**Case Study 2:**

**Testing an Online Food Delivery Application (OFDA)**

**1. Background:**

A startup company has developed an **Online Food Delivery Application (OFDA)**, similar to Swiggy or UberEats.  
The application allows users to:

* Search and browse nearby restaurants.
* Order food items.
* Make online payments securely.
* Track the real-time status of deliveries.

The system supports **different user roles**:

* **Customer** (places orders)
* **Delivery Partner** (delivers orders)
* **Restaurant Owner** (manages menu)
* **Admin** (manages the platform)

**2. Problem Statement:**

Before launching the OFDA, the company needs to perform **extensive software testing** to ensure:

* The application is functional, fast, and secure.
* Users experience smooth ordering and delivery processes.

You are hired as the **Software Test Manager** to:

* Define clear **objectives** for testing.
* Propose suitable **testing strategies**.
* Classify the different **types of testing** needed.

**3. Testing Scope:**

**A. Definition and Objectives:**

The main goals of software testing for OFDA are:

* Ensure **functional correctness** (order placement, payment success).
* Maintain **security** of transactions and user data.
* Verify the app’s **performance under high traffic** (e.g., during lunch/dinner rush).
* Detect and fix **defects early** to avoid customer complaints.

**B. Testing Strategies:**

You are expected to apply:

* **Static Testing**: Code reviews, requirement document inspections, walkthroughs.
* **Dynamic Testing**: Executing the app to find runtime errors.
* **Verification Activities**: Checking if the product is built correctly (e.g., correct database structure).
* **Validation Activities**: Ensuring the right product is built for the users (e.g., placing a food order).

Testing must be conducted at all levels:

* **Unit Testing** (individual modules like payment gateway).
* **Integration Testing** (order + payment + delivery flow).
* **System Testing** (entire app functionality together).
* **Acceptance Testing** (real users testing the app).

**C. Test Classifications:**

Testing will be classified as:

* **Functional Testing**: Testing order placement, payment flow, offers, etc.
* **Non-Functional Testing**: Testing app performance (speed), security (data protection), usability (user-friendliness).
* **Regression Testing**: Testing the app after new features (e.g., discounts/coupons) are added.
* **Acceptance Testing**: Final approval by end-users (User Acceptance Testing - UAT).

**4. Challenges:**

* **Performance Issues**: App must handle high user load during promotions and peak hours.
* **Security Concerns**: Protect user credit card information and login credentials.
* **Integration Problems**: Smooth coordination among restaurants, delivery partners, and payment systems.

**5. Your Role as Test Manager:**

* Define **testing objectives** clearly.
* Choose appropriate **testing strategies** based on project needs.
* Categorize tests logically under **different types**.
* Prepare a professional **Testing Plan** and **Strategy Document**.