

**20MCA243**

# **Mobile Application Development Lab**

*Lab Report Submitted By*

**ROSHAN GEORGE**

**AJC22MCA-2075**

*In Partial Fulfilment for the Award of the Degree of*

**MASTER OF COMPUTER APPLICATIONS**

**(MCA TWO YEAR)**

[Accredited by NBA]

**APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY**



**AMAL JYOTHI COLLEGE OF ENGINEERING**

**KANJIRAPPALLY**

[Affiliated to APJ Abdul Kalam Technological University, Kerala. Approved by AICTE,  
Accredited by NAAC. Koovappally, Kanjirappally, Kottayam, Kerala – 686518]

**2023-2024**

**DEPARTMENT OF COMPUTER APPLICATIONS**

**AMAL JYOTHI COLLEGE OF ENGINEERING**

**KANJIRAPPALLY**



**CERTIFICATE**

This is to certify that the lab report, “**20MCA243 – Mobile Application Development Lab**” is the bonafide work of **ROSHAN GEORGE (AJC22MCA-2075)** in partial fulfilment of the requirements for the award of the Degree of Master of Computer Applications under APJ Abdul Kalam Technological University during the year **2023-24**.

Ms. Ankitha Philp

**Lab In- Charge**

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**Head of the Department**

**Internal Examiner**

**External Examiner**

Course Code	Course Name	Syllabus Year	L-T-P-C
20MCA243	Mobile Application Development Lab	2020	0-1-3-2

### VISION

To promote an academic and research environment conducive for innovation centric technical education.

### MISSION

- MS1 - Provide foundations and advanced technical education in both theoretical and applied Computer Applications in-line with Industry demands.
- MS2 - Create highly skilled computer professionals capable of designing and innovating real life solutions.
- MS3 - Sustain an academic environment conducive to research and teaching focused to generate up-skilled professionals with ethical values.
- MS4 - Promote entrepreneurial initiatives and innovations capable of bridging and contributing with sustainable, socially relevant technology solutions.

### COURSE OUTCOME

CO	Outcome	Target
CO1	Design and develop user interfaces for mobile apps using basic building blocks, UI components and application structure using Emulator	60.1
CO2	Write simple programs and develop small applications using the concepts of UI design, layouts and preferences	60.1
CO3	Develop applications with multiple activities using intents, array adapter, exceptions and options menu.	60.1
CO4	Implement activities with dialogs, spinner, fragments and navigation drawer by applying themes	60.1
CO5	Develop mobile applications using SQLite.	60.1

### COURSE END SURVEY

CO	Survey Question	Answer Format
CO1	To what extent you are able to design and develop UI using Emulator	Excellent/Very Good/Good Satisfactory/Needs improvement
CO2	To what extent you understood concepts of layouts	Excellent/Very Good/Good Satisfactory/Needs improvement
CO3	To what extent you understood intents, exceptions and menus	Excellent/Very Good/Good Satisfactory/Needs improvement
CO4	To what extent you are able to implement activities applying themes	Excellent/Very Good/Good Satisfactory/Needs improvement
CO5	To what extent you understood to create applications with SQLite	Excellent/Very Good/Good Satisfactory/Needs improvement

## CONTENT

Sl. No.	Experiment	Date	CO	Page No.
1	Design a Login Form with username and password using LinearLayout and toast valid credentials.	24-08-2023	CO1	1
2	Write a program that demonstrates Activity Lifecycle.	07-09-2023	CO1	5
3	Implementing basic arithmetic operations of a simple calculator.	14-09-2023	CO1	9
4	Implement validations on various UI controls.	21-09-2023	CO1	15
5	Design a registration activity and store registration details in local memory of phone using Intents and Shared Preferences.	28-09-2023	CO2	19
6	Create a Facebook page using RelativeLayout; set properties using .xml file.	05-10-2023	CO2	23
7	Develop an application that toggles image using FrameLayout.	05-10-2023	CO2	29
8	Implement Adapters and perform exception handling.	12-10-2023	CO3	32
9	Implement Intent to navigate between multiple activities.	18-10-2023	CO3	35

<b>Sl. No.</b>	<b>Experiment</b>	<b>Date</b>	<b>CO</b>	<b>Page No.</b>
10	Develop application that works with explicit intents.	18-10-2023	CO3	38
11	Implement Options Menu to navigate to activities.	25-10-2023	CO3	42
12	Develop an application that uses ArrayAdapter with ListView.	25-10-2023	CO3	46
13	Develop an application that use GridView with images and display Alert box on selection.	25-10-2023	C04	49
14	Develop an application that implements Spinner component and perform event handling.	25-10-2023	C04	53
15	Develop application using Fragments.	09-11-2023	C04	56
16	Implement Navigation drawer.	09-11-2023	C04	59
17	Create database using SQLite and perform INSERT and SELECT.	16-11-2023	C05	63
18	Perform UPDATE and DELETE on SQLite database.	16-11-2023	C05	70

