

WINTER FLINTERNS
JEDI GROUP - B

Our Team





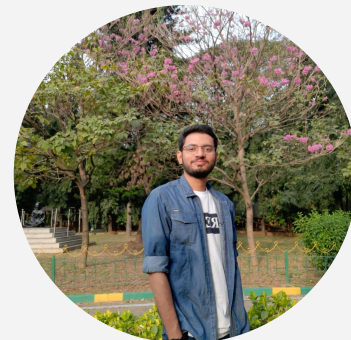
Parth



Manthan



Yashank



Utsav



Apoorv



Divyesh



Yashi



Kushal

Stakeholders

1. Sponsors
 - Flipkart
2. SME's
 - Amit Balyan
3. Trainer & Co-ordinators
 - Amit Balyan
 - Sharath Ramesha
 - Heena Bansal



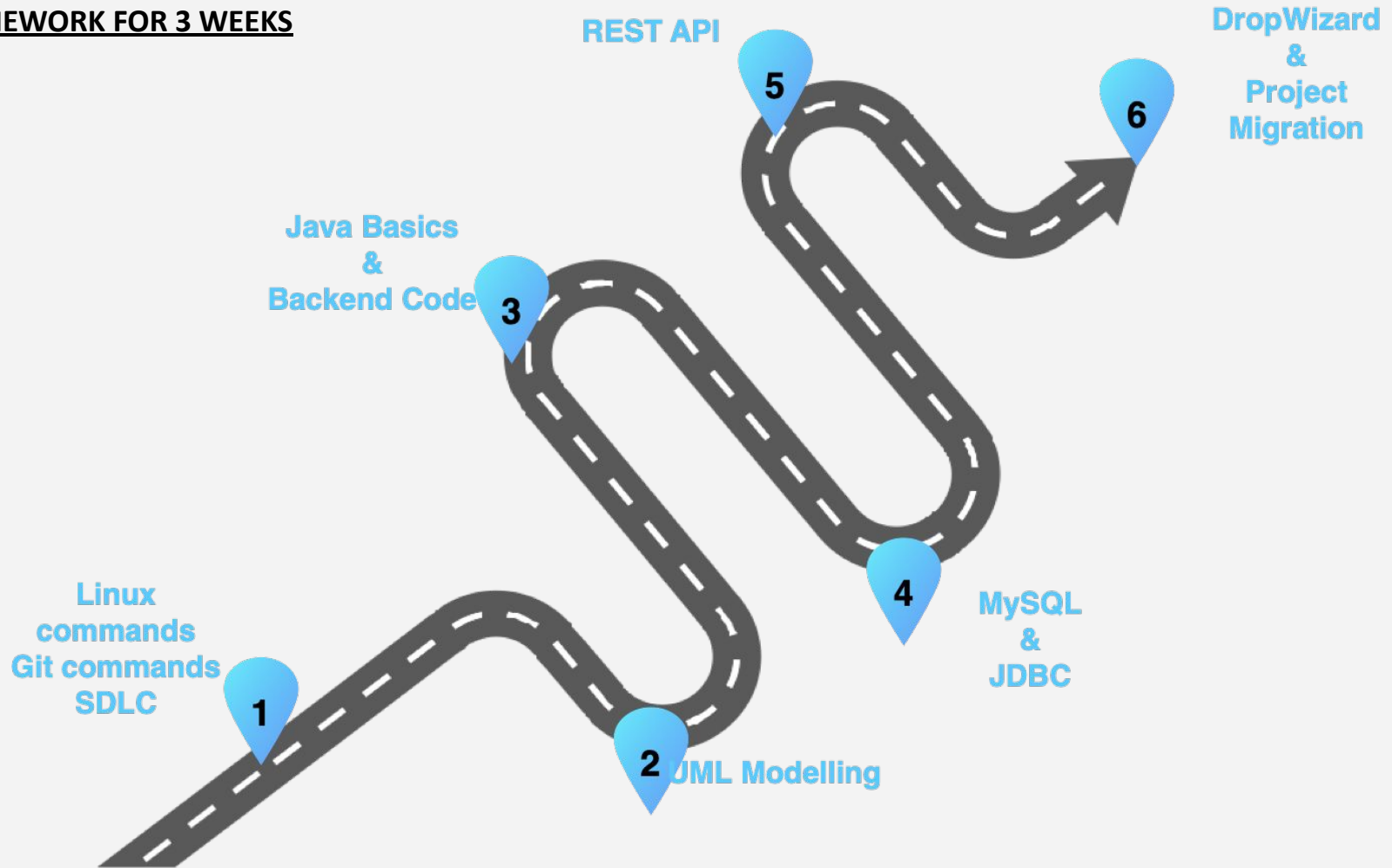
Agenda

- 01 Framework for 3 weeks
- 02 Our Journey
- 03 Project Goals
- 04 Understanding SDLC
- 05 UML Artifacts Design
- 06 Tech Stack
- 07 Architecture and Development
- 08 Challenges & Learnings
- 09 Demo
- 10 Questions



The Ask – Where we started?

FRAMEWORK FOR 3 WEEKS



FRAMEWORK FOR 3 WEEKS

	Modules	Description
Week 1	<ul style="list-style-type: none">• UNIX• GIT• Use Case & UML Diagrams	<ul style="list-style-type: none">• Understanding Unix and Git commands• Requirement understanding & diagram design• Activity Diagram, Use Case Diagram, Sequence Diagram, Class Diagram
Week 2	<ul style="list-style-type: none">• JAVA• Exception Handling• SQL	<ul style="list-style-type: none">• Developing a POS application using Java & MySQL• Understanding Java 8 features and collections
Week 3	<ul style="list-style-type: none">• Jersey & DropWizard	<ul style="list-style-type: none">• Expanding the POS application to REST-API's using DropWizard and Jersey

2 WEEKS OF TRAINING + PROJECT DEMO



Project Goals



Problem Statement

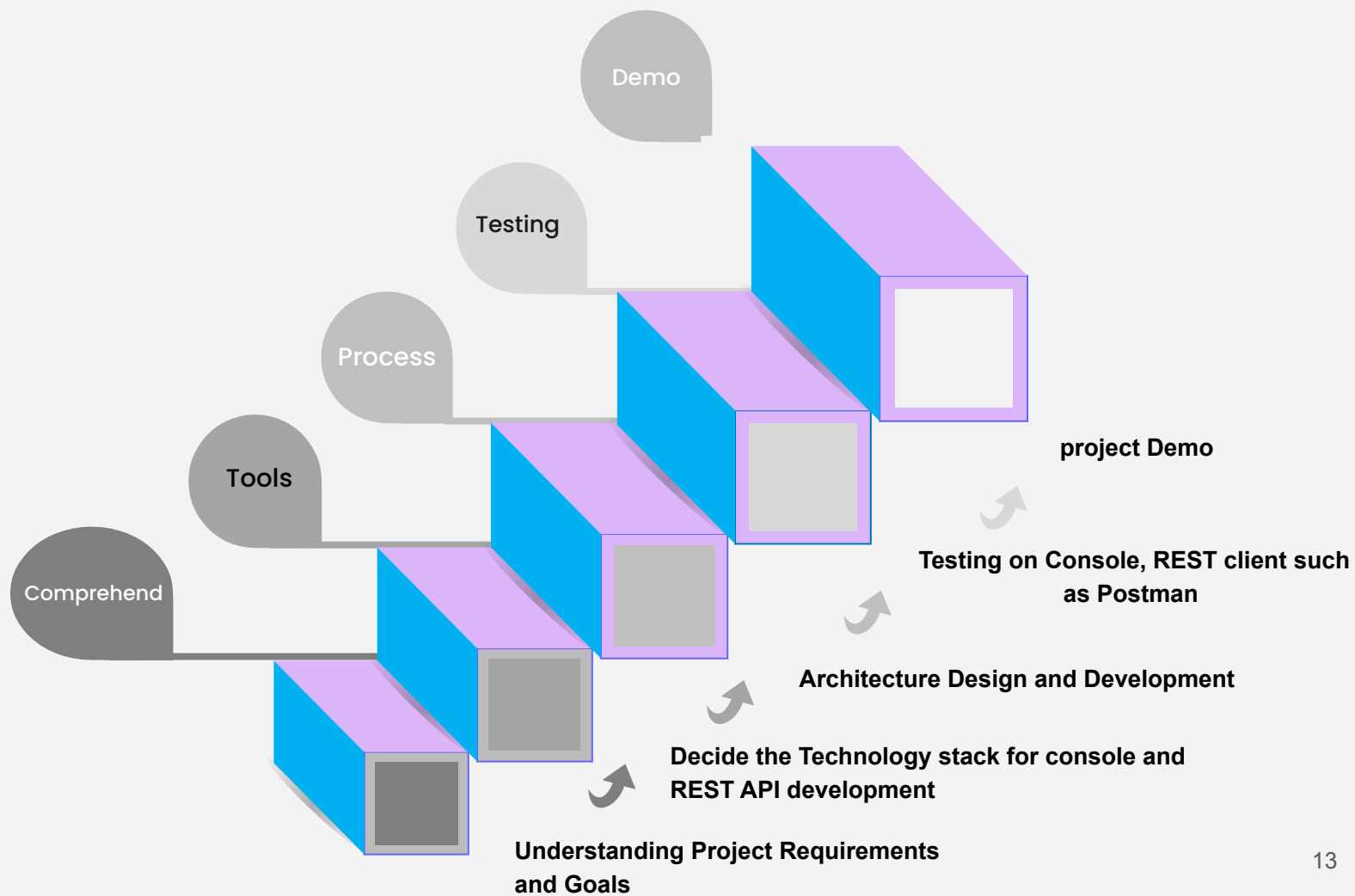
To develop a POS application and REST API for **Course Registration System** using JAVA where :

- student can self-register, view catalogue, add & drop primary and secondary course, register, pay fee, view grade sheet
- professors can view courses, select courses to teach, view enrolled students, assign grades to students
- admin can add admin/professor, approve student registration, generate grade sheet, add/drop courses to catalogue.



Our Journey



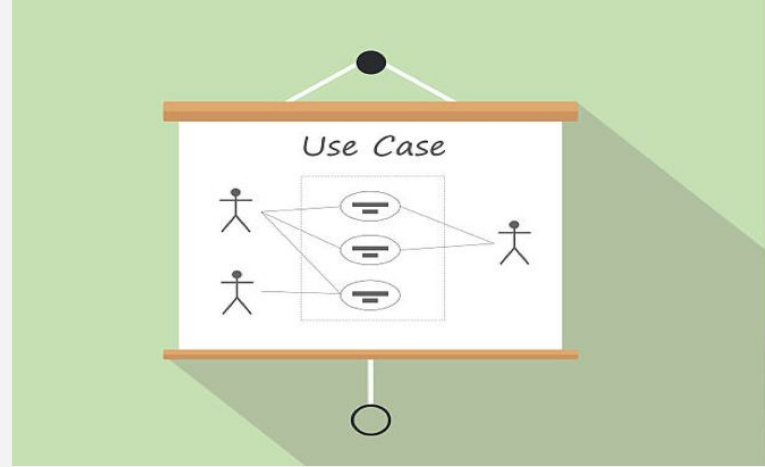


6 Stages of Software Development Process

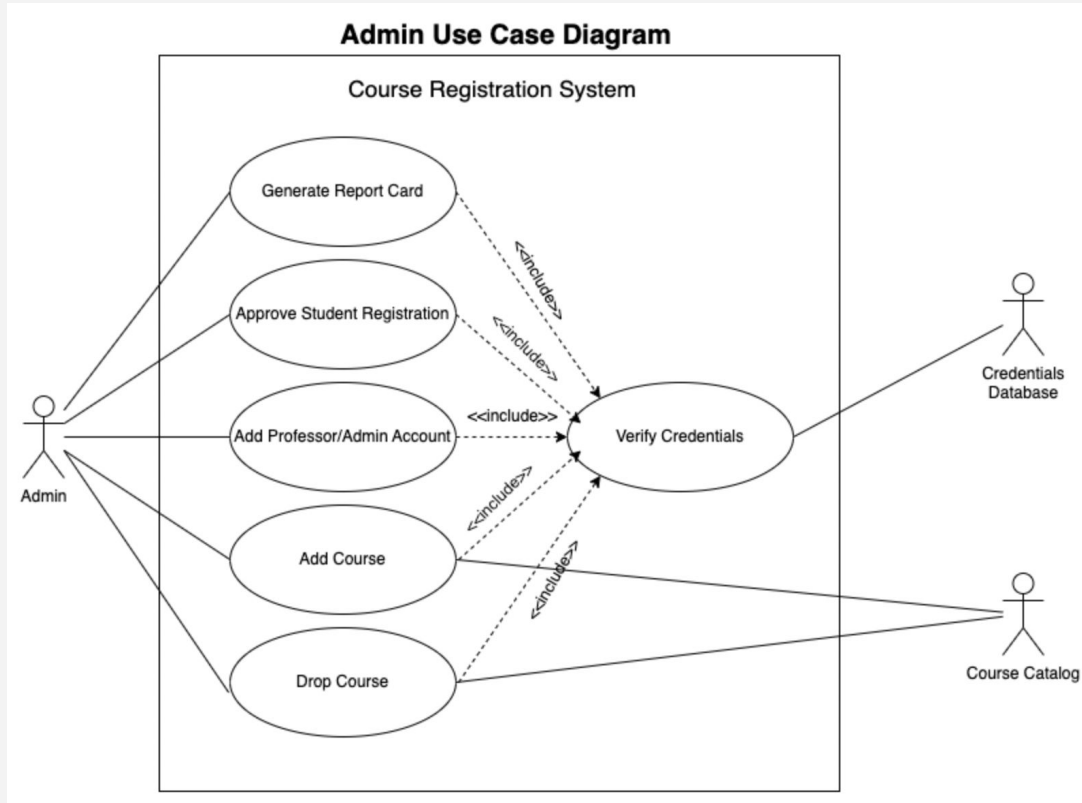


UML Design

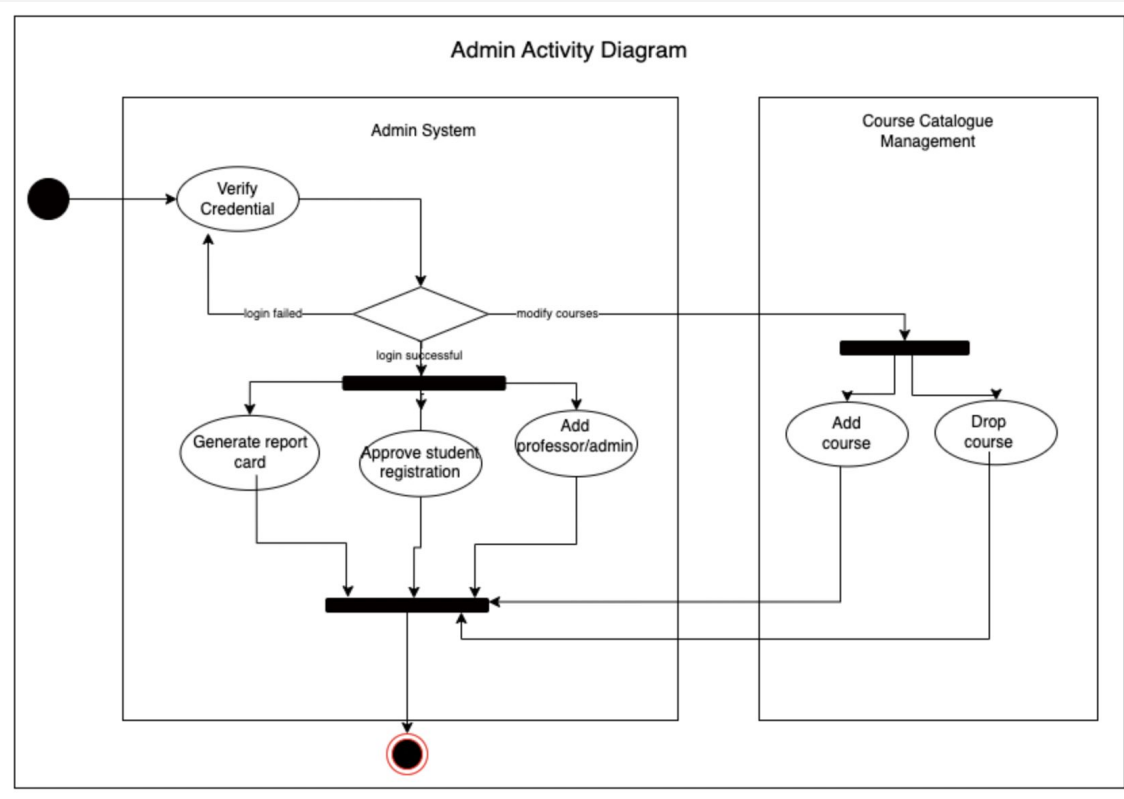
1. Use Case Diagrams.
2. Activity Diagrams.
3. Class Diagram.
4. Sequence Diagrams.



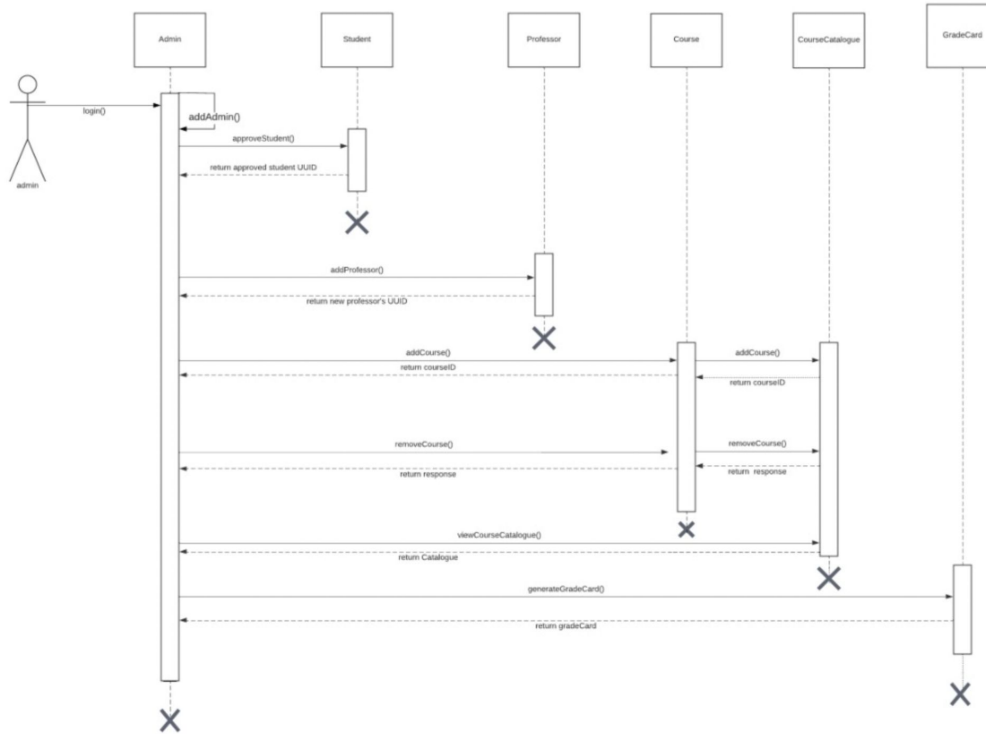
USE CASE DIAGRAM



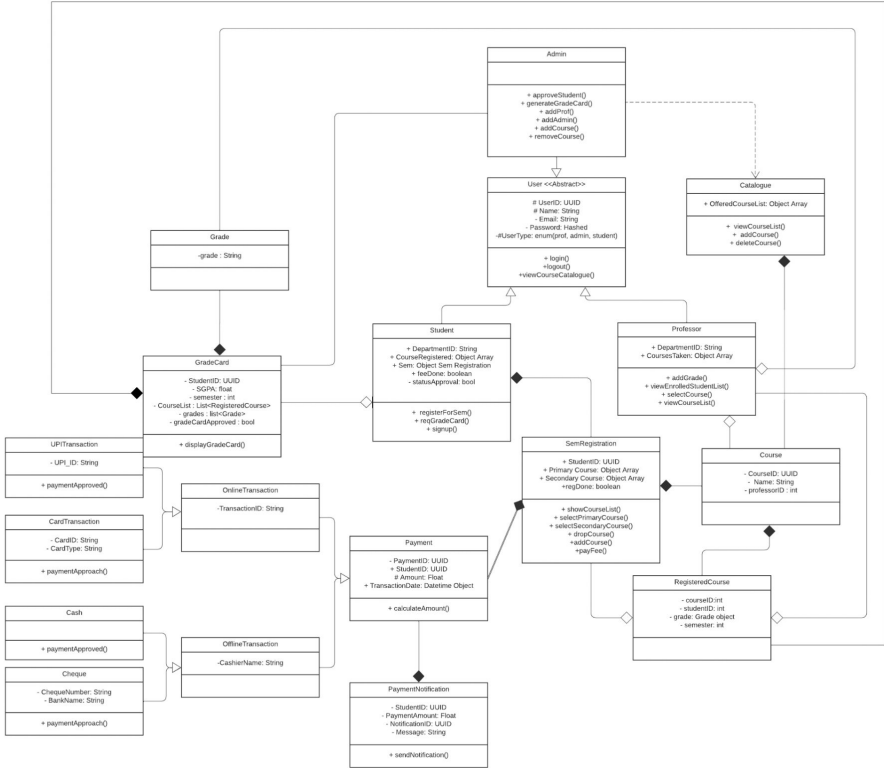
ACTIVITY DIAGRAM



SEQUENCE DIAGRAM



CLASS DIAGRAM



Tech Stack



Designing

UML



 Lucidchart

Backend

Core Language



Framework



DROPWIZARD

Maven



Jersey



REST API

Application Server

jetty://

Testing

Tools



POSTMAN



Data

SQL Database



Navicat



SCM

Code Collaboration



GitHub



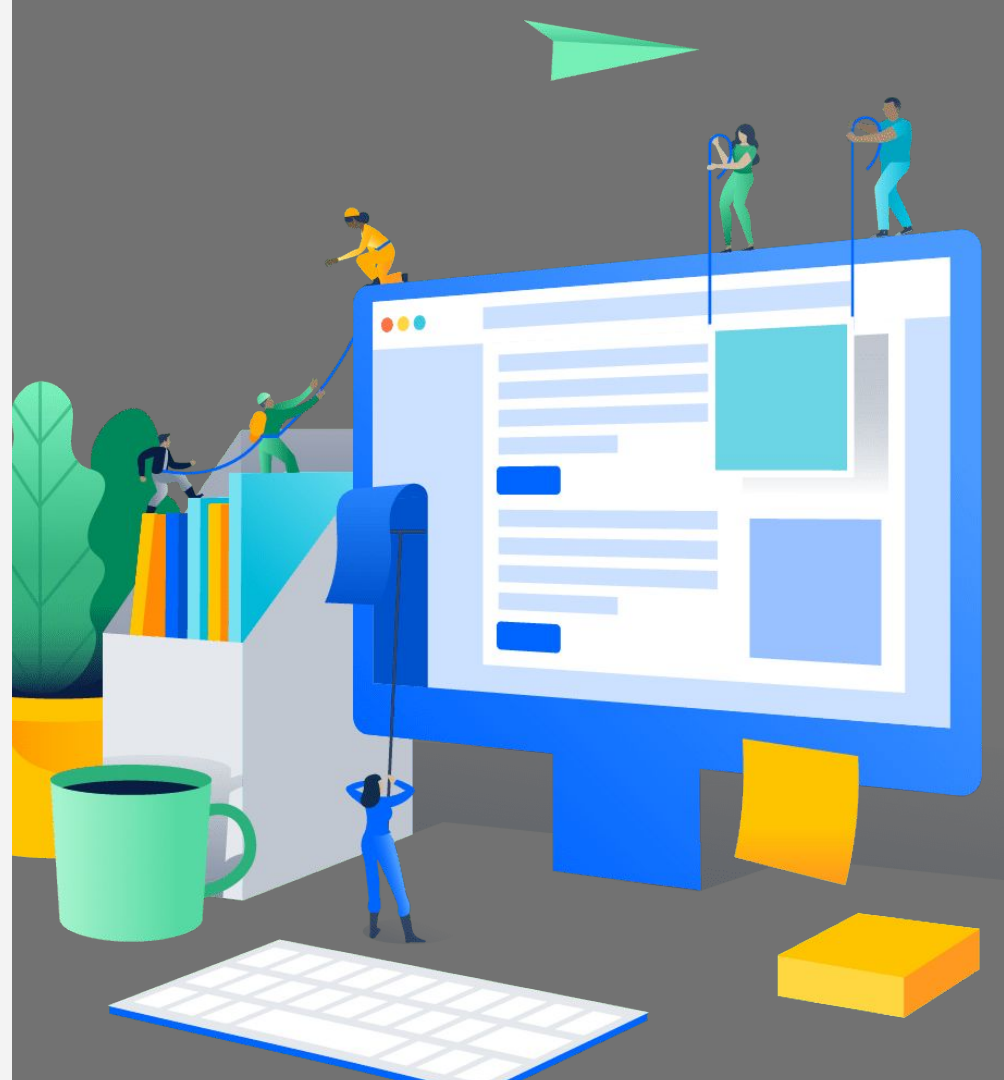
git



CODEBUNK



Development



Development Process

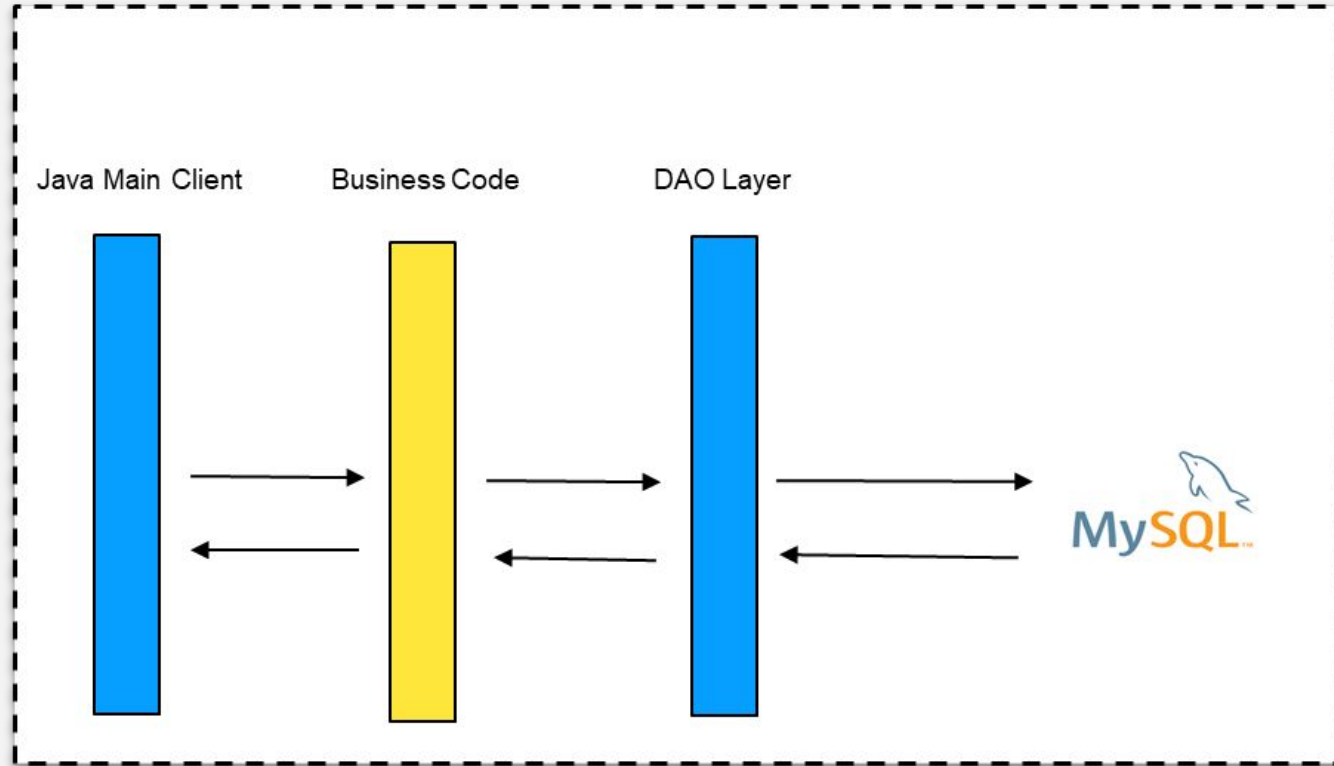
- Understanding requirements and finalizing UML artifacts.
- Defined the classes based on Class diagram and developed the bean package for CRS.
- Defined the services of the CRS and accordingly developed the service package.
- Developed the menu for user interaction with the POS version of the CRS.
- Developed the schema of the database and Integrated into the core Java application using JDBC.
- Extended the POS CRS to Web Service by implementing the REST API's using Dropwizard.
- Collectively and collaboratively solved bugs and tested the system at each and every stage of the development process.

System Architecture: POS Application



Input

Output



System Architecture: REST API Application



HTTP Request



API controller

Business Code

Database Code



HTTP Response



Challenges & Learnings

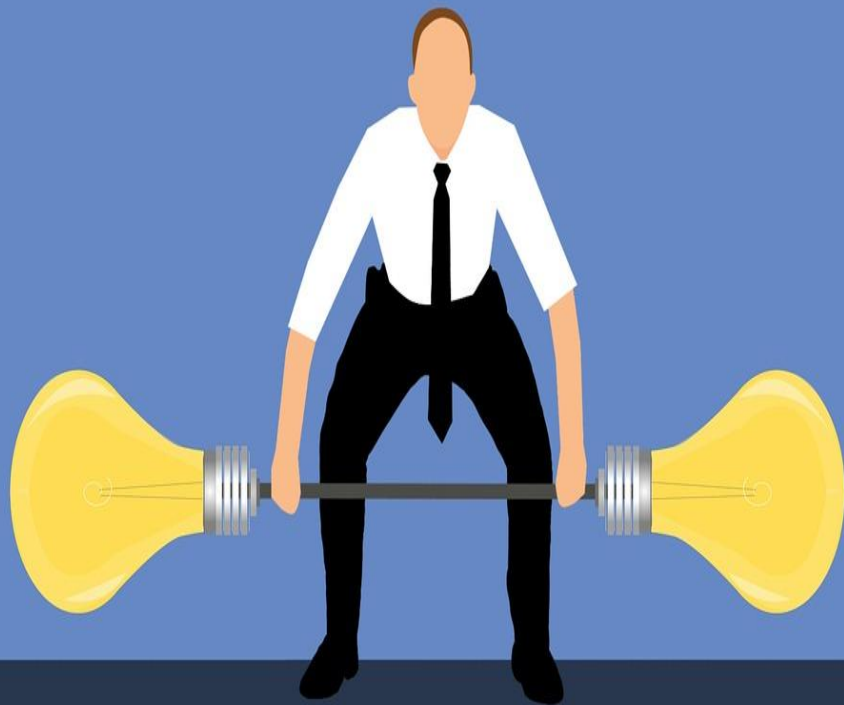


Learnings

- Team Work (collaboration)
- New technologies. - DropWizard, Maven, Postman, MySQL etc.
- LifeCycle of a project (SDLC)
- Industry level project experience
- Learned how to develop UML diagrams for the given problem.
- Learned to configure Maven and DropWizard.
- Integration of REST Services with JAVA code.
- Version control using GIT - merging, PRs,etc.

Challenges

- Database Integration Challenges
- Configuring and installing new technologies
- Resolving merge conflicts in Git
- Resolving jar & version dependencies
- Code debugging



Demo



Team Member	Responsibility
Apoorv Brother	Professor UML Diagrams. Contributed in implementing User, and Admin module. Database Design and Creation.Implemented User and Admin Rest API.
Divyesh Radadiya	Professor UML Diagram. Contributed in implementing Exception Handling. Database Design and Creation.
Manthan Ashar	Admin UML Diagrams. Contributed in implementing Professor module. Database integration with the application.Implemented Professor API.
Kushal Joseph	Student UML Diagrams. Contributed in implementing Student module , Database integration with the application.Implemented StudentRestAPI.
Parth Aggarwal	Student UML Diagrams. Contributed in implementing Admin module and Main Menu for POS Application.
Utsav Siddhpura	Professor UML Diagrams. Contributed in implementing Admin module and Database Integration with the application.
Yashank Garg	Admin UML Diagrams. Contributed in implementing Payment module and Database integration with the application.
Yashi Khandelwal	Student UML Diagrams. Contributed in implementing Payment module and Database integration with the application.

Questions?

Git Repo Link-<https://github.com/parthfk/JEDIProject>





Thank you!