

CS -802: Mobile Application on Android Platform

Introduction: 2 L

History of Android, Introduction to Android Operating Systems, Android Development Tools, Android Architecture.

[2],[3] : pages 1 to 10

Overview of object oriented programming using Java: 6 L

OOPs Concepts: Inheritance, Polymorphism, Interfaces, Abstract class, Threads, Overloading and Overriding, Java Virtual Machine.

[5] : pages 1 to 50

Development Tools: 5 L

Installing and using Eclipse with ADT plug-in, Installing Virtual machine for Android sandwich/Jelly bean (Emulator), configuring the installed tools, creating a android project – Hello Word, run on emulator, Deploy it on USB-connected Android device.

[1]: Chap 1, Chap 2, Cha[3 (page 55-59)],[4]: pages 1 to 20.

User Interface Architecture: 3 L

Application context, intents, Activity life cycle, multiple screen sizes

[6]: pages 1 to 11,[7]: pages 1 to 8, [8]: page 1to 6.

User Interface Design: 6 L

Form widgets, Text Fields, Layouts, Button control, toggle buttons, Spinners(Combo boxes),Images, Menu, Dialog.

[1]: chap 4 (page 65-89), chap 7(page 163-167), chap 8(179-189): [10]: 16 pages, [11]: 9 pages

Database: 2 L

Understanding of SQLite database, Connecting with the database.

[1]: chap 9 (page 197-207), [12]: 1 to 6 pages

Recommended Reading Material

Text Books

1. Android application development for java programmers. By James C. Sheusi. Publisher: Cengage Learning, 2013.

Online Reading / Supporting Material

2. <http://www.developer.android.com>
3. <http://developer.android.com/about/versions/index.html>
4. <http://developer.android.com/training/basics/firstapp/index.html>
5. <http://docs.oracle.com/javase/tutorial/index.htm> (Available in the form of free downloadable ebooks also).
6. <http://developer.android.com/guide/components/activities.html>
7. <http://developer.android.com/guide/components/fundamentals.html>
8. <http://developer.android.com/guide/components/intents-filters.html>
9. <http://developer.android.com/training/multiscreen/screensizes.html>
10. <http://developer.android.com/guide/topics/ui/controls.html>
11. <http://developer.android.com/guide/topics/ui/declaring-layout.html>
12. <http://developer.android.com/training/basics/data-storage/databases.html>

LIST OF PRACTICAL CS- 802: MOBILE APPLICATION on Android Platform

1. Create "Hello World" application. That will display "Hello World" in the middle of the screen in the emulator. Also display "Hello World" in the middle of the screen in the Android Phone.
2. Create an application with login module. (Check username and password).
3. Create spinner with strings taken from resource folder (res >> value folder) and on changing the spinner value, Image will change.
4. Create a menu with 5 options and selected option should appear in text box.
5. Create a list of all courses in your college and on selecting a particular course teacher-in-charge of that course should appear at the bottom of the screen.
6. Create an application with three option buttons, on selecting a button colour of the screen will change.

7. Create and Login application as above . On successful login pop up the message.
8. Create an application to Create, Insert , update , Delete and retrieve operation on the database.