



# FLIPKART

JEDI GROUP - E

# OUR TEAM





**Rishabh**



**Harsh**



**Harshil**



**Sharath**



**Manoj**



**Yash**

T  
E  
A  
M



# STAKEHOLDERS

1. **Sponsors**
  - **Flipkart**
2. **SME's**
  - **Mr. Amit Balyan**
3. **Co-ordinators**
  - **Ms. Anushka Khanna**



# AGENDA

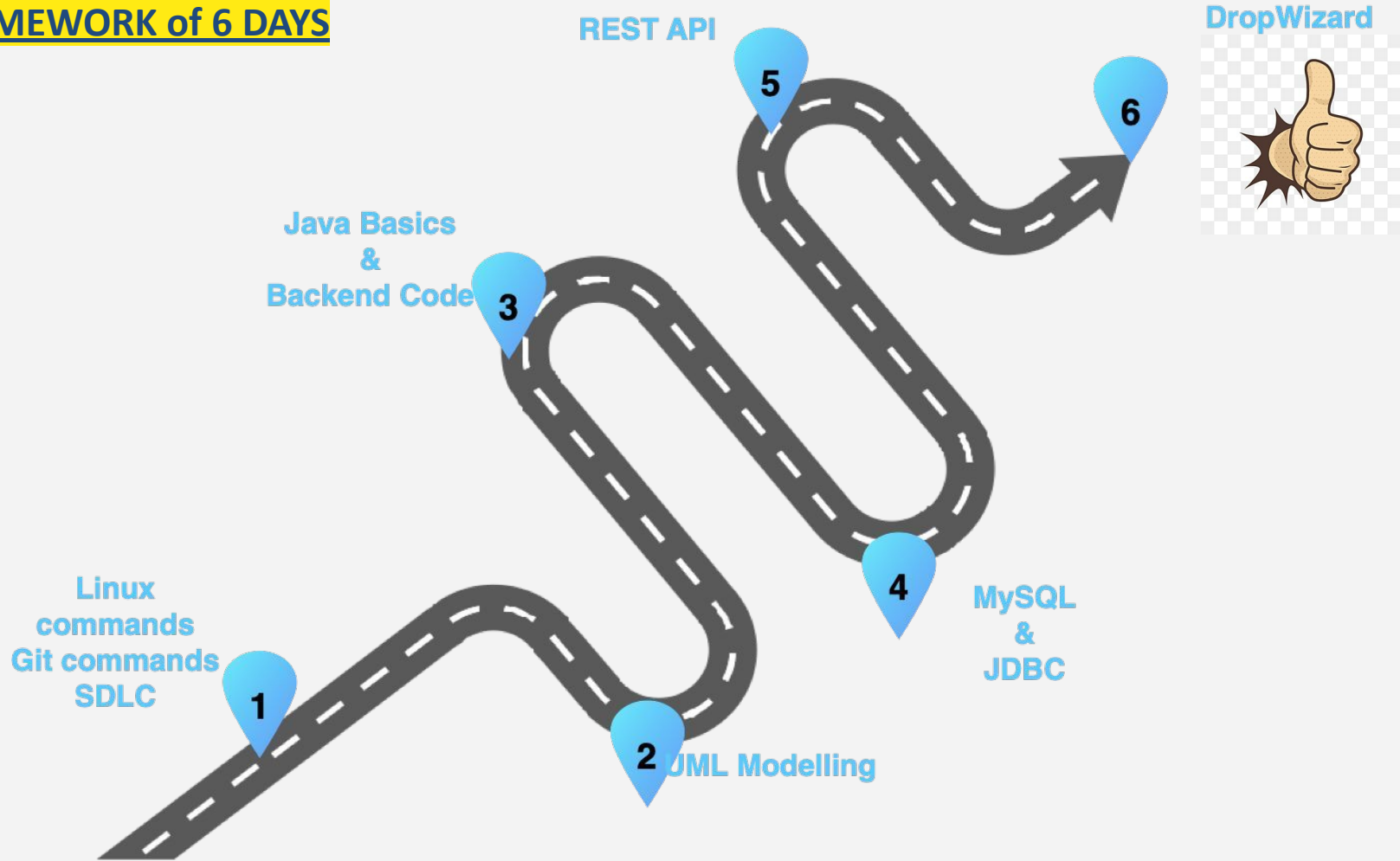
- 01 Framework of 6 days
- 02 Project Goals
- 03 Our Journey
- 04 Understanding SDLC
- 05 UML Artifacts
- 06 Tech Stack
- 07 Development
- 08 Learnings & Challenges
- 09 Demo



# **The Ask – Where we started?**



# FRAMEWORK of 6 DAYS



# 6 DAYS TRAINING + PROJECT DEMO





# PROJECT GOALS



# Vision

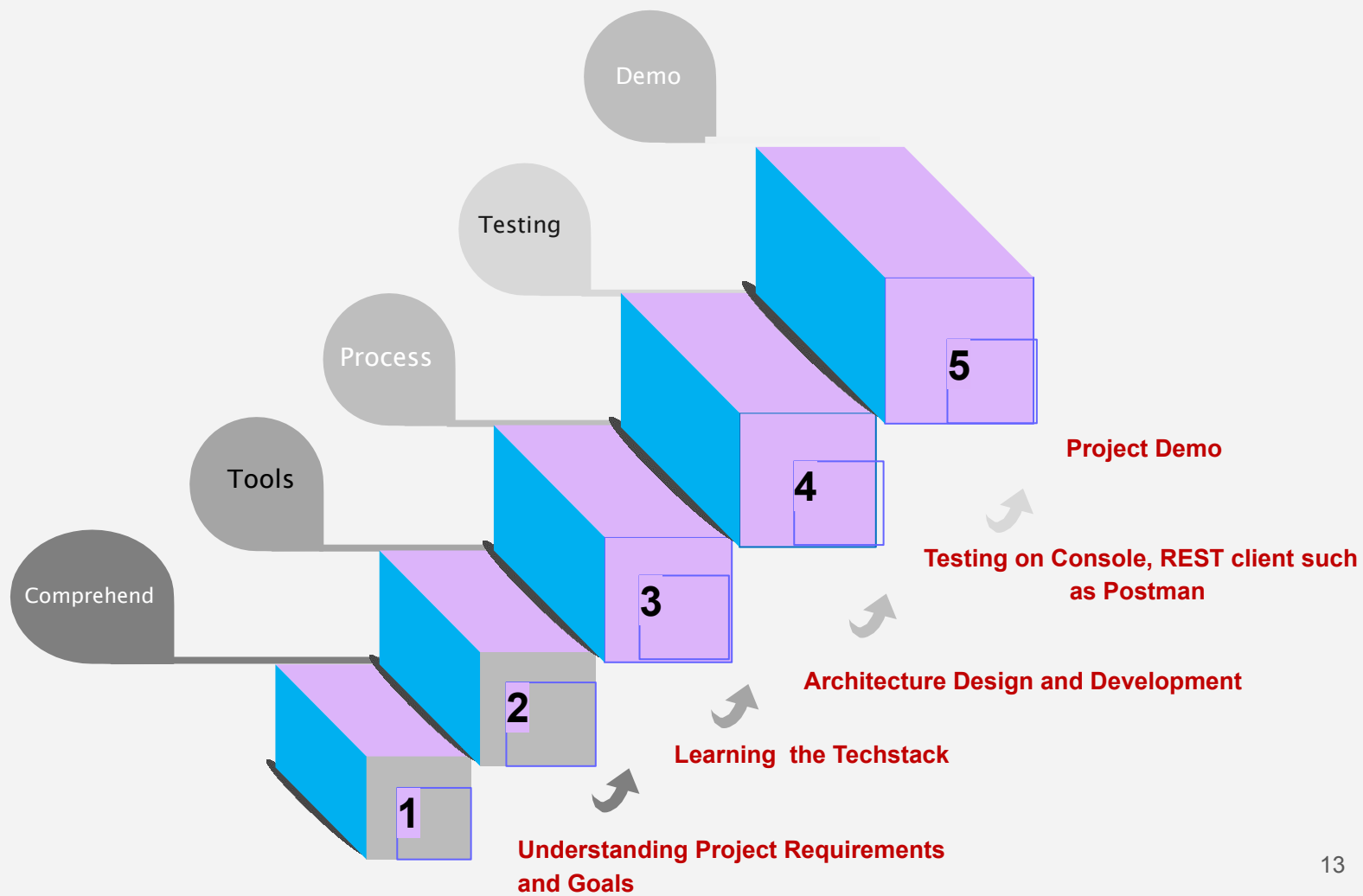
To develop a POS application and REST API application for **Course Registration System** using JAVA where :

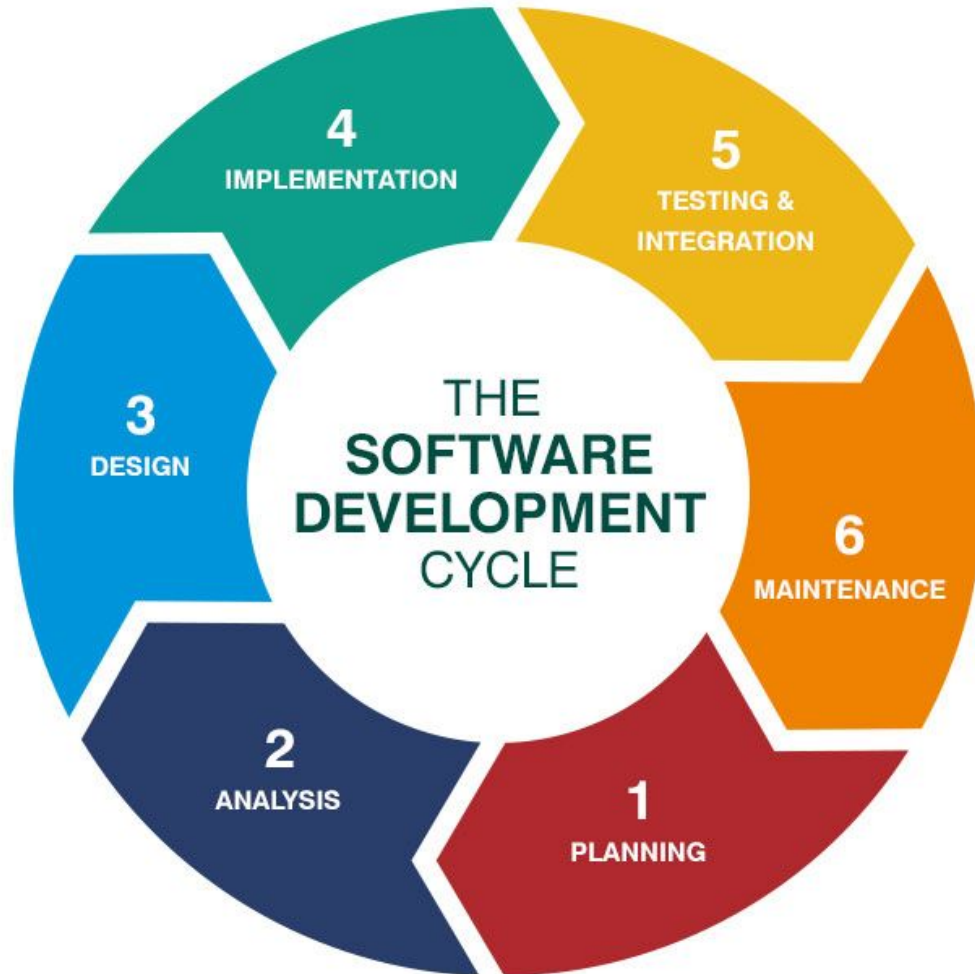
- student can view catalogue, add & drop primary and secondary course, register, pay fee, view grade sheet
- professors can view courses, select courses to teach, view enrolled students, assign grades to students
- admin can approve student registration, generate grade sheet, add/drop courses to catalogue.



# OUR JOURNEY





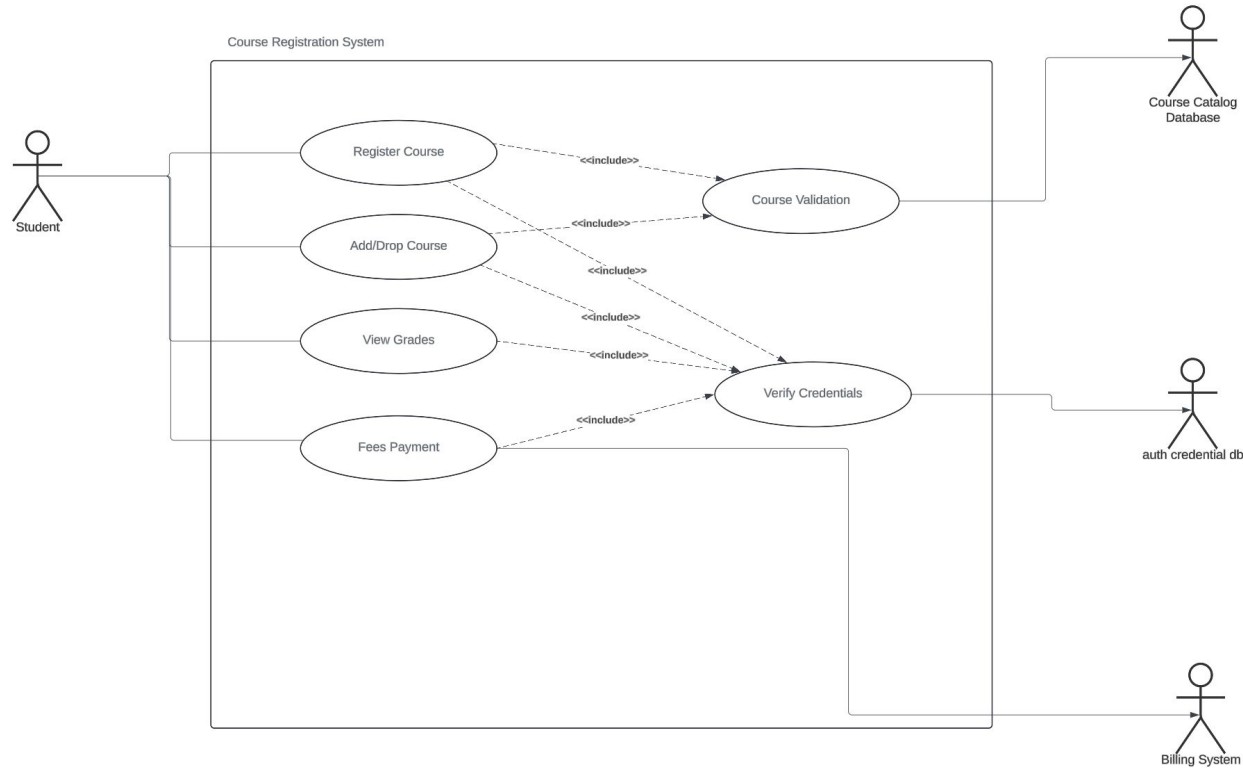


# UML Design

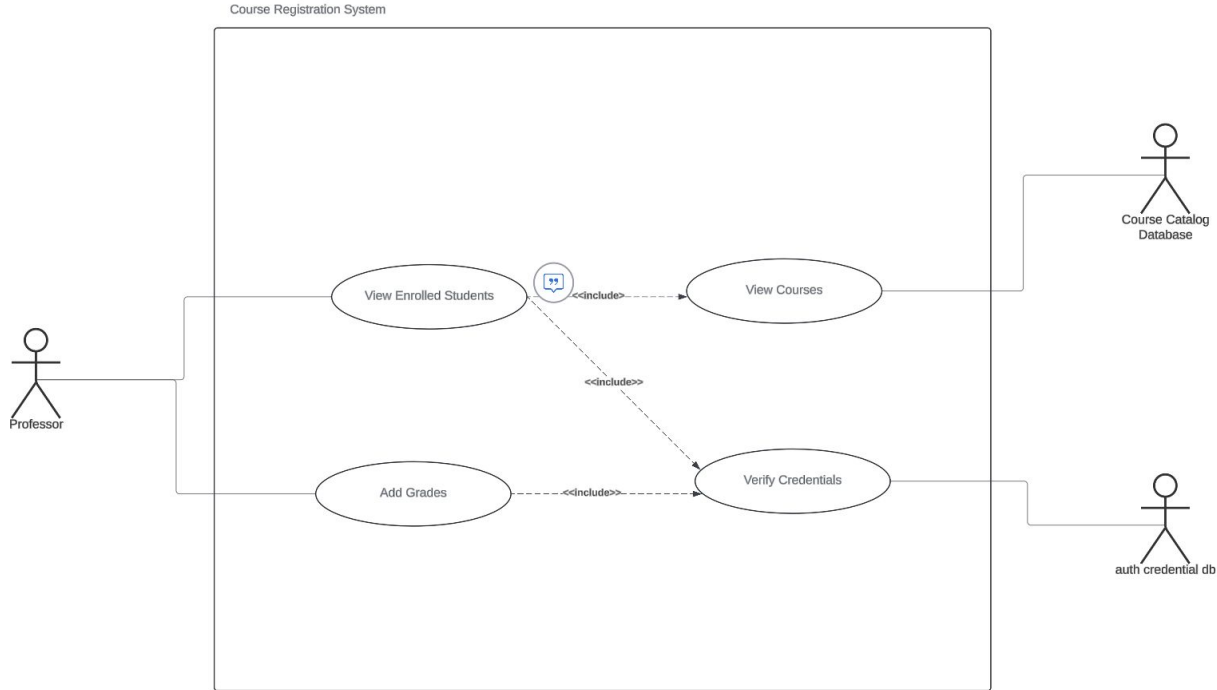
1. Use Case Diagrams
2. Activity Diagrams
3. Class Diagram



# STUDENT USE CASE DIAGRAM

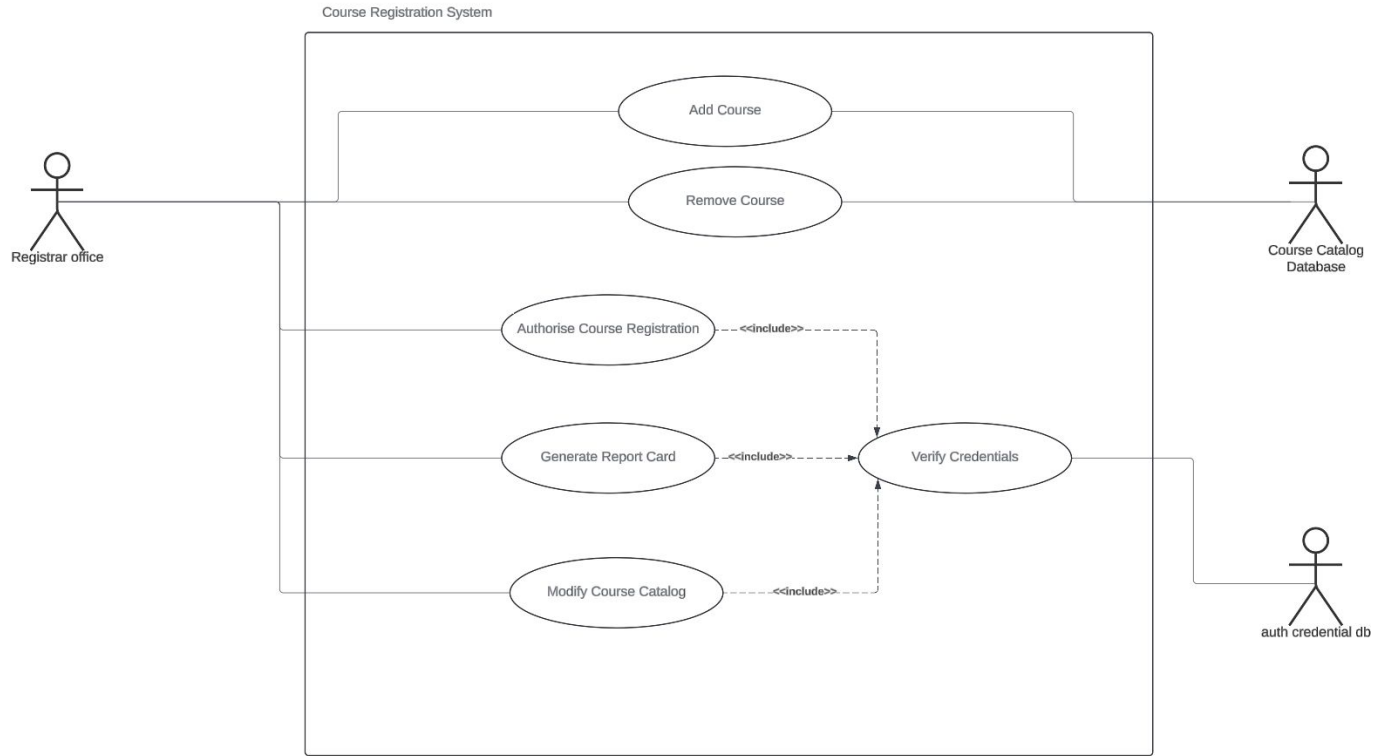


# PROFESSOR USE CASE DIAGRAM

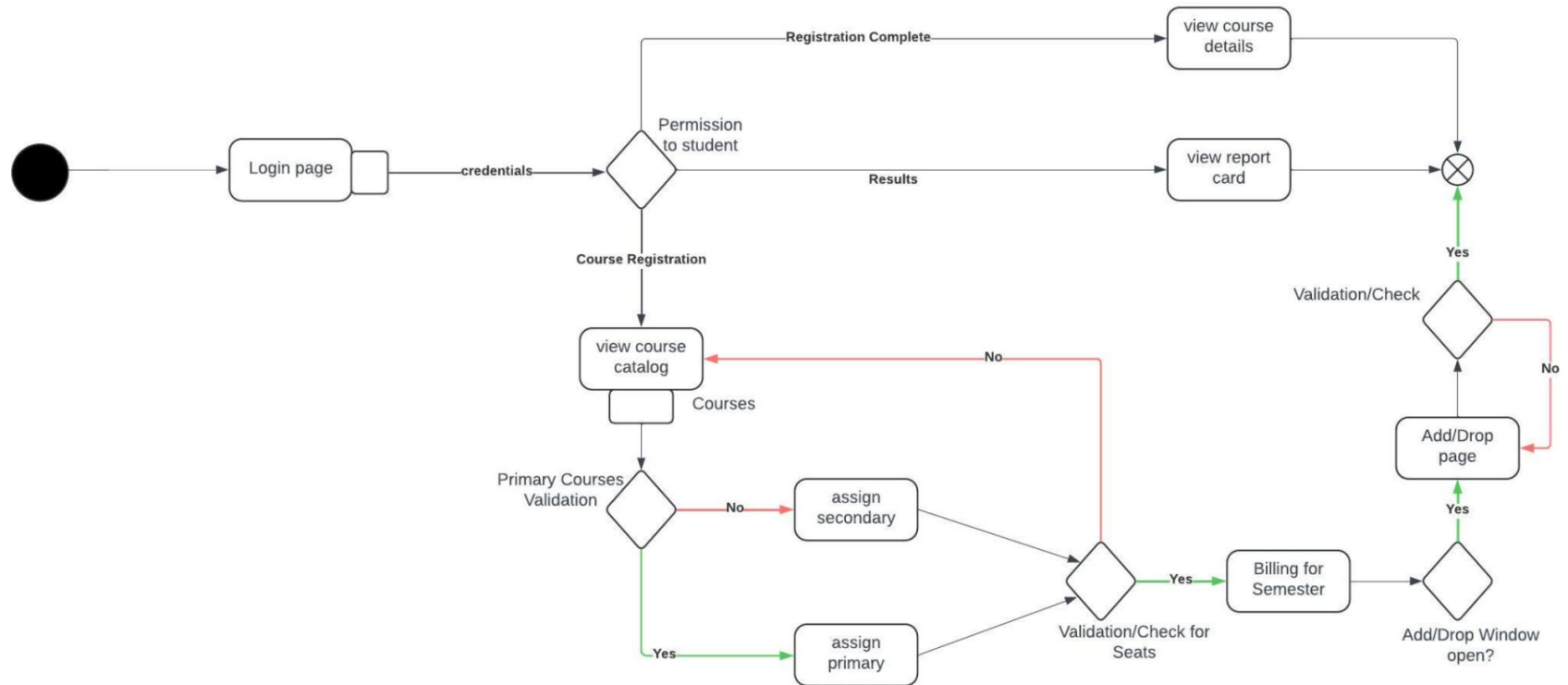




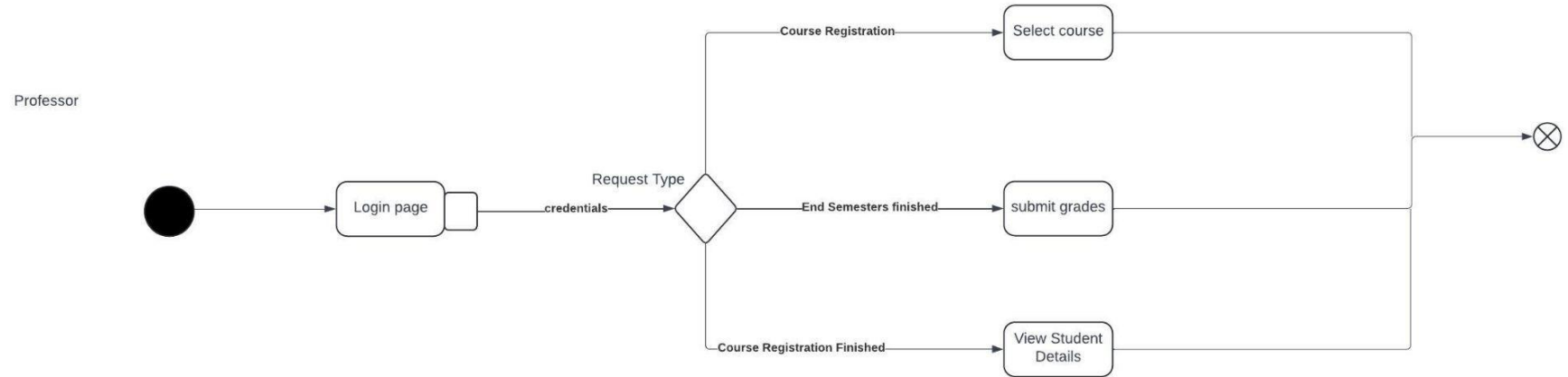
# ADMIN USE CASE DIAGRAM



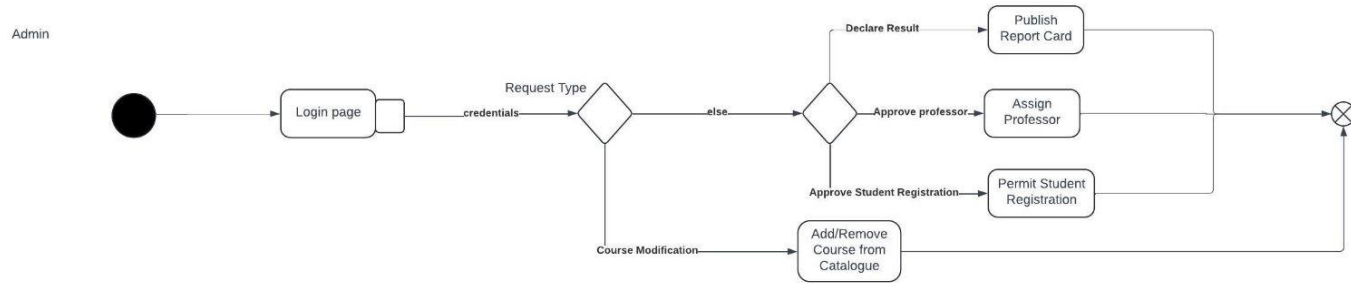
# STUDENT ACTIVITY DIAGRAM



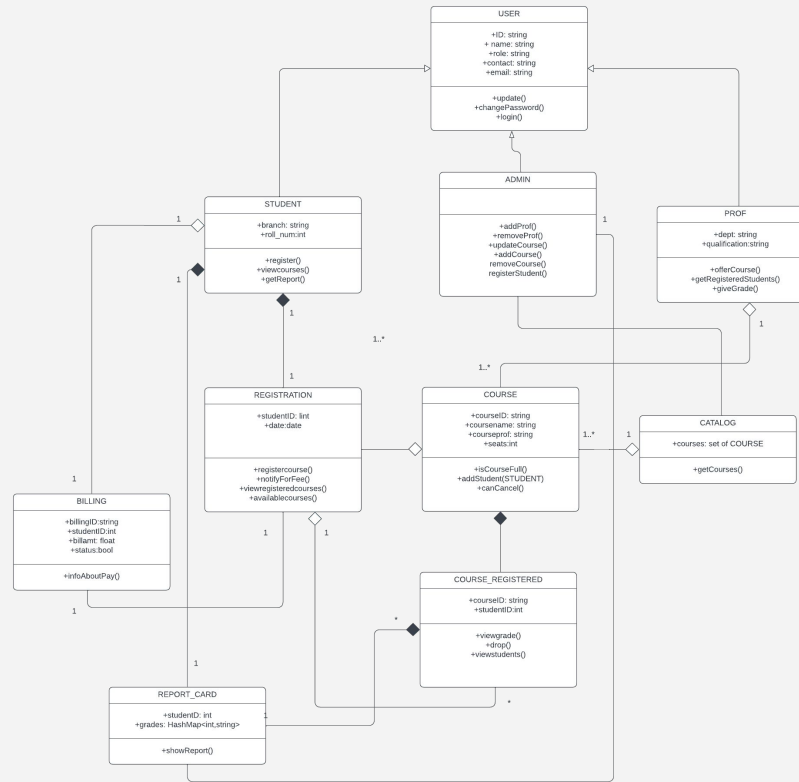
# PROFESSOR ACTIVITY DIAGRAM



# ADMIN ACTIVITY 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



## SCM

Code Collaboration



**GitHub**



**git**

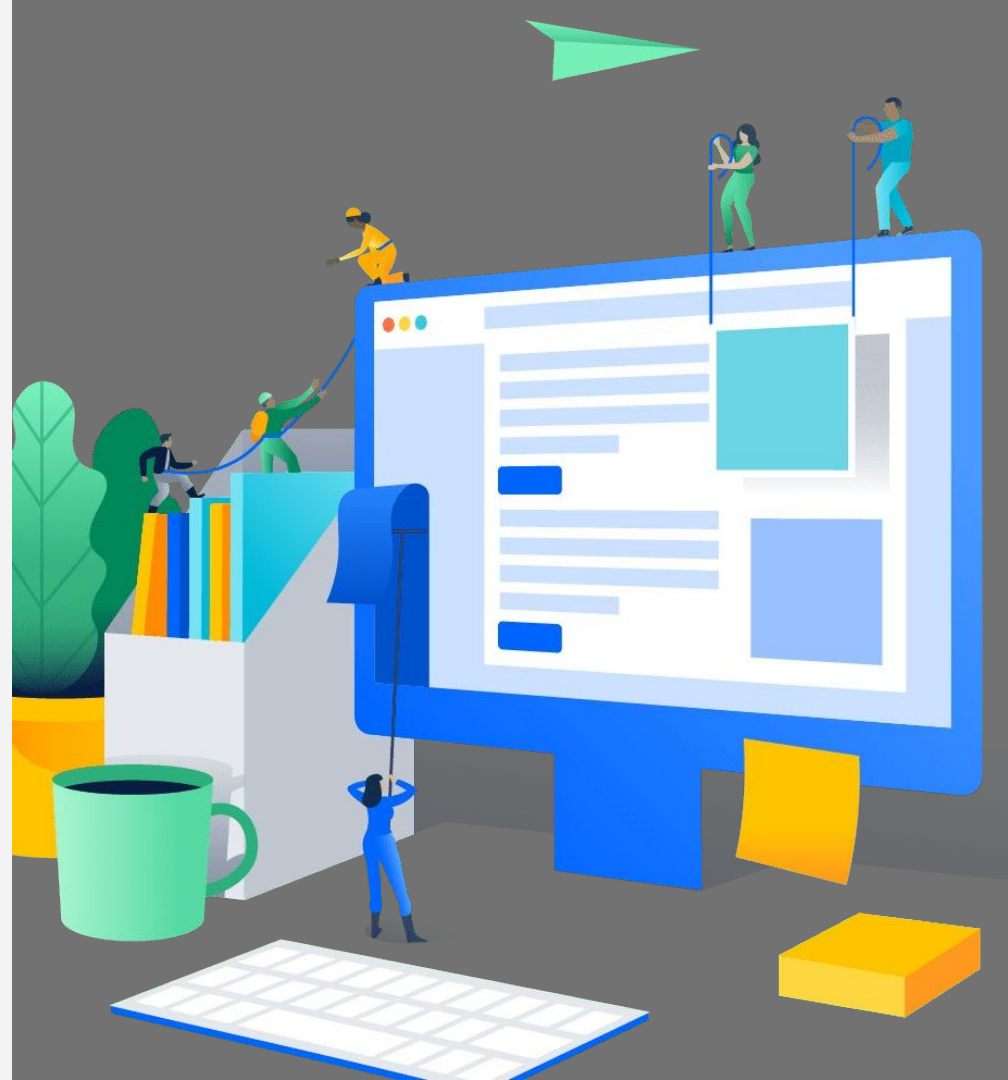


Spring Tools | 4

CODEBUNK



# DEVELOPMENT



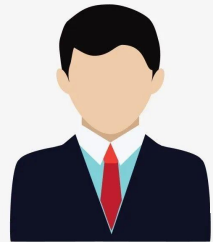


# PROCESS

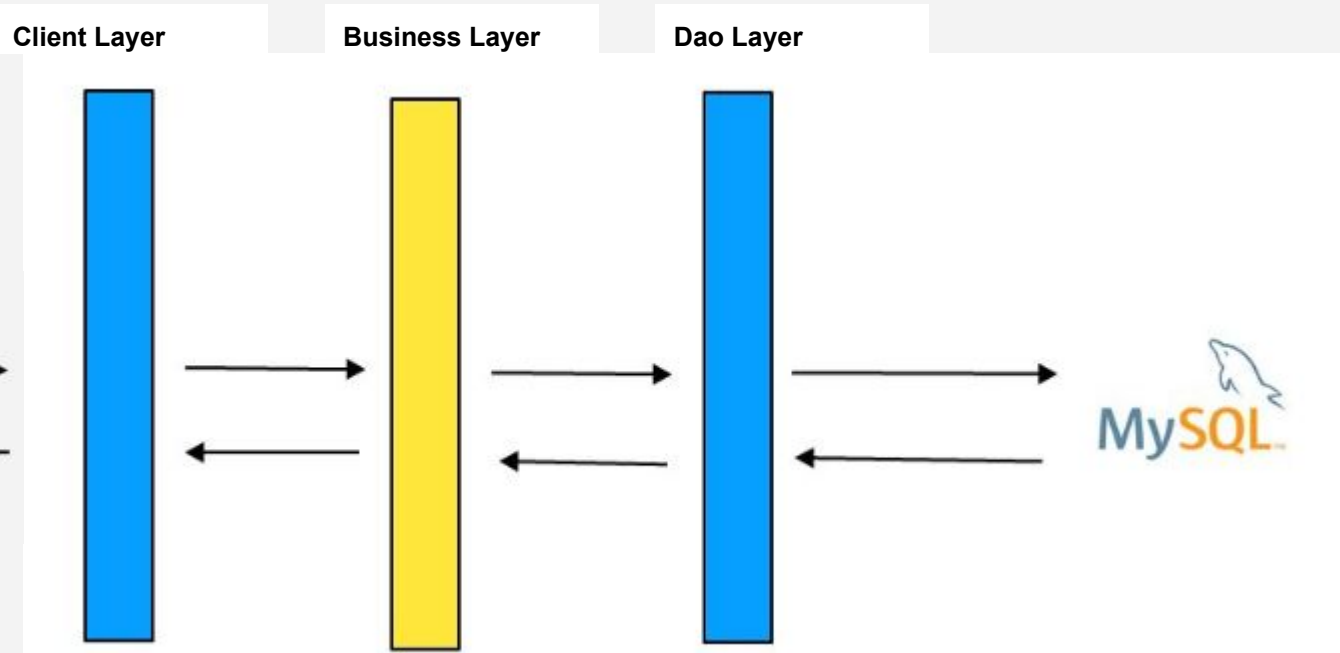
- **Requirement Analysis and UML Artifacts:** Analyzed requirements and finalized UML diagrams to outline the system's structure and design.
- **Class Definitions:** Created classes based on the Class diagram and developed the corresponding bean package for the CRS (Customer Reservation System).
- **Service Definitions:** Designed the services for the CRS and developed the service package accordingly.
- **User Interface Development:** Implemented the menu for user interactions within the POS (Point of Sale) version of the CRS.
- **Database Integration:** Designed the database schema and integrated it into the core Java application using JDBC.
- **Web Service Extension:** Enhanced the POS CRS by extending its functionality to a Web Service through the implementation of REST APIs using Dropwizard.
- **Collaborative Testing and Bug Resolution:** Worked collaboratively to resolve bugs and rigorously tested the system at each stage of the development process.



# POS Application



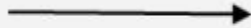
Input  
Output



# REST API Application



HTTP Request



HTTP Response



REST controller



Business Layer C



Dao Layer



# LEARNINGS & CHALLENGES



# Learnings

- **Team Work (collaboration)**
- **New technologies. - DropWizard, Maven, Postman, MySQL etc.**
- **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.**



# Challenges

- Database Integration Challenges
- Configuring and installing new technologies
- Code debugging



**DEMO**



Thank you!

