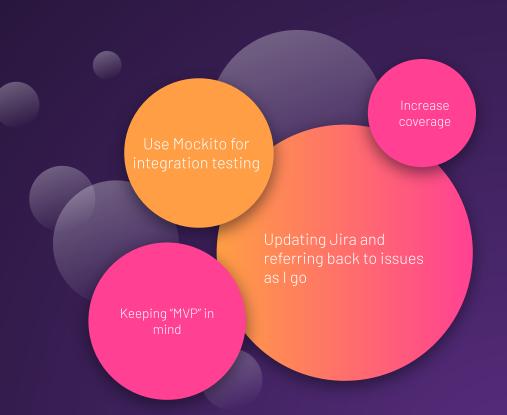




ALL ISSUES DONE!

ROOM FOR IMPROVEMENT

SPRINT RETROSPECTIVE



PROUD MOMENTS SPRINT RETROSPECTIVE



Jira sprint was successful with no issues left to do.



Sonarqube code smells were minimised



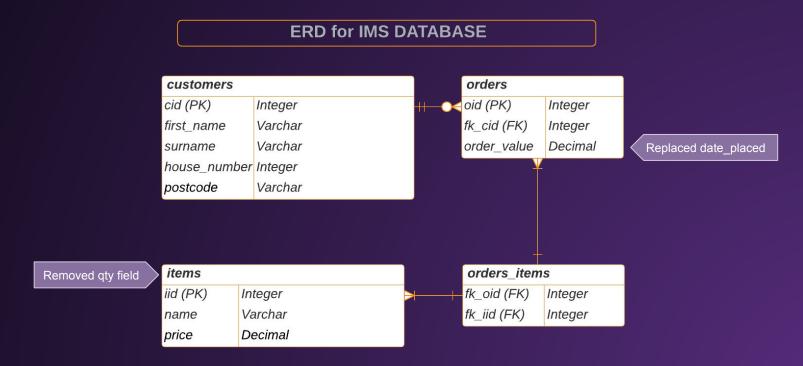
Tested ALL methods in DAO classes



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:

- Testing with Mockito
- Custom exceptions
- Added functionalities

THANK YOU FOR LISTENING!

Any questions?