

## SDLC CASE STUDY: ONLINE FOOD DELIVERY SYSTEM (FOODEXPRESS)

### Introduction

This case study analyzes how the Software Development Life Cycle (SDLC) was applied in developing a web-based Online Food Delivery System. Each SDLC phase contributed to the success of the final product.

#### 1. Requirement Gathering

Objective: Understand expectations of users, restaurants, and delivery partners.

Activities: Interviews, surveys, workflow analysis.

Outcome: A detailed Software Requirements Specification (SRS).

#### 2. Design Phase

Objective: Convert requirements into architecture.

Activities: High-Level and Low-Level Design, database schema, UI wireframes.

Outcome: Blueprint for development.

#### 3. Implementation Phase

Objective: Develop functional software.

Activities: API development, frontend UI coding, payment gateway integration.

Outcome: Working system supporting login, restaurant browsing, order placement, payments, and tracking.

#### 4. Testing Phase

Objective: Ensure quality and reliability.

Types: Unit, Integration, UI/UX, Load, and Security testing.

Outcome: Bugs resolved, stable release.

#### 5. Deployment Phase

Objective: Make system available to users.

Activities: Deployed backend on AWS, frontend on Vercel, database on RDS.

Outcome: Public access with monitoring.

## 6. Maintenance Phase

Objective: Maintain and enhance system.

Activities: Bug fixes, new features, security patches.

Outcome: System remained stable and competitive.

## Conclusion

The project succeeded because every SDLC phase was executed properly, ensuring clarity, quality, performance, and long-term reliability.