



**Faculty of Computer Science & IT
Department of Computer Science
University of Sahiwal**

Mobile Application Development (Final-Term)

Course Instructor:

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Week#	Lecture #	Topics Covered
9	17	Introduction
		Theory: Mobile Apps Scalability Location-aware Applications Lab: Location Permissions Latitudes + Longitudes Fused Location
	18	Services (cont.)
		Theory: Performance/Power Tradeoffs Lab: Foreground & Background Services Integration of Low Power Consumption Libraries
10	19	Services
		Theory: Mobile Platform Constraints Lab:
	20	SQLite Database (cont.)
		Theory: Android Studio SQLite Database Lab: Database Helper Class SQLiteOpenHelper DB Creation DB Browser for SQLite (Tool) Installation
11	21	SQLite Database (cont.)
		Theory: Database Operations Lab: CRUD Operations
	22	SQLite Database
		Theory: Note Taking App Lab: Project Creation DB Creation CRUD Operations Reuseability

Week#	Lecture #	Topics Covered
12	23	REST APIs Integration (cont.)
		Theory: REST APIs Introduction Lab: Postman Installation PHP Overview PHP API Development
	24	REST APIs Integration (cont.)
		Theory: REST APIs MySQL Database Lab: Database Connection with APIs Testing APIs Response
13	25	REST APIs Integration (cont.)
		Theory: Retrofit Lab: Retrofit Singleton Class API Interface
	26	REST APIs Integration (cont.)
		Theory: Retrofit Creation of a simple Dynamic App using Retrofit, MySQL Lab: CRUD Operations Exception Handling
14	27	REST APIs Integration (cont.)
		Theory: Dynamic App Lab: App Testing
	28	Emerging Technologies
		Theory: Emerging Technologies and its Applications IoT Apps
Developer Notes Checking		

Week#	Lecture #	Topics Covered
15	29	Semester Project
		Theory: Assigning Semester Project & Guidance
	30	Career Counselling
		Theory: How to start professional career as an Android Developer Q & A Session
16	31	Freelancing & Resume Creation
		Theory: Freelancing Forums & Know How Online Profile Creation
		Theory: LinkedIn Profile Importance GitHub Profile Importance
	32	FYP Ideas
		Theory: Discussions, Course Feedback, FYP Ideas
		Evaluation Assignment Evaluation Q & A Session Blind Review about Course Teaching Methodologies
Final Term Exams		

Recommended Study Material:

- Lecture Slides
- Developer Notes (Will be provided in lectures)
- YouTube (My Channel Link: <https://www.youtube.com/c/FacileSolutions>)
- <https://developer.android.com>

Module Objectives:

This is a totally practical course that includes proper labs. The main aim to take this course is to get a proper direction towards professional mobile app development. As

being a software developer, I'll try to link the software industry practices with theoretical work.

Learning Outcomes:

After 16 Weeks, students will be able to take proper guidance about professional android app development. They'll be able to understand the android studio project structure, project debugging, and linking of devices with Android Studio. Students will be aware of the user interfaces and user experience designs with their corresponding functionality, efficiency, reusability, and color psychology. Moreover, the students will take know-how about effective App Documentation with the help of assignments evaluations.

Assessment Criteria (Post Mids.):

- 2 Assignments
- 2 Quizzes
- Class Participation
- Q & A
- Class Attendance
- Laptop Checking
- Project Presentation (Demo Video/Local Server Demo + PPT + Reporting)

Paper Pattern:

- Total Marks: **50**
- Paper Mode: **Physical**
- MCQs (**10 x 1 = 10**)
- 5 Short Questions (**5 x 2 = 10**)
- 2 Theory Questions (**2 x 10 = 20**)
- 1 Lab Question (**1 x 10 = 10**)

Assessment FAQ Discussion:

This section is for all questions related to assessment/evaluation.

Question: What will be the mode of paper?

Answer: Physical

Question: How do I write code on my paper?

Answer: Your code must be neat and clean and properly indented. I will not ask for meta elements code etc.

Question: Is there any sample paper available?

Answer: Yes, I have uploaded sample papers on Google.

If things are not clear to you, you can also contact me by email.