FACULTY OF COMPUTER SCIENCE
Master of Computer Application (Integrated) (Sem-VI)
In Effect from Academic Year 2023-24

Branch Name:	IMCA
Program Code:	CS301
Course Name:	Mobile Computing-I Practical
Course Code:	1CS3010601P
Pre-requisite Course:	Knowledge of the Core Java Programming, database concepts, CSS, HTML

Course Objectives:

1. To understand the process of developing software for the mobile.
2. To be able to create mobile applications on the Android Platform.
3. To be able to create mobile applications involving data storage in SQLite database.
4. To be able to create mobile applications to call and message via Android APIs.
5. Learn to deploy the Android Application to the world via Play Store.

Teaching Scheme (Hours per week)				**Evaluation Scheme(Marks)**				
				Theory		**Practical**		
Lecture	**Tutorial**	**Practical**	**Credit**	**University Assessment**	**Continuous Assessment**	**University Assessment**	**Continuous Assessment**	**Total**
-	-	3	3	-	-	25	25	50

LAB/ Practical:

Note: The practical list provided is a part for reference only. The course t teacher may Change/formulate it as per his/her methodology and requirement.

Sr.No	**Practical Experiments**
1.	Create “Hello World” application. That will display “Hello World” in the middle of the screen in the Red color with white background.
2.	2.1 To understand Activity, Intent a. Create sample application with login module.(Check username and password) b. On successful login, go to next screen. And on failing login, alert user using Toast. c. Also pass username to next screen. 2.2Create login application where you will have to validate EmailID (UserName). Till the username and Password is not validated, login button should remain disabled. 2.3 Create and Login application as above. On successful login, open browser with any URL. 2.4 Create an application that will pass some number to the next screen , and on the next screen that number of items should be display in the list. 2.5 Understand resource folders : a. Create spinner with strings taken from resource folder (res >> value folder). b. On changing spinner value, change image. 2.6 Understand Menu option. a. Create an application that will change color of the screen, based on selected options from the menu. 2.7 Create an application that will display toast (Message) on specific interval of time. 2.8 Create an background application that will open activity on specific time.
3.	3.1 Create an application that will have spinner with list of animation names. On selecting animation name, that animation should affect on the images displayed below. 3.2 Understanding of UI : a. Create an UI such that, one screen have list of all the types of cars. b. On selecting of any car name, next screen should show Car details like : name , launched date , company name, images(using gallery) if available, show different colors in which it is available.

	3.3 Read messages from the mobile and display it on the screen.
4	4.1 Understanding content providers and permissions: a. Read phonebook contacts using content providers and display in list. 4.2 Create an application to call specific entered number by user in the Edit Text 4.3 Create an application that will create database with table of User credential. 4.4 Create an application to make Insert, update, Delete and retrieve operation on the database. 4.5 Create an application to send message between two emulators.

Text Books:

Lauren Darcey and Shane Conder, "Android Wireless Application Development", Pearson Education, 2nd ed. (2021).

Reference Books:

1. Reto Meier, "Professional Android 2 Application Development", Wiley India Pvt Ltd (2021).
2. Mark L Murphy, "Beginning Android", Wiley India Pvt Ltd(2022).
3. Sayed Y Hashimi and Satya Komatineni, "Pro Android", Wiley India Pvt Ltd(2021).

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand the importance of mobile application for solving real world problems	1 Remembering 2. Understanding 5. Evaluate
CLO2	Develop mobile applications using Android Platform.	6. Creating
CLO3	Understand the mechanism of database structure with Android Programming using SQLite Database.	2. Understanding ,5. Evaluate
CLO4	Install and configure Android Platform	2. Understanding , 6. Creating 3. Applying
CLO5	Explain and use key Android programming concepts	4.Analyze, 3. Applying
CLO6	Network Concept of Android application	6. Creating ,3.Applying

Mapping of CLOs with POs & PSOs

Course Learning Outcomes	Program Outcomes (POs)												Program Specific Outcomes(PSOs)	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO 11	PO 12	PSO1	PSO2
CLO1		H	H				M					M	H	H
CLO2		H	H			L		M		H			H	H
CLO3		M	M	H	M	H		M					H	M
CLO4		M	M	M		M		M	M					M
CLO5	H			M	H	M	H	H	H					
CLO6		H	H		H	H				L		M	H	H

H: High, M: Medium, L: Low