



JEDI Project Presentation on FlipFit Gym Application

GROUP G



The Beginning:

The purpose of JEDI Training is to improve our proficiency in UML, Java, MySQL, Maven and web integration so we can use these technologies in real-world applications.

The 6-day training plan included:

- Daily discussions on new topics and technologies, along with doubt resolution.
- Daily sessions with the SME/Trainer to review project progress and transformation using UML and relevant technologies and assignments.

Extending our thanks to:

1. Sponsors

Flipkart

2.SME's

Amit Balyan

3.Other HRs and Experts

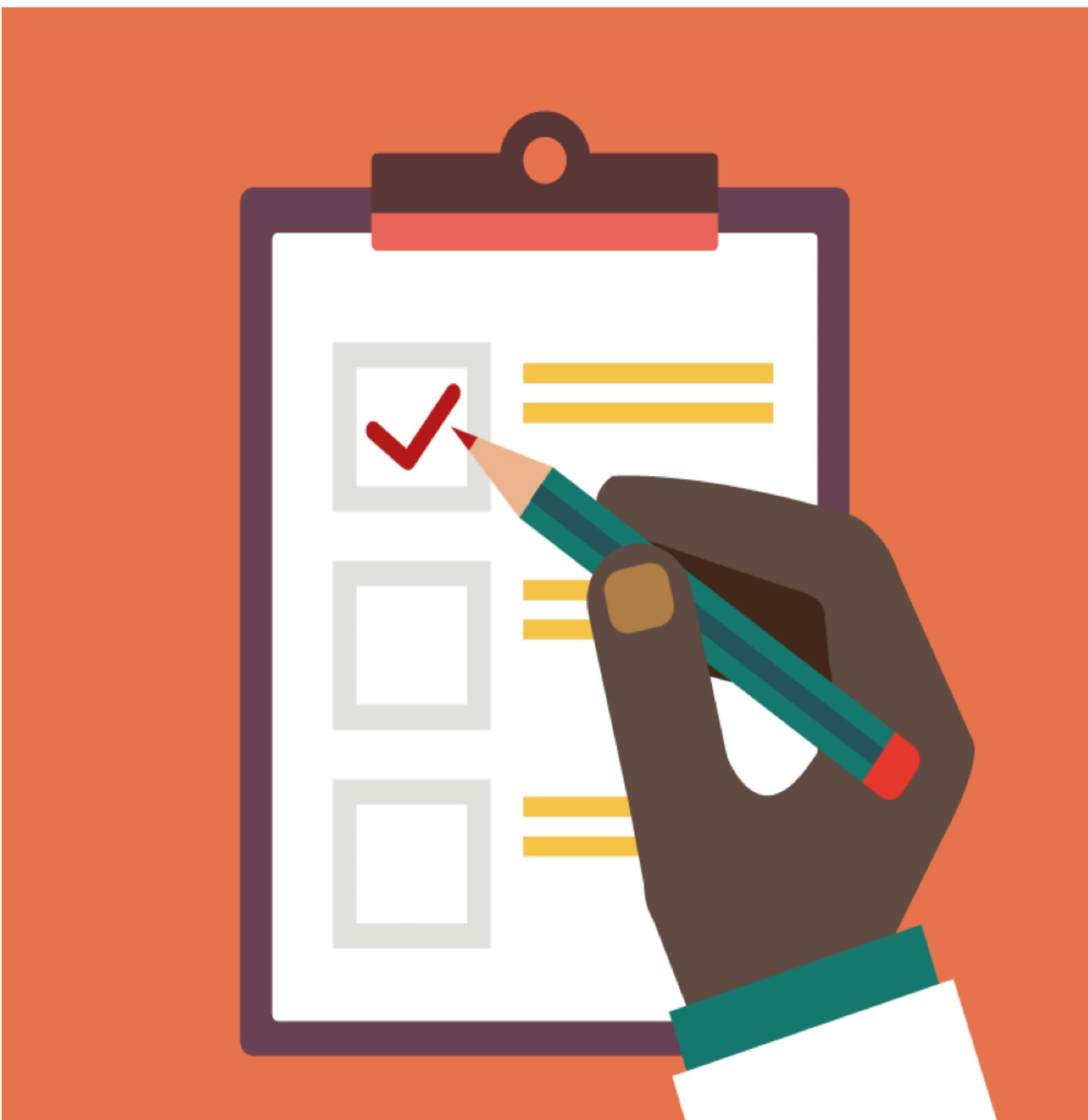
Raksha Dubey & Anushka

Khanna



Agenda

- 01** Our Journey
- 02** Our Team
- 03** Project Goals
- 04** Engineering Practices
- 05** Tech Stack
- 06** Development
- 07** Challenges & Learnings
- 08** Demo
- 09** Questions



Our Journey:



Our Team:

- 1.Rakshita (Team Leader)
- 2.Neeraj
- 3.Prateek Kumar Singh
- 4.Rahul Prasad
- 5.Ritika
- 6.Samir Kumar



Project Goals



Our goal is to develop a robust FlipFit Gym Management System using a variety of development tools and technologies. This system will streamline the management and access of gym services and products for both gym owners and customers. The FlipFit app allows gym owners to add gym centers and available time slots, while users can view all the gym centers in their city, select a convenient location, and choose a preferred time slot based on availability.

Engineering Practices

- An important aspect of working in a team was ensuring proper delegation of tasks to allow for efficient collaboration and to provide a valuable learning experience for all members.
- Since the entire team was working on the same code base, managing it effectively was crucial. To achieve this, we used Git, maintaining a well-structured branching and pull request system to prevent merge conflicts.
- Additionally, we adhered to consistent naming conventions for variables and classes to avoid any confusion later in the project.

Tech Stacks



Backend

Core Language



Framework



Data

SQL Database



Tools

API Client

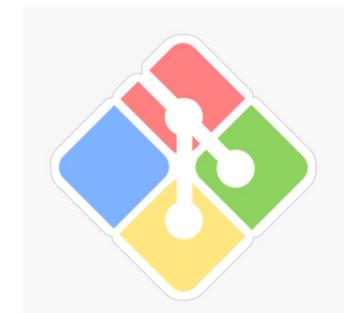


POSTMAN

IDE



SCM



Github

Development

FlipFit aims to achieve the following key goals:

- Simplified Booking Experience: Make booking gym slots across various centers in Bangalore easier with an intuitive, user-friendly interface.
- Efficient Resource Management: Effectively manage gym resources like available time slots and user capacities to ensure a seamless experience for users.
- Stronger Partner Collaboration: Build strong partnerships with gyms by providing them with a powerful platform to manage bookings, track attendance, and optimize resource usage.
- Customer-Centric Approach: Enhance customer satisfaction by providing clear information on available slots, a smooth booking process, and timely notifications.

Our Approach

- Introduction and discussion about the previous skills and trainings of each individual.
- A brief overview of the project, covering the technologies used and the software installation process.
- Daily discussions on various aspects of the project and how they contribute to the overall application.
- Creation of model diagrams, including Use Case, Class, and Activity Diagrams.
- Modifications made to the application based on emerging requirements and continued development.
- Daily meetings with the SME/Trainer to review project progress and adjustments based on UML and technology implementations.

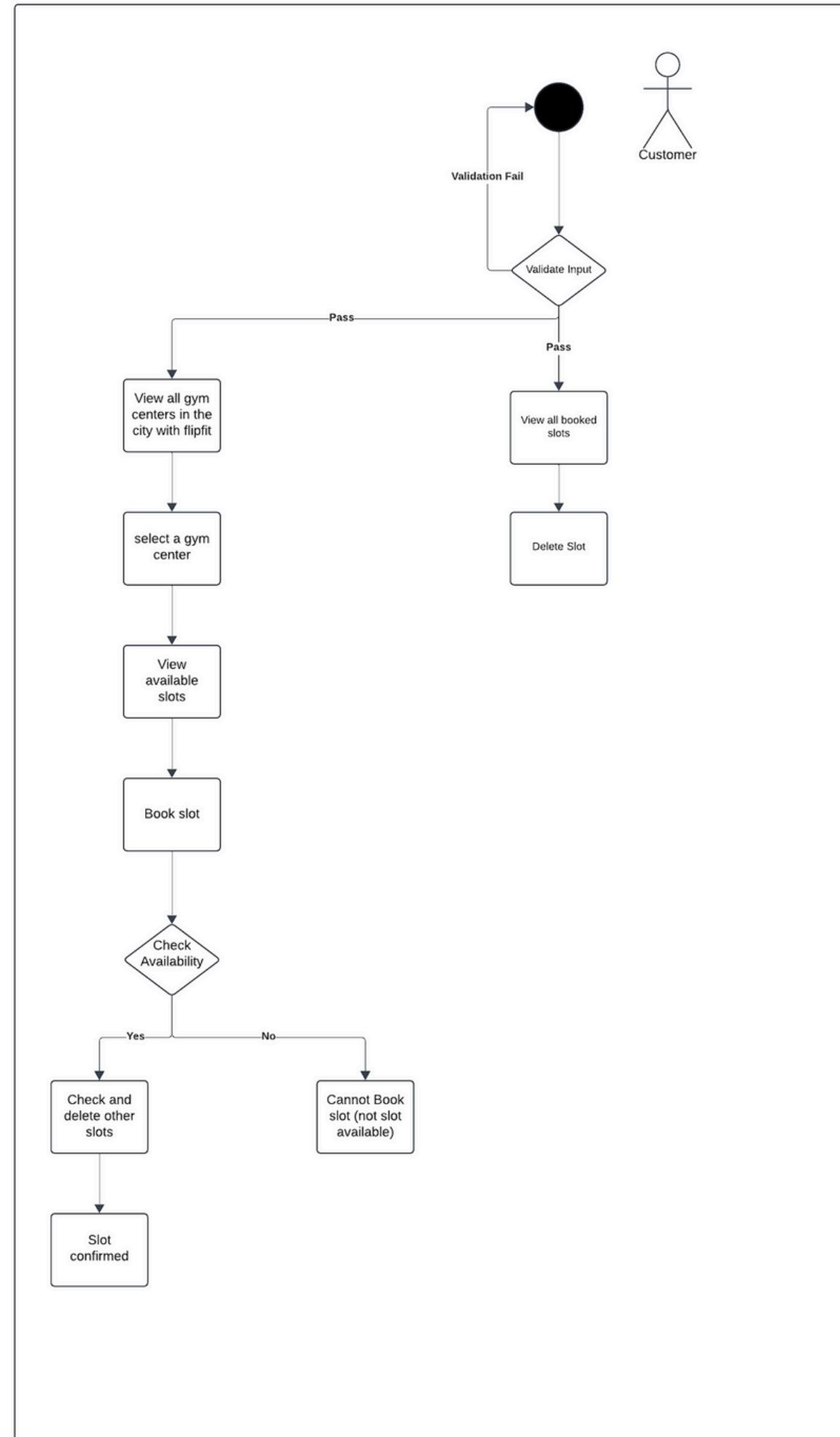
Features of FlipFit Application



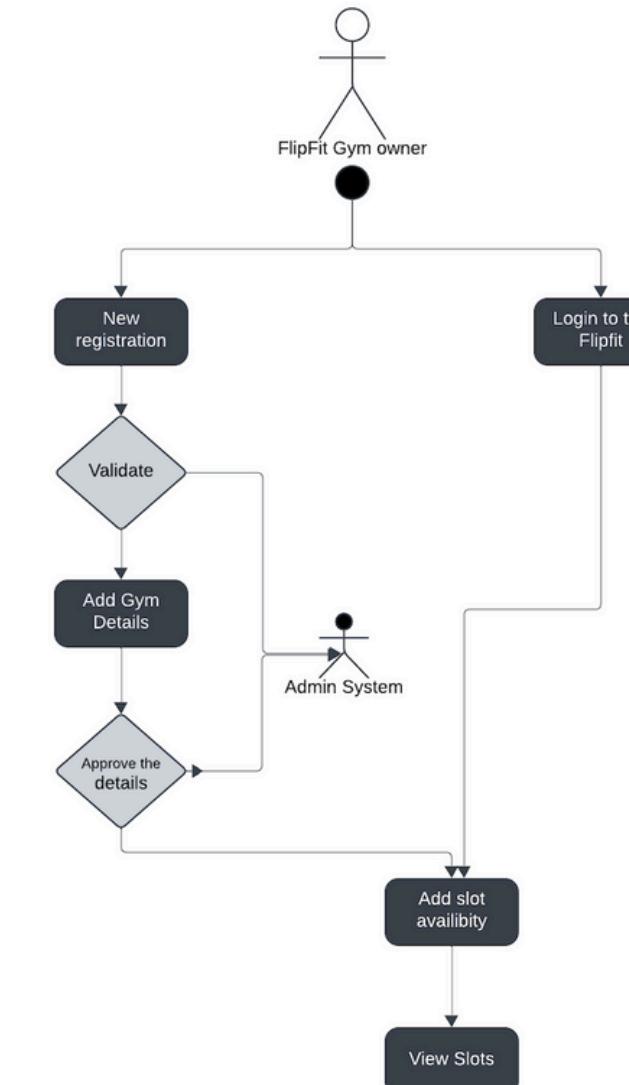
- Customers can view available slots across various gyms and select options based on their preferred time, location, and budget.
- They can book gym slots according to their convenience and the availability at different gyms.
- If a customer misses a slot, they can cancel their booking and choose another time.
- Customers can view their plan details based on the selected day.
- Gym owners from different centers can register their gyms and efficiently manage their operations.
- The admin verifies and approves the gym owners' information to ensure the credibility of the gyms.
- Databases are used to store information about gym centers and bookings, with no reliance on in-memory storage.

Activity Diagram

FlipFit Customer Activity



FlipFit Gym Owner Activity



Project Structure



- Bean: Initialization of classes along with their setters and getters, used for schema and row mapping in JDBC.
- Application: Includes the controller/frontend logic that operates via the command line terminal, serving as the entry point for the FlipFit application.
- Business: Implements the core functionality of FlipFit features in the backend.
- DAO: Manages the storage and retrieval of data from the MySQL database using SQL queries.
- Exceptions: Custom exceptions designed to handle missing data or invalid credentials.
- Constants: Holds MySQL queries as constants for use in the DAO layer, improving code reusability.
- SQL Schema: Defines the database table schema.

How we did it



- Day 1
 - Started by understanding the requirements and creating Use-case diagram, Activity diagram and UML diagram.
- Day 2
 - Created the project structure, bean and application classes
- Day 3
 - Created the classes handling business side of the application.
- Day 4
 - Created the database and DAO classes to access these databases.
- Day 5
 - Added exception handling
 - Added new features of Java 17 into our application.
- Day 6
 - Added dropwizard to our application and finalised our presentation.

Challenges Faced

- Coordination and Communication.
- Installing new software and adapting to work with them.
- Integration of various modules.
- Testing and debugging code based on changes to the database schema.

Learnings

- Team collaboration and clear communication.
- Tech Stack: Git, GitHub, Java, MySQL.
- Developing a fully functional application with scalability in mind at each stage.
- Managing module coupling and interdependencies in a large-scale project.
- Adhering to industry development practices and working under tight deadlines.

Learnings



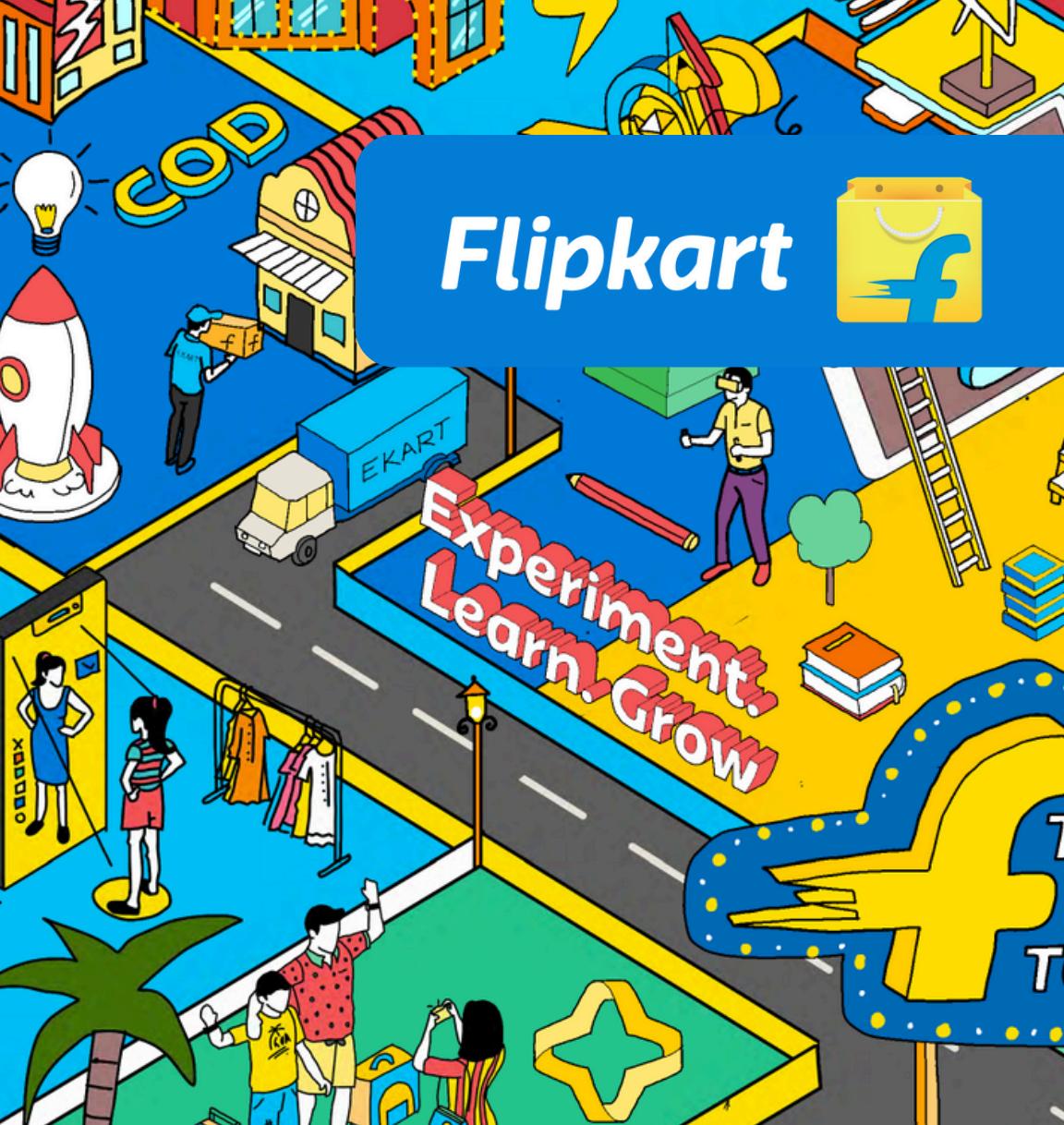
- Continuous code changes and deployment to GitHub using Git commands.
- Utilization of Java 17 and APIs such as Date and Time and Stream API to improve application efficiency.
- Gained an understanding of the importance of use case diagrams, class diagrams, and activity diagrams before beginning the project.
- Recognized the value of proper code commenting and documentation when working on a project completed in phases.

Demo





Q&A



Thank you!!