



COMSATS University Islamabad, Lahore Campus

Mid Term, Examination – Spring 2024

Course Title:	Mobile App Development				Course Code:	CSC303	Credit	3(2,1)
Course Instructor/s:	Rana M. Ajmal				Programme Name:	BSCS SP23		
Semester:	5	Batch:	Elective	Section:	A, B, C, D	Date:	Apr 9, 2025	
Time Allowed:	1.5 Hour				Maximum Marks:	25		
Student's Name:					Reg. No.			
<u>Important Instructions / Guidelines:</u> Please implement functionality that is asked, do not do any extra work. Present your work with good UI.								

Community Farmers Market App - Problem Description

Background

The local farmers market association in your city manages 30+ vendors who sell various products including fresh produce, baked goods, crafts, and prepared foods. They need a simple mobile application to help market organizers quickly view and update product availability information during market hours.

Problem Statement

The farmers market needs a mobile application that will:

1. Display all products available at the market
2. Allow filtering products by vendor
3. Provide a way to quickly update product availability (in-stock/out-of-stock)

Requirements

Functional Requirements

1. Import product and vendor data from a provided JSON file

2. Display all products in a simple list, with each product card showing the vendor name
3. Implement a vendor filter in the top row to show products from selected vendors only
4. Add a toggle button on each product card to quickly mark items as in-stock/out-of-stock
5. Update the UI to reflect the current stock status of products

Technical Requirements

1. Create a single-screen prototype divided into reusable components
2. Implement proper state management for filtering and stock updates
3. Design a responsive and user-friendly interface
4. Include appropriate visual indicators for stock status

Evaluation Criteria

- Proper implementation of product display and filtering (10 Credits) – CSLO1
- Correct implementation of stock toggling functionality (7 Credits) – CLO4
- UI/UX design and usability (5 Credits) – CLO1, CLO2
- Code quality and organization (3 Credits) – CLO4

Sample Data

```
// data.json
{
  "vendors": [
    { "id": "v1", "name": "Green Valley Farm", "location": "Section A", "category": "Produce" },
    { "id": "v2", "name": "Sunshine Bakery", "location": "Section B", "category": "Baked Goods" },
    { "id": "v3", "name": "Ocean Fresh Seafood", "location": "Section C", "category": "Seafood" }
  ],
```

```
"products": [  
  { "id": "p1", "vendorId": "v1", "name": "Organic Apples", "price": 3.99, "quantity": 50, "inStock":  
true, "category": "Fruit" },  
  { "id": "p2", "vendorId": "v1", "name": "Fresh Kale", "price": 2.50, "quantity": 30, "inStock": true,  
"category": "Vegetable" },  
  { "id": "p3", "vendorId": "v2", "name": "Sourdough Bread", "price": 5.99, "quantity": 15, "inStock":  
true, "category": "Bread" },  
  { "id": "p4", "vendorId": "v2", "name": "Cinnamon Rolls", "price": 4.50, "quantity": 0, "inStock":  
false, "category": "Pastry" },  
  { "id": "p5", "vendorId": "v3", "name": "Wild Salmon", "price": 12.99, "quantity": 10, "inStock":  
true, "category": "Fish" }  
]  
}
```