Project Examination for September – December 2025 Semester

Course Code	NW 201
Course Name	MOBILE APPLICATION PROGRAMMING
Programme(s)	BSC, BIST
School(s)	SCHOOL OF COMPUTING & ENGINEERING
Year of Study	3

Year of Study	3	**Semester**	1
Examination Date	Thursday 18th December 2025		
Starting Time	14:00HRS	**Ending Time**	17:00HRS

Instructions:

1. Choose one project domain.
2. Follow instructions below as instructed.
3. Use Kotlin Programming Language to develop your application.
4. Record a short video to show how your app works.
5. Prepare a presentation to present your application.

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PROJECT SCENARIO

The rapid growth of mobile technology has created opportunities for businesses to enhance their operations, customer engagement, and service delivery. You are tasked to identify a real-world business problem and develop a comprehensive mobile application using Kotlin Programming Language with Android Studio that provides an innovative digital solution. The application should leverage database technology i.e., SQLite to store, manage, and retrieve business data efficiently.

PROJECT REQUIREMENTS

A. BUSINESS DOMAIN SELECTION (10 Marks)

Choose ONE of the following business domains or propose your own:

1. E-commerce Store
2. Fitness/Gym Management
3. Hotel Booking System
4. Local Service Marketplace
5. Educational Learning Platform
6. Healthcare Appointment System
7. Inventory Management System
8. Dairy Flow App
9. Pharmacy App
10. HIV management App
11. Bible App
12. Any other of your choice

B. CORE FUNCTIONALITIES (40 Marks)

Your application MUST include the following minimum features:

1. User Authentication System (10 Marks)

    i.   User registration and login functionality

    ii.   Password security

    iii.   User profile management

2. Database Integration (15 Marks)

    i.   Implement a local database (SQLite or Firebase Database)

    ii.   Minimum of 4 tables

    iii.   CRUD operations (Create, Read, Update, Delete) for all major entities

    iv.   Data validation and error handling

3. Business-Specific Features (15 Marks)

    i.   Minimum of 3 core business operations

    ii.   Example: For restaurant app - menu browsing, order placement, order tracking

    iii.   Example: For e-commerce - product catalog, shopping cart, checkout process

C. TECHNICAL REQUIREMENTS (40 Marks)

1. User Interface (20 Marks)

    i.   Intuitive and user-friendly design

    ii.   Menu and Dashboard setup

    iii.   Consistent color scheme and branding

    iv.   Responsive layout for different screen sizes

    v.   Minimum of 4 different screens/activities

2. Application Architecture (10 Marks)

    i.   Proper separation of concerns (MVC, MVVM, or Clean Architecture)

    ii.   Efficient data handling and state management

    iii.   Code reusability and modularity

3. Performance & Usability (10 Marks)

  i. Fast loading times and smooth navigation

  ii. Proper error handling and user feedback

  iii. Offline capability (where applicable)

  iv. Efficient memory management

D. DOCUMENTATION (10 Marks)

 i. Demo Video (A short video recording while navigating your app)

 ii. Brief project report

END