LESSON PLAN

Mobile Application Development

Instructor Name	Vikas Singh Rajput
Session	Jan – Jun 2025
Semester	6th
Total Teaching Hours	40 Hours

Unit–1.0: Android OS Concepts

Lecture No.	Unit No.	Topic to be Covered
1	1.1	Overview of Android – An Open Platform for Mobile Development
2	1.2	Android Versions, Code Names and API
3	1.3	Android Applications
4	1.4	Features and Marketplaces of Android
5	1.5	Android Development Environment Setup
6	1.6	Android Development Framework – Android SDK, Eclipse, Emulator / Android AVD
7	1.7	Platform Architecture of Android and Component Level of Android Software Stack

Unit–2.0: Android Activity & UI Design

Lecture No.	Unit No.	Topic to be Covered
1	2.1	Application Components – Intent
2	2.2	Activity
3	2.2.1	Introduction
4	2.2.2	Activity Life Cycle
5	2.2.3	Activity State Change
6	2.3	Broadcast Receivers
7	2.4	Services and Manifest
8	2.5	Create Application and New Activities

9	2.6	Expressions and Flow Control
10	2.7	Fundamental Android UI Design
11	2.8	UI Layouts and Layout Properties
12	2.8.1	Introducing Layouts
13	2.8.2	Creating New Layouts
14	2.8.3	Drawable Resources

Unit–3.0: Advanced UI Programming

Lecture No.	Unit No.	Topic to be Covered
1	3.1	Introduction to GUI Objects
2	3.2	Supporting Multiple Screen Activities
3	3.3	Application Context
4	3.4	Intent WebView
5	3.5	Event Driven Programming in Android (Text, Edit, Button Click etc.)
6	3.6	Creating a Splash Screen
7	3.7	Introduction to Threads in Android

Unit–4.0: Toast, Menu, Dialog, List and Adapters

Lecture No.	Unit No.	Topic to be Covered
1	4.1	Menu: Custom vs System Menus
2	4.2	Creating and Using Handset Menu Button Hardware
3	4.3	Android Themes, Dialog, Create and Alter Dialog
4	4.4	Toast in Android, List and Adapters
5	4.5	AndroidManifest.xml File
6	4.6	Handle Location Based Services
7	4.7	Developer Interfaces
8	4.8	Create Android Projects Based on Above Tools

Unit–5.0: Database and Security in Android

Lecture No.	Unit No.	Topic to be Covered
1	5.1	Understand Handling of Data in Android Application
2	5.2	Messaging and Networking in Android
3	5.3	Developing Android Services
4	5.4	Learn the Concept of Object Oriented Database
5	5.4.1	Database (SQLite DB)
6	5.4.2	Open and Close a Database
7	5.4.3	Creation of .apk Files
8	5.4.4	File Shared Preferences
9	5.5	Learn How to Secure Android Applications
10	5.6	Learn the Concept of Debugging Methodologies and Re-testing Process
11	5.8	Learn the Concept of Compliance Process / Procedures and Tests for Hosting Applications at App Store
12	5.9	Learn about the Tools Used for Application Functional and Security Testing
13	5.10	Publishing Android Application