

FLIPKART

JEDI BOOTCAMP PROJECT

TEAM IRIS

AGENDA

1. Project Goals
2. Our Vision
3. Our Journey
4. Our Team
5. Engineering Practices
6. Tech Stack
7. Development Lifecycle
8. Challenges & Learnings
9. Demo
10. Questions

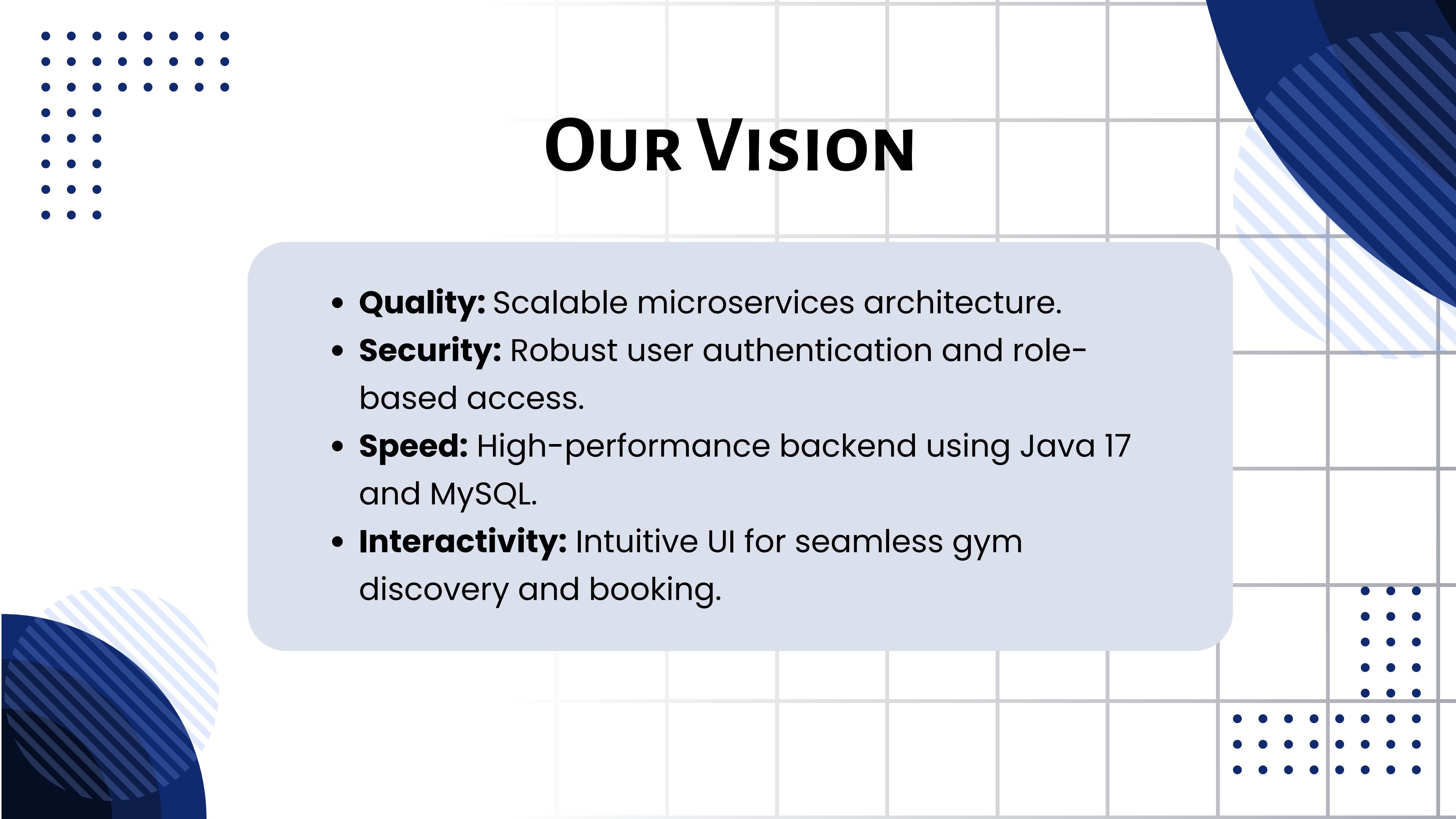
THE ASK

Problem Statement:

Design a system for "FlipFit," an enterprise fitness application for Flipkart.

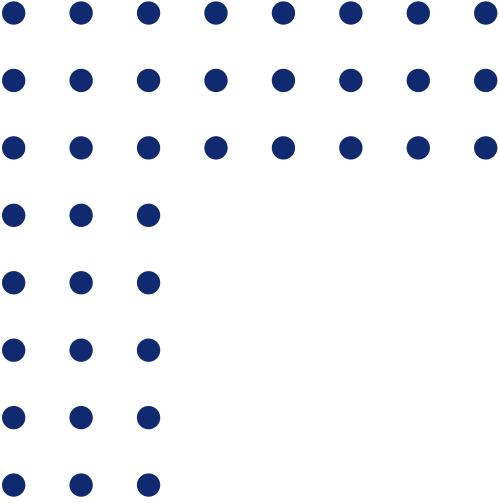
Key Requirements:

- Partnering with gyms across Bangalore.
- Manage multiple centers with fixed hourly slots (n slots/day).
- Fixed seat capacity per slot.
- Operations: User registration, view availability, book workouts.



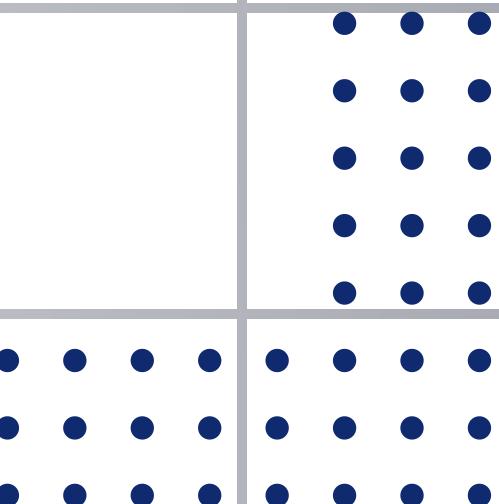
OUR VISION

- **Quality:** Scalable microservices architecture.
- **Security:** Robust user authentication and role-based access.
- **Speed:** High-performance backend using Java 17 and MySQL.
- **Interactivity:** Intuitive UI for seamless gym discovery and booking.



OUR TEAM



- Sakshi Hingane (Group Lead)
 - Nandini Gupta (Sub Group Leader)
 - Aditya Hansraj
 - Akshat Kumar Nayak
 - Biraj Sanghai
 - Deepkumar Patel
 - Diya Kailash
 - Ishan Datta
 - Mohim Mahajan
 - Pranav Bhutada
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OUR JOURNEY

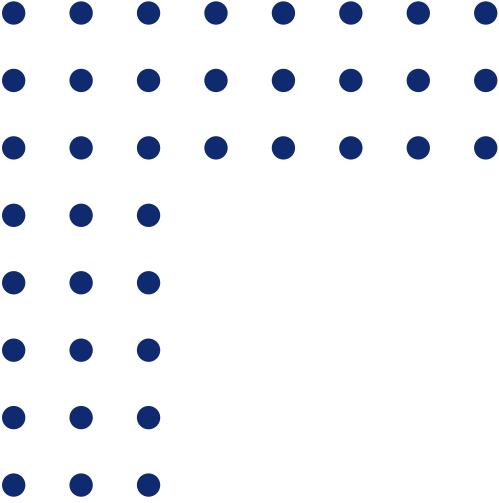
Phase 1: Lab Setup & Git Lifecycle
Configuration of Java 17, MySQL, STS/IntelliJ, and Maven.

Phase 2: Design Thinking
Creating UML Artifacts (Use Case, Activity, and Class Diagrams).

Phase 3: Java Development (POS Phase)
Implementing core logic with Collections (List/Map/Set) for hardcoded data.

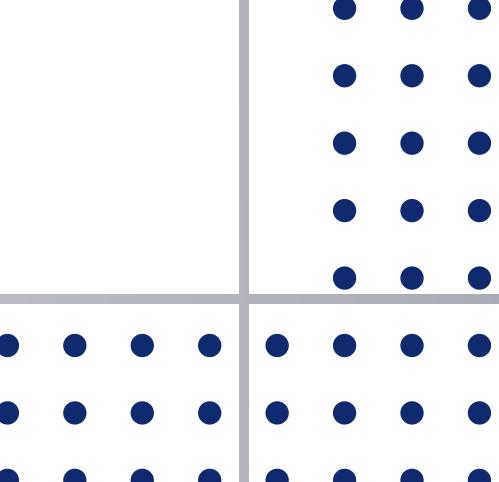
Phase 4: Persistence & Database
MySQL Schema design and JDBC (DAO) implementation with Prepared Statements.

Phase 5: Advanced Features & Web API
Exception handling, Java 8+ features (Streams/Lambda), and Dropwizard integration.



ENGINEERING PRACTICES



- **Agile Methodology:** Sprint planning, grooming, and implementation.
 - **TDD (Test Driven Development):** Ensuring code reliability.
 - **SDLC Excellence:** Git commits with PR reviews and Confluence documentation.
 - **Static Analysis:** Sonar analysis for code quality.
 - **Observability:** Metrics and logs emitted from the code.
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TECH STACK

- **Backend:** Java 17, Dropwizard.
- **Database:** MySQL (JDBC for connectivity).
- **Tools:** Maven, Git (SCM), JIRA (Story Management).
- **Frontend/UI:** Figma for design, full-stack integration on FK platform.
- **Infrastructure:** Microservices architecture.

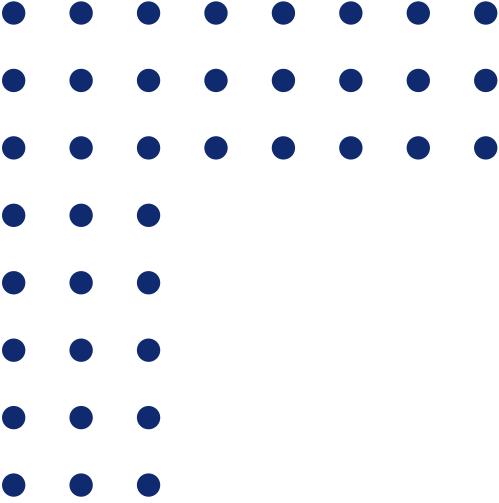
DEVELOPMENT & DESIGN

UML Artifacts:

- **Use Case:** Identify Actors (Admin, Customer, Gym Owner).
- **Activity:** Flow of booking and slot management.
- **Class Diagram:** Relationship between User, Role, Center, Slot, and Booking.

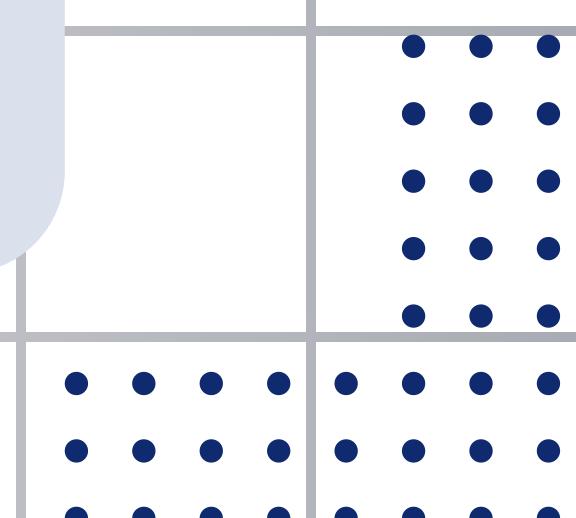
Key Modules:

- `com.flipfit.dao`: Data Access Layer.
- `com.flipfit.service`: Business Logic with Stream API.
- `com.flipfit.exception`: Custom error handling (e.g. `UserNotFoundException`)



CHALLENGES & LEARNINGS



- **Concurrency:** Handling real-time slot availability to prevent overbooking.
 - **Transitioning:** Moving from Collections-based storage to persistent MySQL storage.
 - **New Tech:** Implementing Dropwizard and JAX-RS annotations for RESTful services.
 - **Collaboration:** Working as a 10-member team on a shared Git repository (JEDI-IRIS-DEVELOPMENT-FLIPKART).
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DEMO

Live Walkthrough:

- User Login and Session Time logging.
- Filtering Gym Owners (Approved vs. Not Approved) using Stream API.
- The booking flow and "Bonus Stories" (Waitlist promotion/Cancellation).

**ANY
QUESTIONS?**

THANK YOU