



Flipkart



FLIPFIT

f TOGETHER,
WE DARE
TO MAXIMISE.



Where did we start?

We began our journey as a team and we individually have only limited knowledge on smaller scope projects which we have done in our colleges.

On the first day, we only knew some fundamentals of Git, followed by the workings and syntax of Java.

Framework for the week

- 6 days plan
- Every Day Discussion about topics/technologies
- Every day with SME/Trainer discussion of Project progress and transformation based on UML and technologies

Stakeholders

1. Sponsors

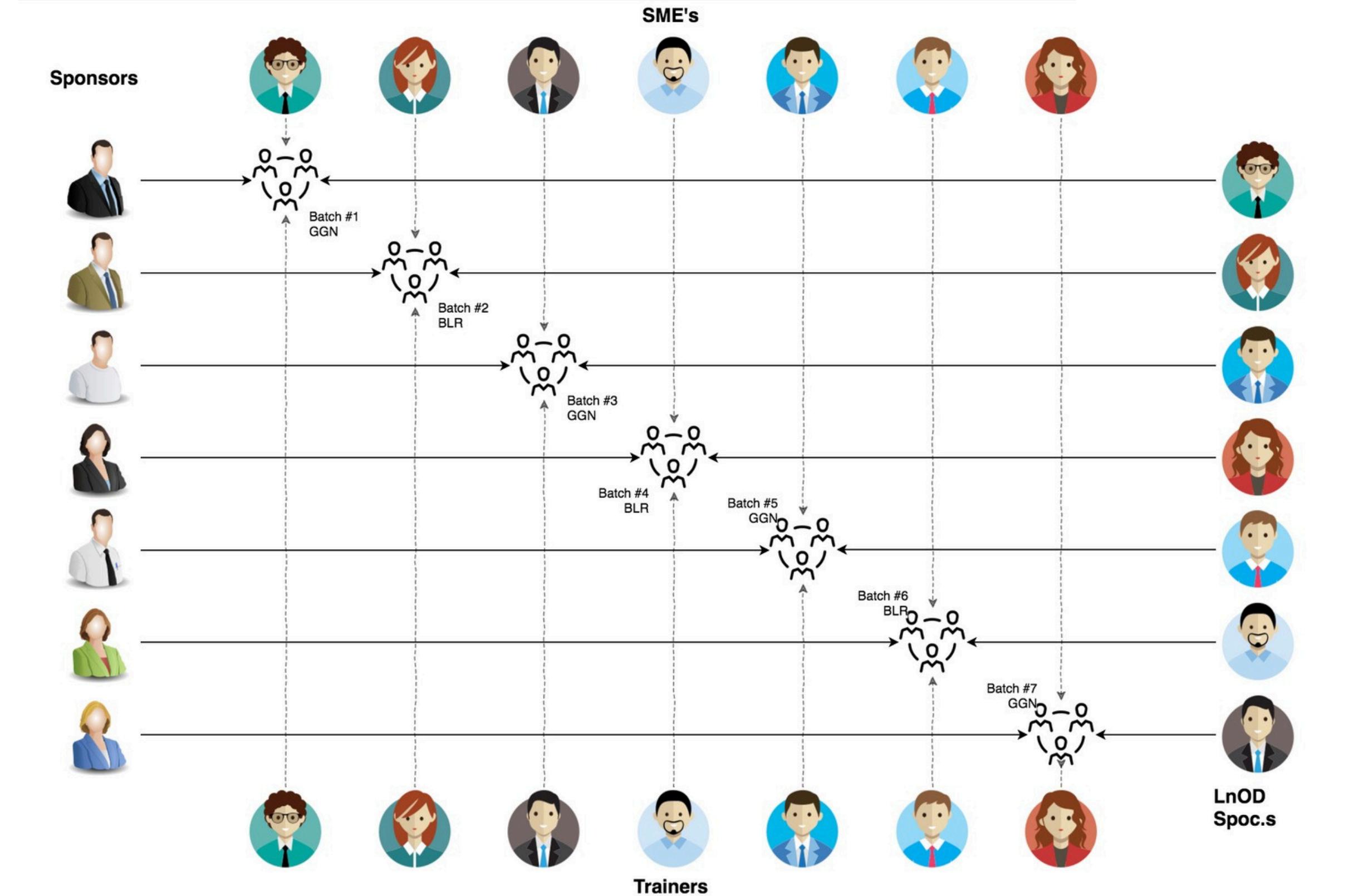
1.1 Flipkart

2. SME's

2.1 Mr. Amit Balyan

3. Trainers

3.1 Ms Anushka Khanna





Our next starts
NOW

1 Week of Training + Project demo



Agenda

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



Our Journey



- Project Demo
- Adapting to a developer Mindset
- Design Thinking
- Decide the Technologies JAVA, DropWizard, MySQL
- Understanding Project Goals

Our Team



Khushi Jain - Team Leader

Sanchit Chaba

Vasu Maheshwari

Aman Srivastava

Amit Kumar Pandit

Ashutosh Saini

Project Goals

Welcome To FlipFit:

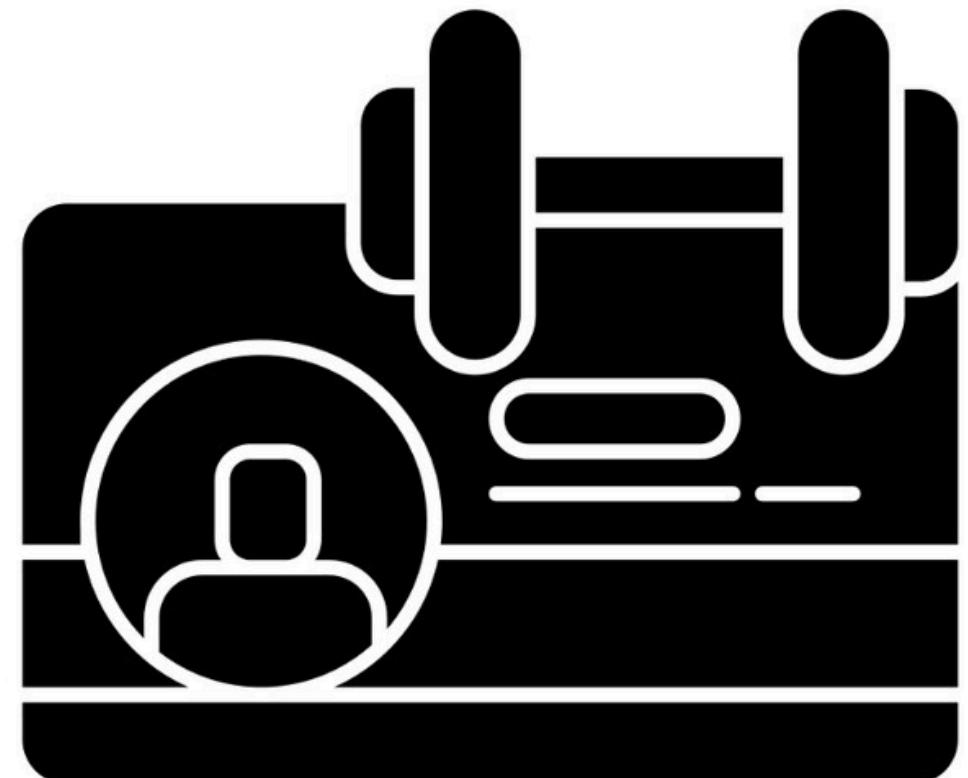
Type

1-> Login,

2-> Registration of Customer

3-> Registration of Gym Owner

4-> Exit





Problem Statement

Design FlipFit, an enterprise app for Flipkart's fitness venture in Bengaluru. Features include multiple gym centers with fixed-hour slots per center, managed by gym owners. Users can register, view center availability, and book slots, ensuring no double bookings and capacity constraints. Simplified admin slot setup ensures accurate booking management.

Our Vision

FlipFit is dedicated to transforming the fitness landscape in Bengaluru by alleviating common customer grievances and offering a unified platform that simplifies the discovery, booking, and management of gym sessions across multiple centers.



Timeline for 1 Week



Day 1

- Install necessary tools and establish team roles.
- Discuss problem statement, goals, and solutions.a
- Plan project milestones and deliverables.

Day 2

- Introduction to Git: Setup repository, branching, merging.
- Low-Level Design (LLD): Use Case, Class, Activity diagrams.
- Define application structure: Bean, Business, Client packages.

Day 3

- Explore JDK 17 features: Sealed classes, pattern matching.
- Divide application into packages: Bean, Business, Client.
- Start coding foundational components.

Day 4

- Connect MySQL database to FlipFit App.
- Implement DAO for database interaction.
- Develop business logic and login functionality.

Day 5

- Proceeded to MySql server and Workbench.
- Begin web-based application development.
- Improved the business logics.

Day 6

- Explored and implemented DropWizard.
- Prepared presentation.
- Explored High Level Design of JEE and its applications in web technologies.

Engineering Practices



1. Version Control (Git/GitHub): Used Git for version control, feature branching, and regular commits.

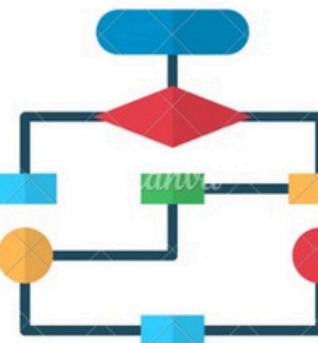
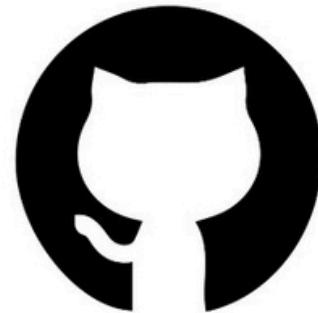
- Benefits: Facilitates collaboration, tracks changes, and enables easy rollback.

2. UML Diagrams: Standardized on UML for system design, ensure clarity in diagrams, and use tools for consistency.

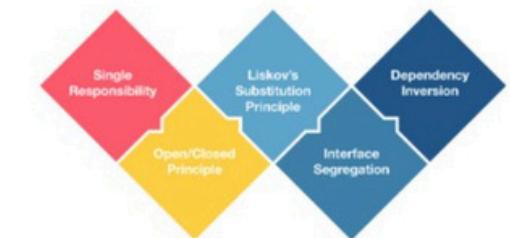
- Benefits: Aligns team understanding, supports documentation, and aids in communicating design.

3. Design Principles (SOLID): Applied SOLID principles (Single Responsibility, Open/Closed, Liskov Substitution, Interface Segregation, Dependency Inversion) for robust, maintainable code.

- Benefits: Improves code quality, scalability, and facilitates easier maintenance and extension.



S.O.L.I.D.



4. Business Modules and Packaging: Organized code into cohesive modules aligned with business domains, use appropriate packaging structures.

- Benefits: Enhances modularity, reduces dependencies, and improves code organization and reusability.

5. Documentation and Knowledge Sharing: Maintained comprehensive documentation and Conducted internal team meetings before working on any feature

- Benefits: promotes knowledge sharing, and serves as a reference for future development and maintenance.

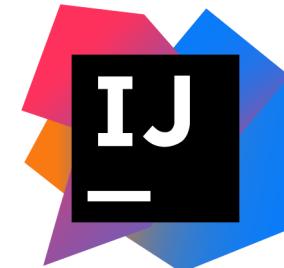
TechStack



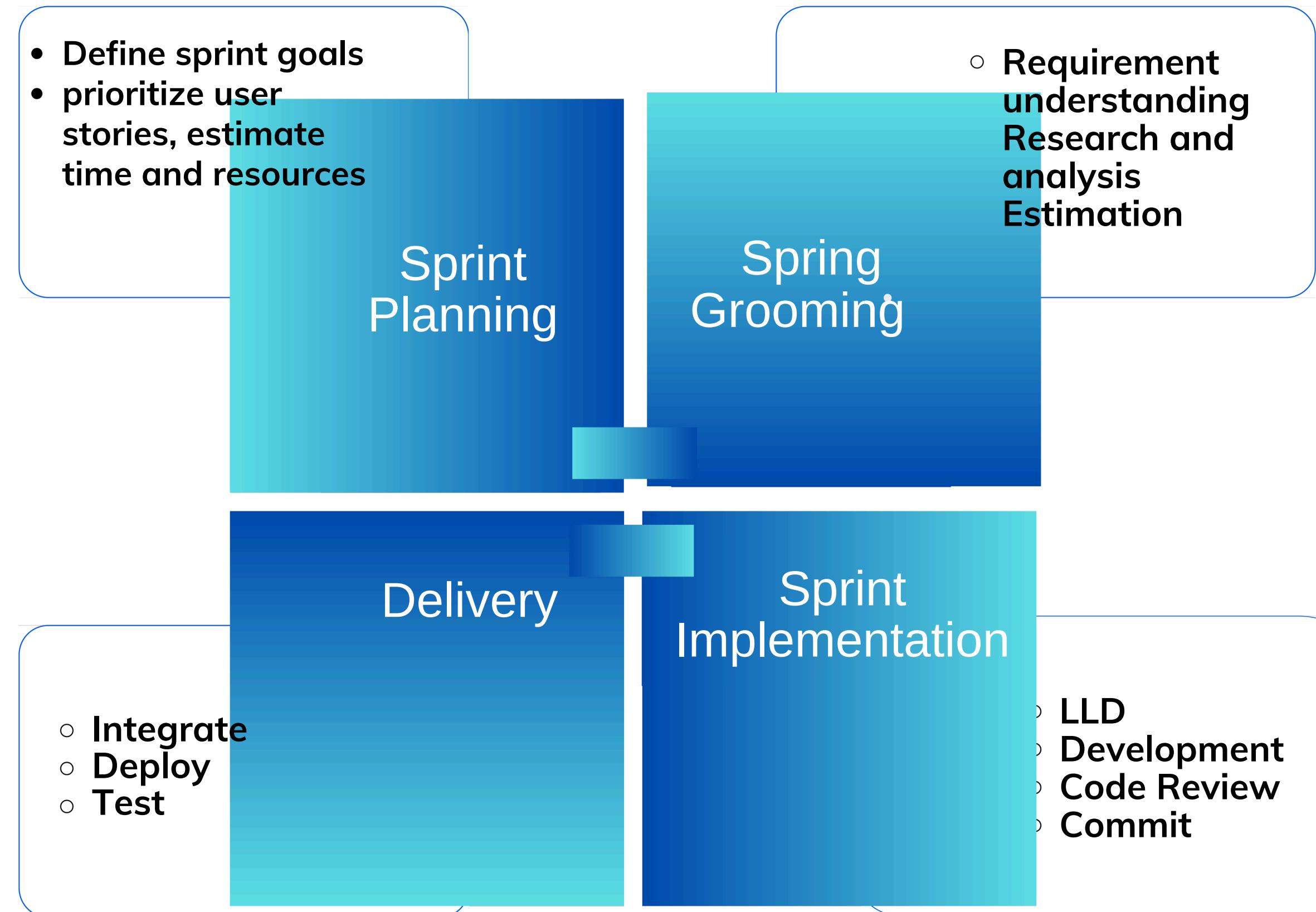
Backend

Data

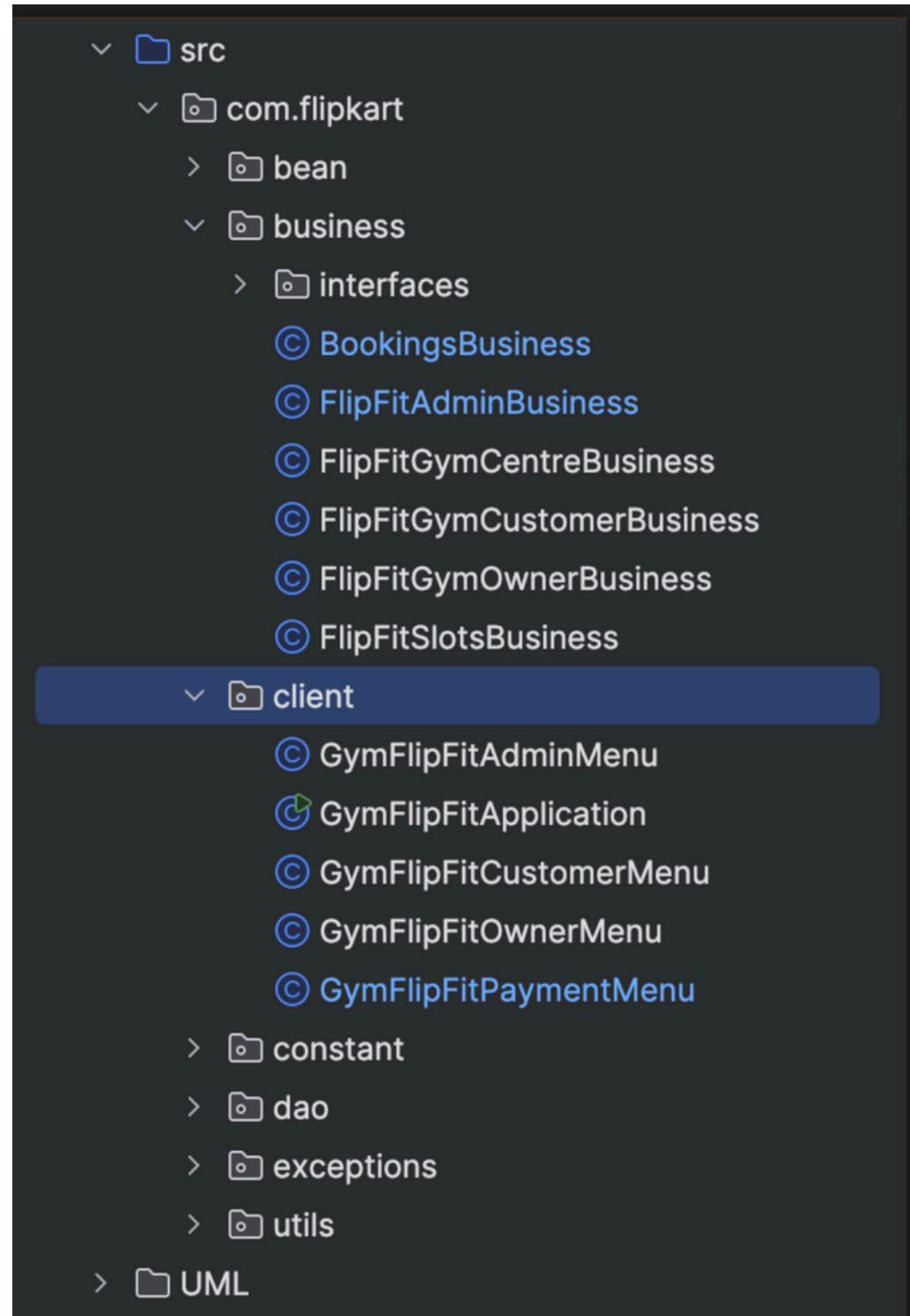
Tools



Development



Project Structure



How did we write code?

- Bottom-up code
- Vertical responsibilities

Flipkart



What we did well

1. Read and create functionality in User, GymOwner, GymCustomer, Bookings, Slots and GymCentre DAO's
2. Backend functionality for multiple payment types for the customer
3. Well tested and functional backend
4. Minimal merge conflicts, proper branching of project
5. Extensively used git



Challenges & Learnings



UML Diagram - LLD Structure



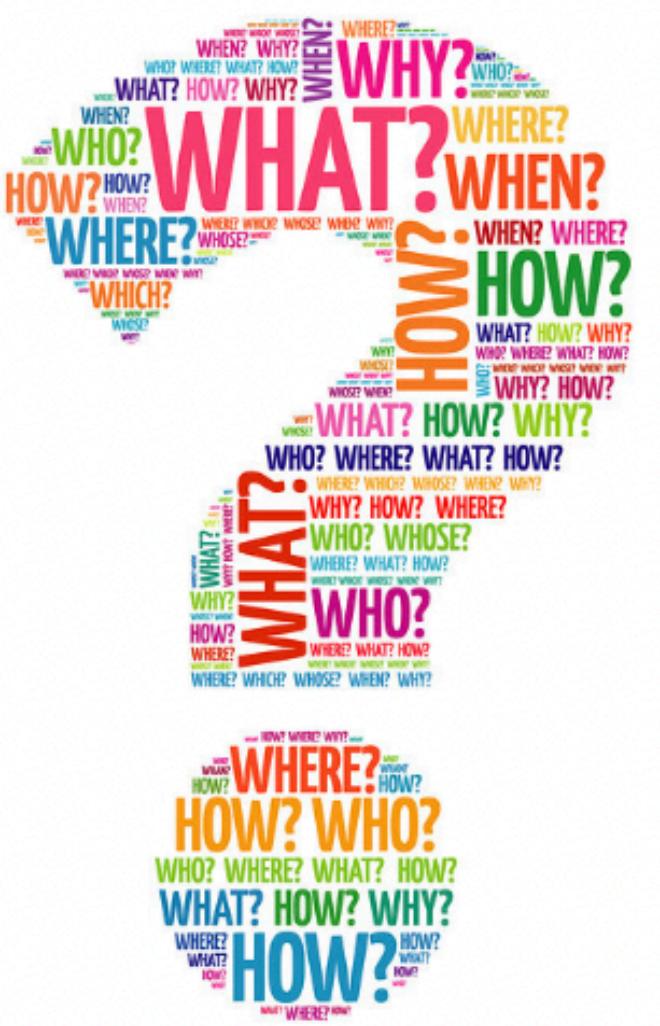
Challenges: Collaborating in a diverse team of six with varying educational backgrounds, aligning on a single process flow and holistic system view.

Learning: Enhanced understanding of software design principles, standard notation usage, and aligning diagrams with business module requirements for clearer communication and design documentation.

Demo



Questions





Thank you!