



# BAHRIA UNIVERSITY (KARACHI CAMPUS)

Open Ended Lab 1 – SPRING SEMESTER – 2023

## (Software Design and Architecture - SEL457)

Class: **BSE 4A/B**

(Morning)

Course Instructor: **Engr Majid Kaleem**

Lab Instructor: **Engr Muhammad Rehan Baig**

Student's Name: \_\_\_\_\_

Reg. No: \_\_\_\_\_

**Note:** Note: Probability of similarity is 0% copied and similar solutions will be marked as zero

### **SCENERIO:**

StoreJinnie is an online store is looking to implement a new system to manage their inventory, orders, and shipping processes.

Following are the main Modules of this system.

- Authentication/Authorization
- User Management: The system will have multiple roles for users. Super admin can manage all other users.
- Inventory management: The system will keep track of the store's inventory, including the quantity of each item, location in the warehouse, and restocking notifications. When a new order is received, the system will automatically update the inventory and notify the warehouse manager of any items that need to be restocked.
- Order management: The system will manage customer orders, including payment processing, order confirmation, and order fulfillment. The system will automatically notify the customer of their order confirmation and shipment tracking number.
- Shipping management: The system will manage the shipping process, including selecting the best shipping carrier based on price and delivery time, generating shipping labels, and tracking shipments. The system will automatically update the customer of the shipping status and any delays.
- Reporting and analytics: The system will provide detailed reporting and analytics on sales, inventory levels, and order fulfillment performance. The system will allow the store owner to make data-driven decisions to improve their business operations.

**Q1 Design** Data flow Diagram, Class Diagram and ERD diagram for the given Scenario.

**Q2 Identify and Implement** best suited design patterns for the given scenario with Reasons  
(Note: Multiple Design patterns can be implemented)

**Q3. Design** UI for the system.

\*\*\*\*\* BEST OF LUCK \*\*\*\*\*