

PARUL UNIVERSITY - Faculty of IT & Computer Science

Department of Computer Application

SYLLABUS FOR 6th Sem B.Sc. (IT), BCA, IMCA, IMCA (A.Y.-IV) PROGRAMME

Mobile Application Development (05101352)

Type of Course: B.Sc. (IT), BCA, IMCA, IMCA (A.Y.-IV)

Prerequisite: Basic Knowledge of Core java and Object Oriented Concepts.

Rationale: Introduce with mobile market and mobile application development.

Teaching and Examination Scheme:

Teaching Scheme			Credit	Examination Scheme					Total
Lect Hrs/ Week	Tut Hrs/ Week	Lab Hrs/ Week		External		Internal			
				T	P	T	CE	P	
4	1	4	7	60	30	20	20	20	150

Lect - Lecture, **Tut** - Tutorial, **Lab** - Lab, **T** - Theory, **P** - Practical, **CE** - CE, **T** - Theory, **P** - Practical

Contents:

Sr.	Topic	Weightage	Teaching Hrs.
1	Introduction to mobile computing & Mobile Development: Introduction to MC, Applications, Limitations and architecture. Cellular overview, Cellular networks, Mobile IP, History of mobile software development. The open handset alliance, The android platform, android SDK, Building a simple application.	15%	7
2	Android Application Design Essentials: Anatomy of an android applications, Android terminologies, Application context, Activities, services, Intents, Receiving and broadcasting intents, Android manifest file and its common settings using intent filter, Permissions, Managing application resources in a hierarchy, Working with different types of resources.	20%	10
3	Android User Interface Design Essentials: User interface screen elements, Designing user interfaces with layouts, drawing and working with Using android networking APIs, Using android web APIs.	20%	10
4	Database Connectivity Using SQLite: Using android data and storage APIs, Managing data using SQLite, Sharing data between applications with content providers.	25%	12
5	Working with Common API: Using Android Networking APIs Using Android Web APIs Using Android Telephony APIs, Notification.	18%	8
6	Publishing your Application:	2%	1

***Continuous Evaluation:**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.

Reference Books:

1. Android Wireless Application Development (TextBook)
Lauren Darcey and Shane Conder; Pearson Education; First Edition
2. Professional Android 2 Application Development
Reto Meier; Wiley India Pvt Ltd, 2011
3. Beginning Android
Mark L Murphy,; Wiley India Pvt Ltd.(2009)
4. Pro Android
Sayed Y Hashimi and Satya Komatineni; Wiley India Pvt Ltd.(2009)

Course Outcome:

After Learning the course the students shall be able to:

1. Design mobile applications using Android as development platform
2. Develop user friendly, data driven and responsive mobile applications using Android as development platform
3. Deployment of Application

List of Practical:

1. **Create "Hello World" application. That will display "Hello World" in the middle of the screen in the red color with white background.**
2. **Create My_info application. That will display your name, qualification, contact num, email id and address with background color gray. All details must have different color. (using XML) Change color of above program using java code**
3. **Write a program to demonstrate life cycle of activity in android.**
4. **Create an application that designs a layout with a text box and button named submit. The user should enter the text in the text box. When the submit button is clicked then the text in the text box should be displayed in the toast.**
5. **Create an android application named "Arithmetic_op" which perform all basic arithmetic operation like addition, subtraction, multiplication and division.**
6. **Create simple program which show the use of auto complete text view.**
7. **Create sample application with login module.(Check username and password) On successful login, go to next screen. And on failing login, alert user using Toast. Also pass username to next screen.**
8. **Create login application where you will have to validate Email ID (UserName). Till the user name and password is not validated, login button should remain disabled.**
9. **Create an application that will pass username and password on the next screen.**
10. **Create simple Application which show the use of List view.**
11. **Create simple Application which show the use of Radio button, take 3 radio button. When radio button is selected we have to show the text of radio button using Toast.**

12. Create simple Application which show the use of Checkbox component, take 3 checkbox and 1 button when you check the checkboxes and click on button then you have to show which checkbox is check with text of checkbox using Toast.
13. Create simple Application which show the use of CheckBox component, take 3 checkbox when you check the checkboxes then you have to show which checkbox is check with text of checkbox using Toast.
14. Create simple Application which shows the use of WebView.
15. Create simple Application which shows the use of SeekBar.
16. Create simple Application which shows the use of RatingBar.
17. Create simple Application which shows the use of Alert Dialog.
18. Create simple Application which shows the use of TimePicker.
19. Create simple Application which shows the use of DatePicker.
20. Create simple Application which shows the use of ImageView.
21. Create application in which take two button start and stop service. When you press start button one service should be started and when you press stop then service should be destroy.
22. Create application to create "school.db" database and create table with name "student" which contain columns (id, name, surname, mark) using SQLite database.
23. Create application to insert data into table "student" using SQLite database.
24. Create application which shows inserted data in table student in alert dialog box using SQLite database.
25. Create application which updates data in table student using SQLite database.
26. Create application which deletes record from table student using SQLite database.