



SRI KRISHNA INSTITUTE OF TECHNOLOGY

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#29, Hesaraghatta Main Road, Chimney Hills, Chikkabanavara Post, Bangalore- 560090

Department of Information Science and Engineering

Academic Year: 2021-22	Semester: VI
Course Name: Mobile Application Development	Course Code: 18CSMP68
Total Contact hours: 02	Credits: 02
SEE Marks: 60 ; CIE: 40	Total Marks: 100
Course Plan Author: SOWMYA C V	Date: 22/03/22

Course Prerequisites:

- Knowledge about Programming
- Java
- Concepts of OOPS

Course Objectives:

- Learn and acquire the art of Android Programming.
- Configure Android studio to run the applications.
- Understand and implement Android's User interface functions.
- Create, modify and query on database.
- Inspect different methods of sharing data using services.

Course Outcomes:

CO Number	Course Outcome At the end of the course, student should be able to . . .	Bloom s' Level
CO1	Learn to setup Android application development environment	L3
CO2	Illustrate user interfaces for interacting with apps and triggering actions	L3
CO3	Interpret tasks used in handling multiple activities	L3
CO4	Identify options to save persistent application data	L3
CO5	Appraise the role of security and performance in Android applications	L2



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2. CO – PO Mapping

Course Outcomes	Program Outcomes														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1						2	3	1	3	3					
CO2	1					3	2	3							3
CO3	1					3	2	3	2	1				2	
CO4	1					2		3	2				1		2
CO5	1					2				2			3		

Program Outcomes and Program Specific Outcomes


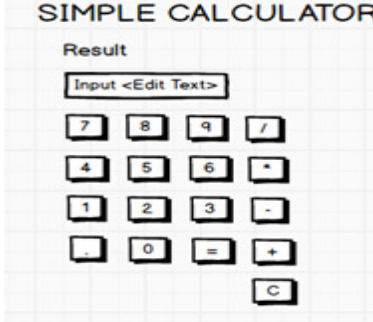
PO, PSO	<p>1.Engineering Knowledge;</p> <p>2.Problem Analysis;</p> <p>3.Design / Development of Solutions;</p> <p>4.Conduct Investigations of Complex Problems;</p> <p>5.Modern Tool Usage;</p> <p>6.The Engineer and Society;</p> <p>7.Environment and Sustainability;</p> <p>8.Ethics;</p> <p>9.Individual and Teamwork;</p> <p>10.Communication;</p> <p>11.Project Management and Finance;</p> <p>12.Life-long Learning;</p> <p>PSO1.: To understand the process and principles of mathematics in the field of Information Science by applying different design principles.</p> <p>PSO2.:To impact the knowledge by experimental methods in multidisciplinary domains.</p> <p>PSO3 : To inculcate communication skills and teamwork in developing sustainable software</p>
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	by imparting professional and ethical values.
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LIST OF EXPERIMENTS:

SL. NO.	Experiments
1	<p>Create an application to design a Visiting Card. The Visiting card should have a company logo at the top right corner. The company name should be displayed in Capital letters, aligned to the center. Information like the name of the employee, job title, phone number, address, email, fax and the website address is to be displayed. Insert a horizontal line between the job title and the phone number.</p> 
2	<p>Develop an Android application using controls like Button, Text View, Edit Text for designing a calculator having basic functionality like Addition, Subtraction, Multiplication, and Division</p> 
3	<p>Create a SIGN Up activity with Username and Password. Validation of password should happen based on the following rules:</p> <ul style="list-style-type: none"> • Password should contain uppercase and lowercase letters. • Password should contain letters and numbers.



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- Password should contain special characters
- Minimum length of the password (the default value is 8).

The image shows two side-by-side forms on a grid background. The left form is titled 'SIGNUP ACTIVITY' and has fields for 'Username:' and 'Password:', followed by a 'SIGN UP' button. The right form is titled 'LOGIN ACTIVITY' and has fields for 'Username:' and 'Password:', followed by a 'SIGN IN' button.

- 4 Develop an application to set an image as wallpaper. On click of a button, the wallpaper image should start to change randomly every 30 seconds.

The image shows a simple application interface on a grid background. It has the title 'CHANGING WALLPAPER APPLICATION' and a single button labeled 'CLICK HERE TO CHANGE WALLPAPER'.

- 5 Write a program to create an activity with two buttons START and STOP. On pressing of the START button, the activity must start the counter by displaying the numbers from One and the counter must keep on counting until the STOP button is pressed. Display the counter value in a Text View control.

The image shows an application interface on a grid background. It has the title 'COUNTER APPLICATION', a text label 'Counter Value', and two buttons labeled 'START' and 'STOP'.


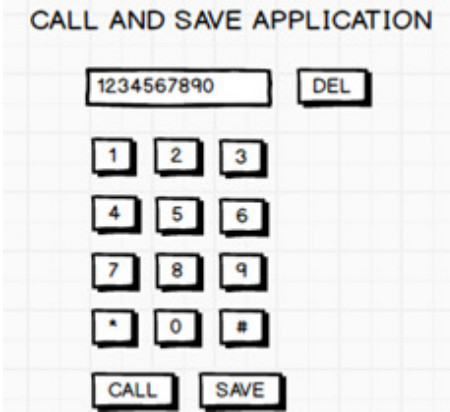
- 6 Create two files of XML and JSON type with values for City_Name, Latitude, Longitude, Temperature, and Humidity. Develop an application to create an activity with two buttons to parse the XML and JSON files which when clicked should display the data in their respective layouts side by side.

The image shows an application interface on a grid background. It has the title 'PARSING XML AND JSON DATA' and two buttons labeled 'Parse XML Data' and 'Parse JSON Data'. To the right, there is a table showing the parsed data for both XML and JSON files.

PARSING XML AND JSON DATA	
XML DATA	JSON Data
City_Name: Mysore	City_Name: Mysore
Latitude: 12.295	Latitude: 12.295
Longitude: 76.639	Longitude: 76.639
Temperature: 22	Temperature: 22
Humidity: 90%	Humidity: 90%



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7	<p>Develop a simple application with one Edit Text so that the user can write some text in it. Create a button called "Convert Text to Speech" that converts the user input text into voice.</p> <div style="text-align: center; margin: 10px 0;">  </div>
8	<p>Create an activity like a phone dialer with CALL and SAVE buttons. On pressing the CALL button, it must call the phone number and on pressing the SAVE button it must save the number to the phone contacts.</p> <div style="text-align: center; margin: 10px 0;">  </div>

Schedule of Instruction

Expts.no	Experiments Name	Aim of the Experiment	Course Outcome	Delivery mode
1	Visiting Card Application	Design the Android Application for Visiting card	CO1	L
2	Simple Calculator	Design Simple Calculator	CO1	L
3	SIGN UP Activity	Design sign up and login activity	CO2	L
4	Changing Wallpaper	Design application for changing wallpaper	CO2	L
5	Counter Application	Design Counter Application with	CO3	L



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		2 Start and Stop Buttons		
6	Parsing activity	Design Application to Parse XML to Json	CO3	L
7	Text to Speech	Design application to convert text to speech	CO4	L
8	Call and Save	Design application to call and save the number	CO5	L

Textbooks & Reference books	
1	Google Developer Training, "Android Developer Fundamentals Course – Concept Reference", Google Developer Training Team, 2017. https://www.gitbook.com/book/google-developer-training/android-developer-fundamentals-course-concepts/details
2	Erik Hellman, "Android Programming – Pushing the Limits", 1st Edition, Wiley India Pvt Ltd, 2014. ISBN-13: 978-8126547197
3	Dawn Griffiths and David Griffiths, "Head First Android Development", 1st Edition, O'Reilly SPD Publishers, 2015. ISBN-13: 978-9352131341
4	Bill Phillips, Chris Stewart and Kristin Marsicano, "Android Programming: The Big Nerd Ranch Guide", 3rd Edition, Big Nerd Ranch Guides, 2017. ISBN-13: 978-0134706054

Web links and Video Lectures (e-Resources):	
1	https://sites.google.com/skit.org.in/psp-website/about-faculty
2	https://www.w3schools.in/android/tutorials/
3	https://www.youtube.com/watch?v=FjrKMcnKahY
4	https://www.youtube.com/watch?v=fis26HvvDII
5	https://www.youtube.com/watch?v=aS__9RbCyHg
6	https://www.tutorialspoint.com/android/index.htm

Sl.No.	Assessment type	CO	Duration In Hours	Marks	
1	CIE-1	CO1,CO2	1hr 15min	30	
2	CIE-2	CO3,CO4	1hr 15min	30	



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3	Mini Project	CO1, CO2, CO3, CO4, CO5		30	
4					
5					

****The sum of total marks of CIE + SEE = 50 + 50 = 100 marks**

Faculty Incharge

DAC Chairman

HOD