CSC-455: Mobile Application Development - Lab

General Information

Course Number	CSC-455
Credit Hours	3+1 (Theory Credit Hour = 3, Lab Credit Hours = 1)
Prerequisite	None
Course Coordinator	Not Specified

Course Objectives

This course is a fundamental base for knowledge about mobile computing and application development platforms. of algorithm design and programming gained in programming courses with continued emphasis on the logic underlying the transition from specification to program. Particular attention is paid to issues arising in the implementation of mobile applications: specifically, for android using databases and offline storage and web based services. Using object-oriented programming techniques.

Catalog Description

CSC 455

Course Content

Session No.	Week No.	Topic	Suggested Readings (Chapters)
01-03	01	1. Introduction to tool 2. Installation of Android Studio 3. Understanding the debugging tools	Book chapter (1, 2) And Lecture Notes
04-06	02	1. Building Android First App 2. Practice Exercises	Book Chapter (2) and Lecture Notes
07-09	03	1. Using Layouts, Basic Widgets 2. Practice Exercises	Book Chapter (2, 3) and Lecture Notes
10-12	04	1. Using Events to work with widgets 2. Creating Activities and Applications 3. Working with Intents 4. Creating apps with multiple activities 5. Exercises	Book Chapter (3, 4, 5) and Lecture Notes
12-15	05	1. Understanding the state preferences 2. Using the shared prefs to create apps 3. Practice Exercises	Book Chapter (7) and Lecture Notes
First Mid Term Exam			
16-18	06	1. Adding Menu Bars 2. Working with the Media Player 3. Camera and Implicit Intent working	Book Chapter (15) and Lecture Notes
19-21	07	1. Working with File storage 2. Lists and other widgets 3. Working with Android Built In Database (SQLite)	Book Chapter (7, 8) and Lecture Notes
22-24	08	1. Working with Fragments 2. Creating swipe functionality along with fragments	Book Chapter (5) and Lecture Notes

		3. Fragments using menu	
25-27	09	1. Android Text to Speech 2. Android Speech to text	Book Chapter (11) and Lecture Notes
28-30	10	1. Working with Background Tasks 2. Using services 3. Bind service 4. Threads, AssyncTask and Handlers	Book Chapter (09) and Lecture Notes
Second Mid Term Exam			
31-33	11	1. Broadcast receivers 2. Working with Notifications 3. Working IPC using receivers along with services	Book Chapter (05, 09) and Lecture Notes
34-36	12	1. Content Providers 2. Receiving and Updating data in content providers	Book Chapter (8) and Lecture Notes
37-39	13	1. Working with Network based apps 2. JSON and XML parsing 3. MAPs and GeoCoding	Book Chapter (9) and Lecture Notes
40-42	14	1. Introducing Sensors, and other hardwares 2. Working with SMS and Telephony 3. Introducing 2D Graphics 4. Exercises	Book Chapter (12) and Lecture Notes
43-45	15	1. Uploading app to the Android Google App Market	Book Chapter (19) and Lecture Notes
Final Exams			

Text Book

1. Professional Android 4 Application Development by Reto Meier

Reference Material

1. Instructor's notes
2. Head First To Android Development (by Orie'lly)

Course Learning Outcomes

	Course Learning Outcomes (CLO)
1	**Design** and **develop** Android device-specific, native applications
2	**Integrate** database and server-side technologies to provide complete mobile development solutions
3	**Analyze** the code using android studio for any logical errors and bugs

CLO-SO Map

	SO IDs											
CLO ID	**GA1**	**GA2**	**GA3**	**GA4**	**GA5**	**GA6**	**GA7**	**GA8**	**GA9**	**GA10**	**GA11**	**GA12**
CLO 1	0	0	1	0	0	0	0	0	0	0	0	0
CLO 2	0	0	1	0	0	0	0	0	0	0	0	0
CLO 3	0	0	0	1	0	0	0	0	0	0	0	0

Approvals

Prepared By	Nisar Ahmed Siddiqui
Approved By	Not Specified
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