FLIPFIT

TOGETHER, WE DARE TO MAXIMISE.

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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 tranformation based on UML and technologies
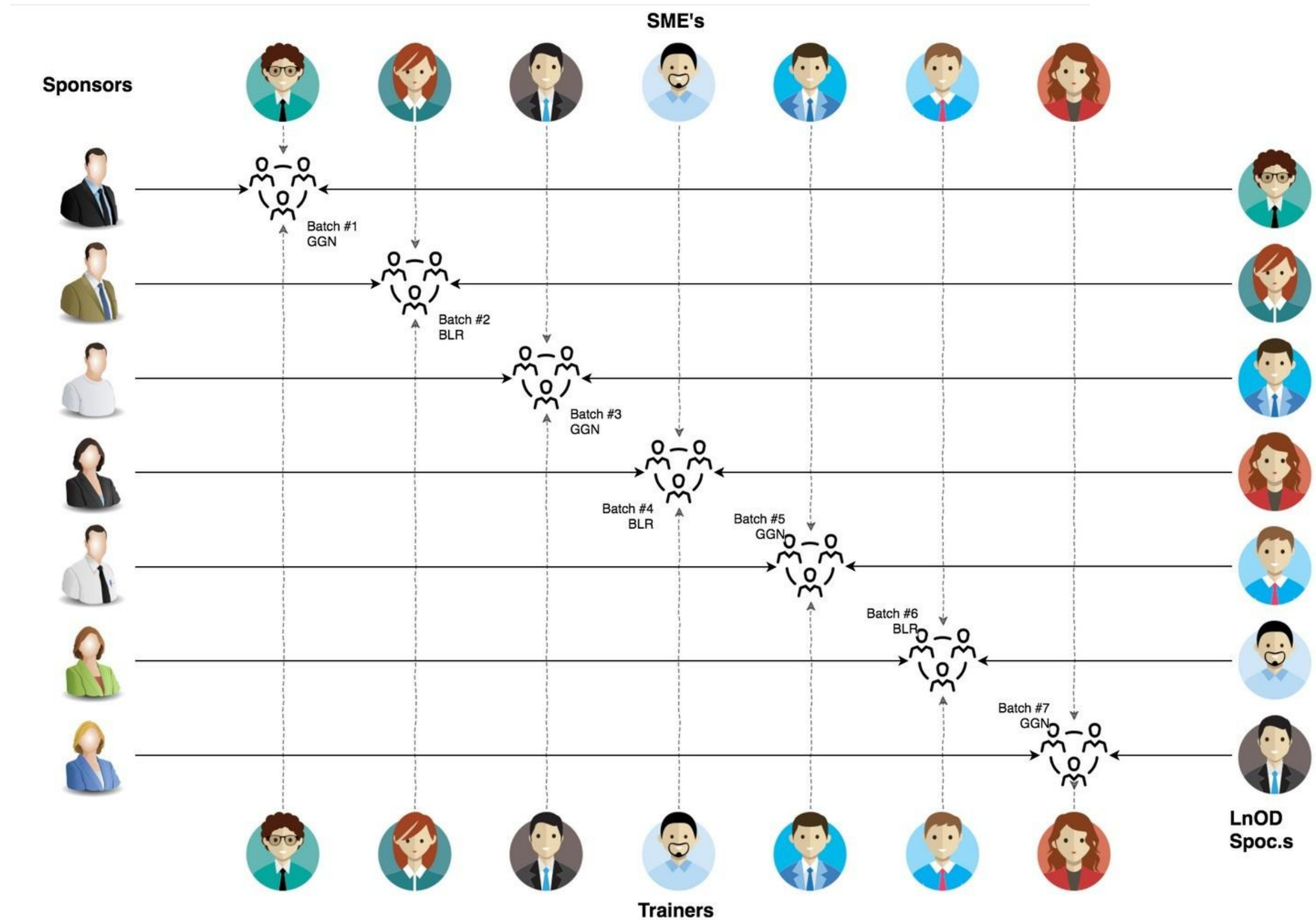
Stakeholders

1. Sponsors
   1. Flipkart

2. SME Trainer
   1. Mr Amit Balyan

3. Project Coordinator
   1. Ms Raksha Dubey

1 Week of Training + Project demo

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6 DAYS

144 HOURS

8640 MINUTES

518400 SECONDS

Limitless knowledge

Agenda

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Our
Journey

Project
Demo

Adapting to a
developer Mindset

Design Thinking

Decide the Technologies
JAVA, DropWizard, MySQL

Understanding Project
Goals

Our Team

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Himanshu Mathur - Team Leader

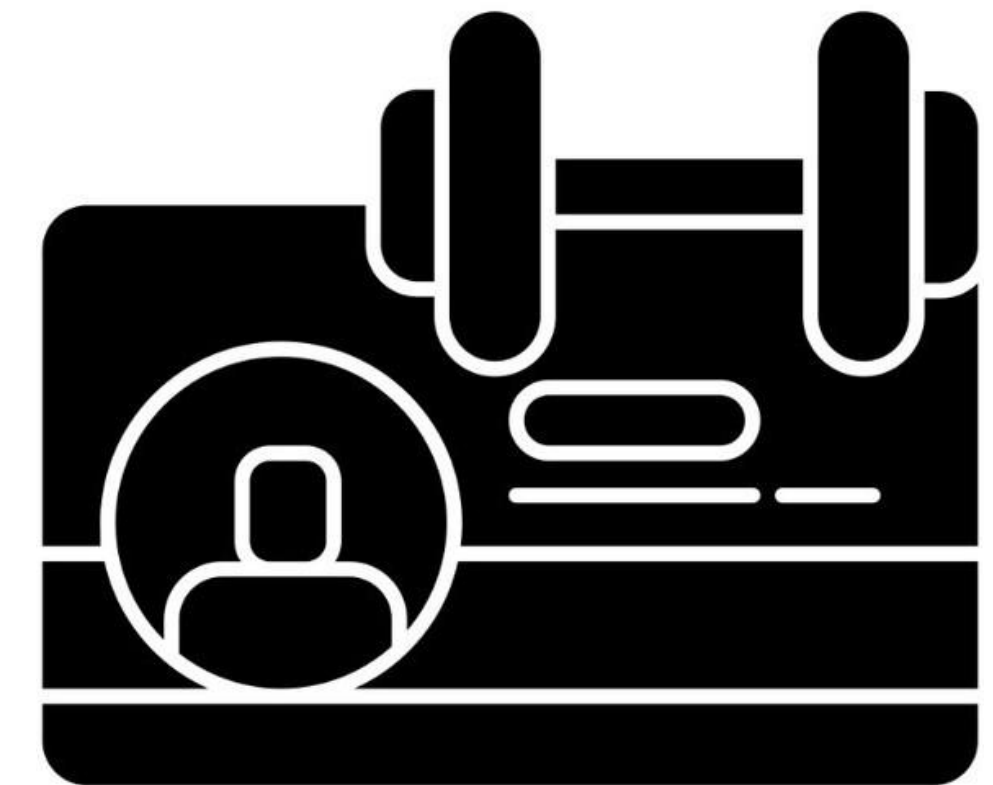**Sanchit Garg**   **Princhi Pawan Saikia**   **Saral Shikhar**

Voodem Praneeth Reddy   **Priyanka Agarwal**   **Sakshi Warandani**

Project Goals

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

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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 and its applications in web technologies.

Engineering Practices

1. Version Control (Git/GitHub): Used Git for version control, feature branching, and regular commits.
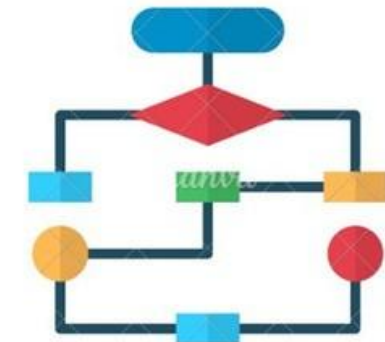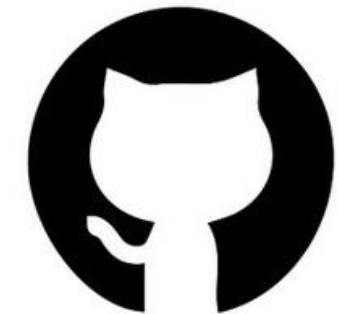
- Benefits: Facilitates collaboration, tracks changes, and enables easy rollback.

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.

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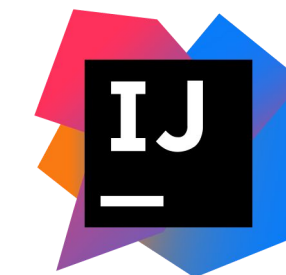
- Benefits: promotes knowledge sharing, and serves as a reference for future development and maintenance.
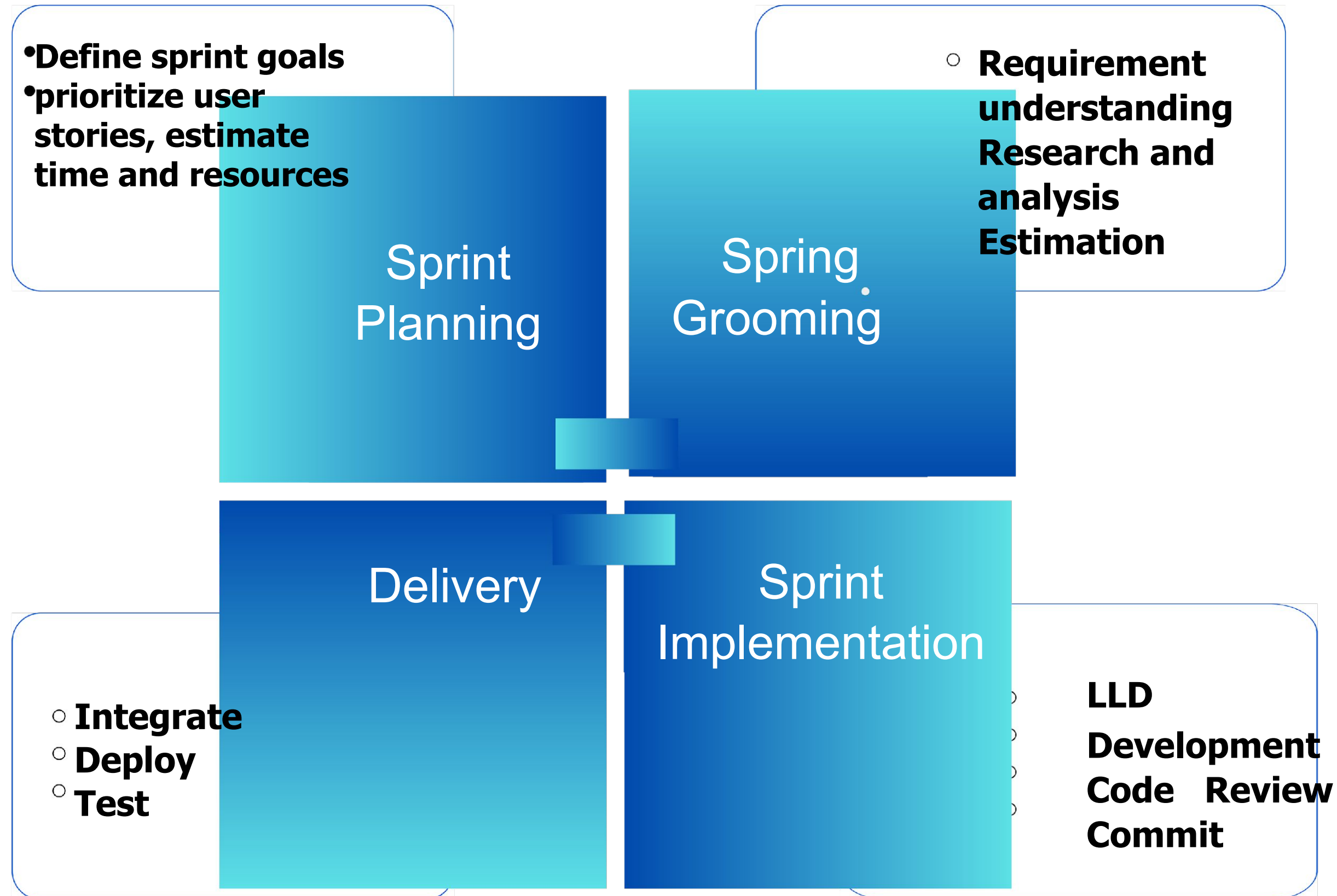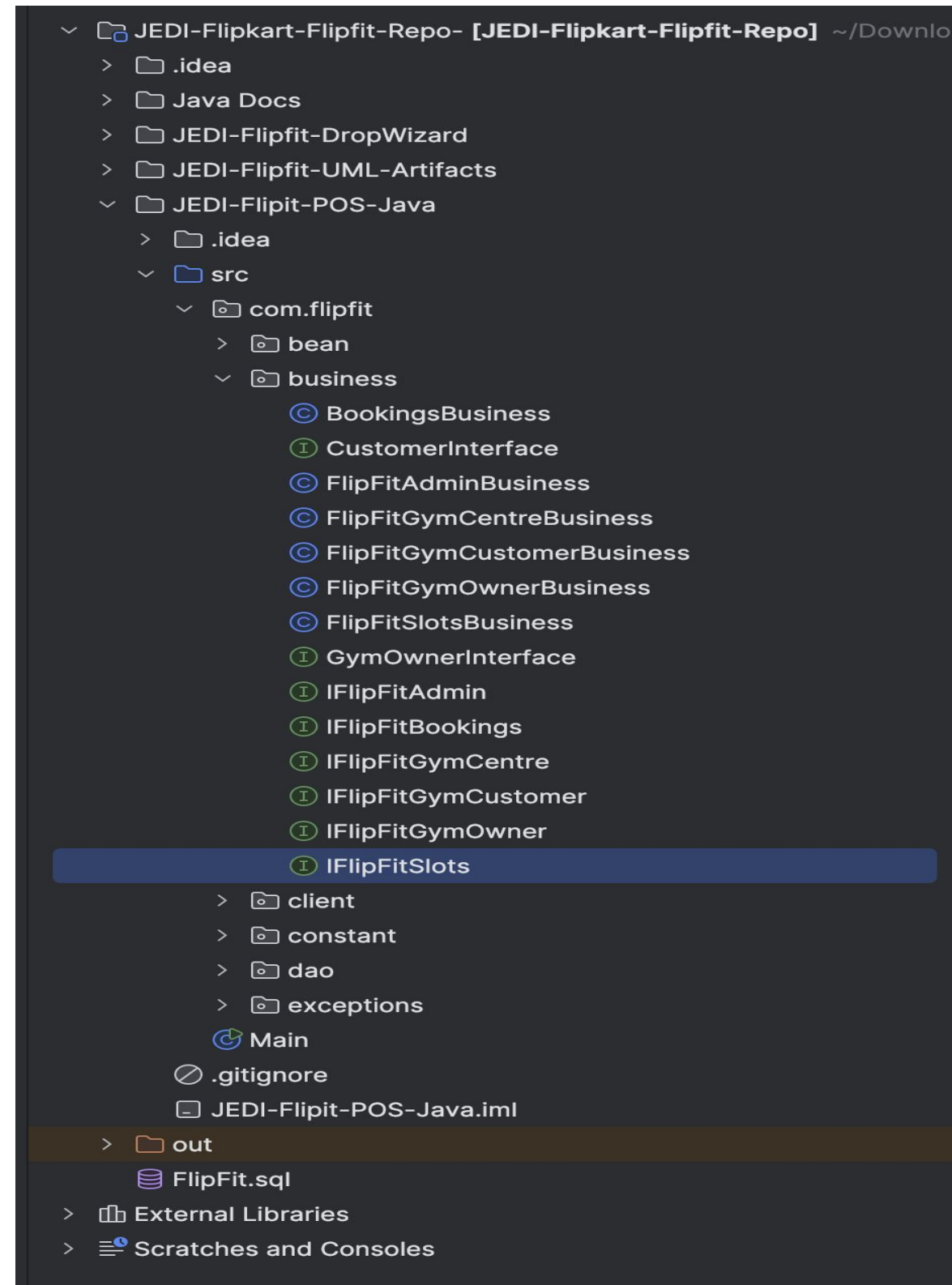
TechStack

Backend	Data	Tools

Java

MySQL

GitHub

Dropwizard

IJ

POSTMAN

Development

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- **Define sprint goals**
- **prioritize user stories, estimate time and resources**

○ **Requirement understanding Research and analysis Estimation**

Sprint Planning

Spring Grooming

Delivery

Sprint Implementation

○ **Integrate**
○ **Deploy**
○ **Test**

LLD Development Code Review Commit
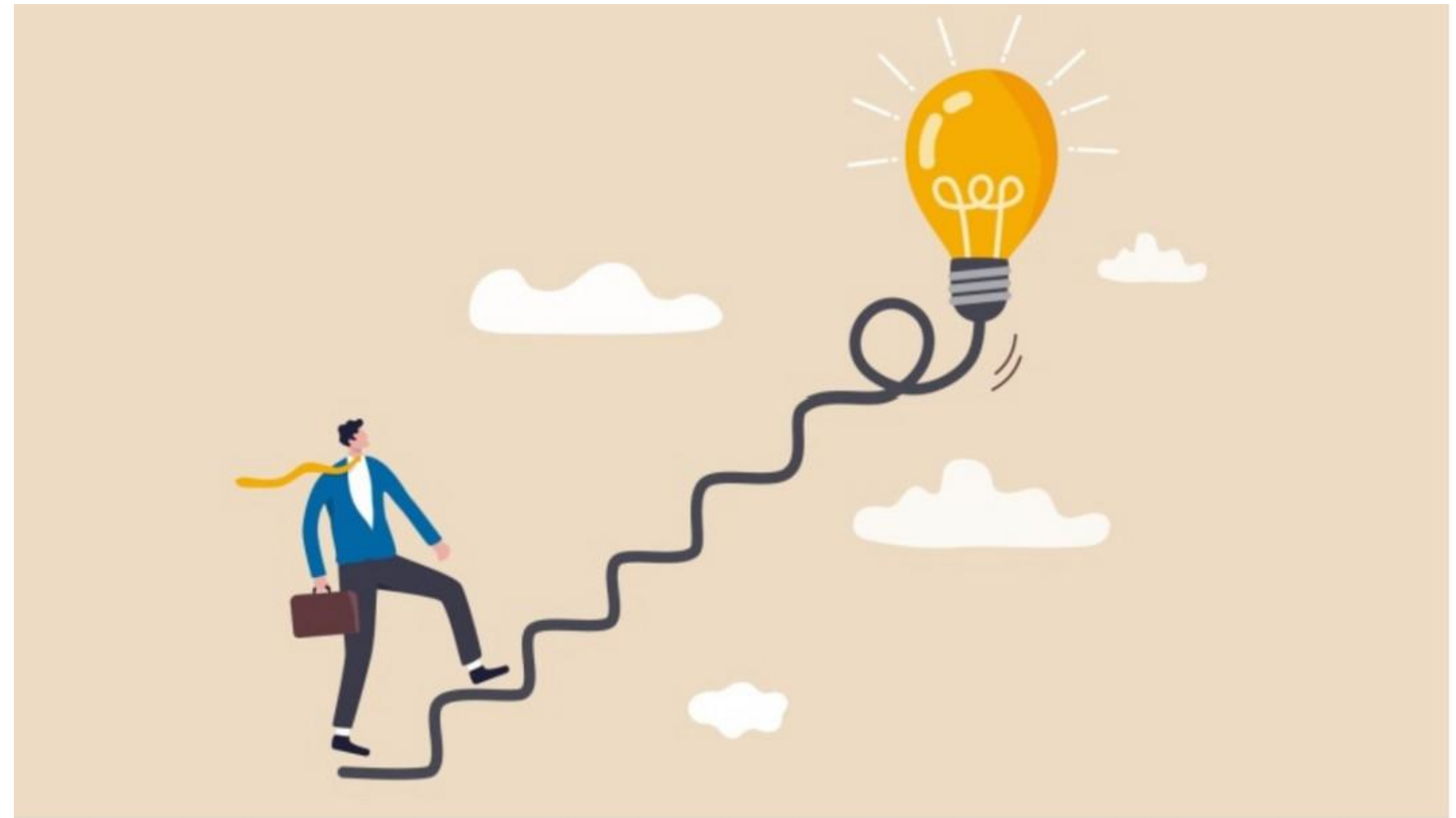
Project Structure

How did we write code?

- Bottom-up code
- Vertical responsibilities

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What we did well

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

Challenges
&
Learnings

UML Diagram - LLD Structure

Learning:

- Enhanced understanding of software design principles, standard notation usage
- Clear Communication
- Aligning diagrams with business module requirements
- Overview Java Language
- Working with DropWizard to creat REST application
- Improved learning of Git/Github
- Debugged together

Challenges:

- Collaborating in a diverse team of seven with varying educational backgrounds, aligning on a single process flow and holistic system view.
- Configuring MySQL
- Achieving tight deadlines

Demo

Questions

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Thank you!