



IndiaRide – Vehicle Rental System

Presented by: Aditya Singh (RA2211030010034)

Priyanshu Singh (RA2211030010036)

Introduction to IndiaRide

What is IndiaRide?

A web platform connecting vehicle owners with renters.

Seamless bookings, flexible rentals, secure transactions.

Why is it needed?

Traditional rental systems lack security, availability, and efficiency.

No unified system benefiting both renters and owners.

Agile Methodology Overview

1

What is Agile?

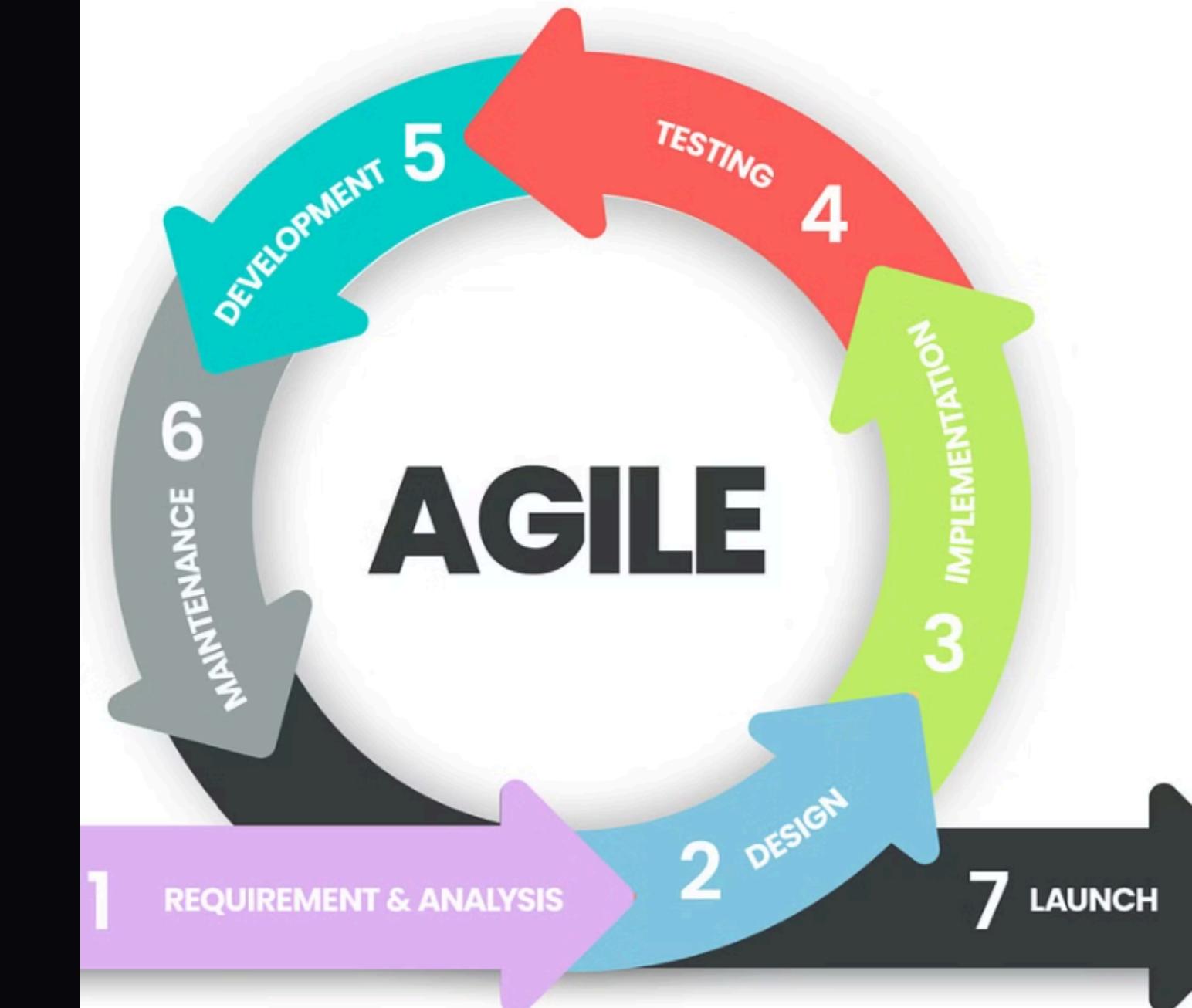
Iterative development approach focused on flexibility and collaboration.

2

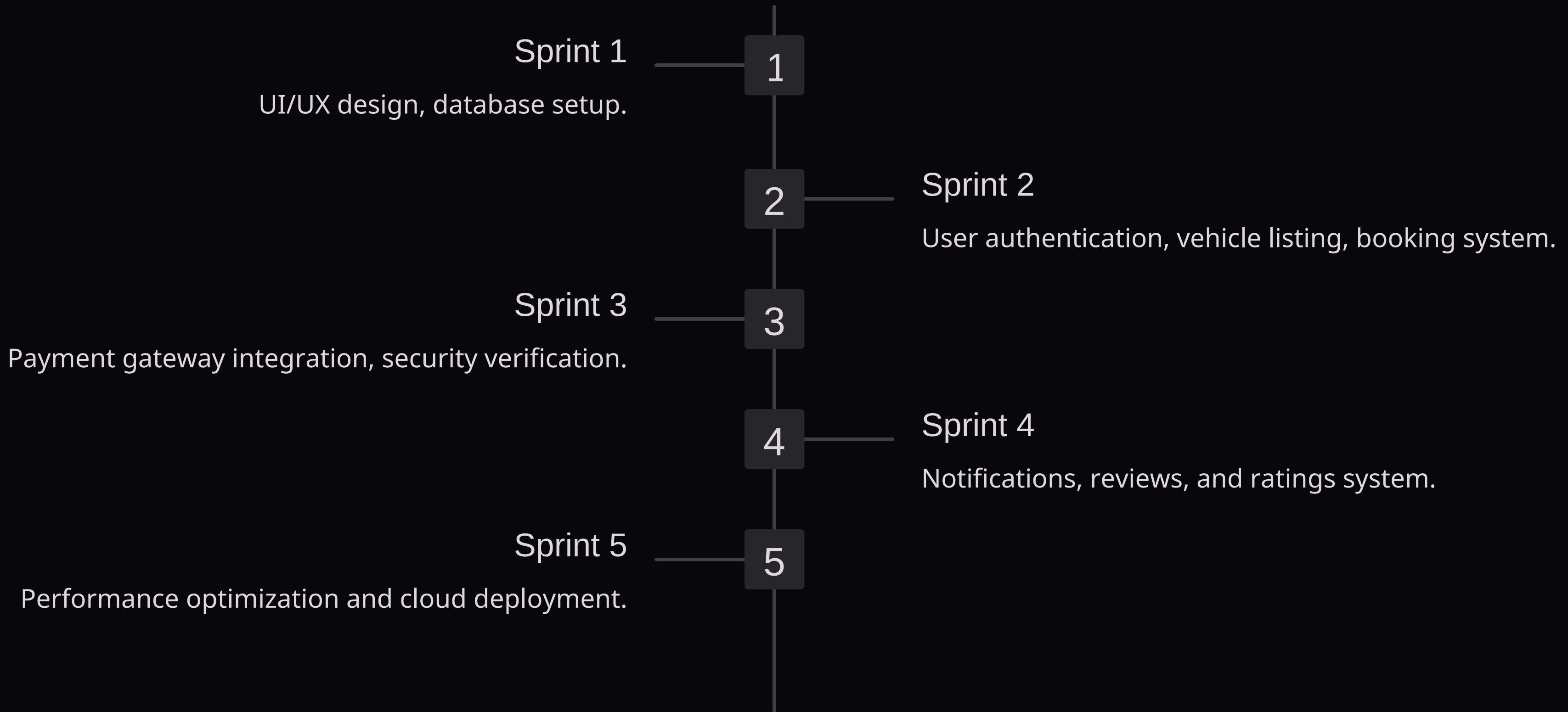
Why Agile for IndiaRide?

Enables quick adaptation to changing user needs.

Continuous improvements through sprint-based development.



Agile Development Process





User Stories & Requirements Gathering

Renter Story

Browse available vehicles near my location to make quick bookings.

Owner Story

Secure system to verify renters before confirming bookings.

Admin Story

Monitor transactions to ensure fraud prevention.

System Architecture & Technology Stack

Microservices Architecture

Backend: Django, Frontend: HTML, CSS, JavaScript.

Database: PostgreSQL/MySQL & MongoDB, Deployment:
AWS/Azure with Docker & Kubernetes.

Event-Driven Approach

Kafka/RabbitMQ for instant notifications and booking
updates.



Sprint Execution & Collaboration



Daily Standups for progress updates and blockers.



Sprint Reviews to showcase completed features for feedback.



Retrospectives for reflecting on past sprints and continuous improvement.



Challenges & How Agile Helped

1

Challenge 1

Evolving user requirements and security concerns.

2

Challenge 2

Ensuring a scalable architecture for high demand.

3

Challenge 3

Managing payment integration and real-time booking without lag.

4

Agile Solution

Frequent iterations allowed feature adjustments based on feedback.

Incremental development reduced risks and improved system stability.

Sprint retrospectives helped refine the process continuously.

Final Deliverables & Future Scope

1

Current Status

Fully functional web application.

Scalable backend with microservices architecture.

Integrated authentication, notifications, and real-time tracking.

2

Future Enhancements

AI-driven dynamic pricing and demand forecasting.

Expansion to EV rentals and sustainable mobility solutions.

Development of a mobile app for seamless rentals on the

Thank You

We're proud of the IndiaRide project and its potential impact.

We welcome questions and discussions regarding our vision for future growth.

