4/4 B.Tech. FIRST SEMESTER
MOBILE
APPLICATION
DEVELOPMENT LAB

CS7L2   **Credits: 4**

Required

Lecture: -   **Internal assessment: 25 marks**
Tutorial: 6 period /week   **Semester end examination: 50 marks**

Course Context and Overview: This course introduces the fundamental concepts of Lab. With this foundation students can gain knowledge on Mobile Application Development using Android etc.,

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Prerequisites: C LANGUAGE, I/O ANALOG AND DIGITAL INTERFACING, AND PERIPHERALS

Learning Outcomes:

1. To apply essential Android programming concepts
2. To develop various applications like content Providers, Rich user interactive interfaces etc. using Android
3. To develop applications related to the data base, memory access.
4. To develop applications related to various multimedia applications.

Toast msgs

1) Write an android program to implement activity life cycle using toast messages with proper positioning.

Lay Outs

2) a) Write an android program to print the set of alphabets/strings in a linear layout and in table layout.
   b) Write an android program to align text boxes labels, buttons in an Emulator using relative and linear layout tags in a layout.xml.

Dialogs and Menu

3) a) Write an android program to demonstrate DatePickerDialog, TimePickerDialog with current date and current running time.

   b) Write an android program to demonstrate a Menu with name File with New and Open as menu items. Give toast msgs on click of each menu item.

   (if possible implement the content in 3.a in one tab and other set of items in another tab.)

4) Write an android program to do a simple calculator using a layout and an activity. Display the output in a dialog

5) Write an android program to switch from one activity to another using Intent. When the activity is changed disable the use of back button to avoid going to previous activity

VIEWS

6) Write an android program to demonstrate scroll view and list view.

   (List view should array adapter. The adapter should use array list of companies. Each item in the list view should have company name, company address and its annual revenue.)

7) Write an android program to display a network image by setting to an image view, all the network operations have to be done inside a thread.

8) Write an android program to display a network image by setting to an image view, all the network operations have to be done inside an asynctask. Use a progress dialog inside asynctask to show the progress of image download.

Services

9) Write an android program to start and stop a service using Intent Service class (like playing a song / backing up the data).

Animation

10) Write an android program to have an animation effect over the set of images using both Frame by Frame animation and Tweened animation.

SQLite Database

11) Write an android program to implement the following operations using SQLite Database.
    i.   Create the SQLite Database Object.
    ii.   Execute the CRUD Operations required for the application
    iii.   Close the database.

Notifications:

12) Write an android program to display a notification as soon as a text change occurs.

13) Write an android application to operate on file that exists both on internal storage and external storage.

Learning Resources

Reference Book:

  Android Cook Book, by Ian F. Darwin, O'reilly (SPD) publications.