



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (B.Voc), 5th Semester

Branch: Software Development

Subject Name-On-Job Training (Elective): Android Programming

Subject Code: 21150209

Type of course: On-Job Training (Elective)

Prerequisite: Basic Knowledge of OOPS concept and Core java

Rationale: Application development is becoming need of the day as webpage development was about ten years ago. Most companies are developing their mobile applications so that customers may interact with them on mobiles itself. Android is most popular mobile operating system of today. Android application development course is therefore designed to enable the diploma information technology students to build mobile applications on this platform. This course covers the basics of Android along with required programming codes for developing necessary programming skills for mobile applications. Thus this course is an important course for Software Development students with possibilities of self-employment.

Teaching and Examination Scheme:

Teaching Scheme			Credit C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE(V)	PA (I)	
0	0	15	15	0	0	100	100	200

L- Lectures; P- Practical; OJT- On Job Training; C- Credit; ESE- End Semester Examination; PA- Progressive Assessment

OJT Hands on Exercise/Training:

Sr.No.	Training / Hands on Exercise	Hrs.
1	Create "hello world" application to display "hello world" in the middle of the	5
2	Create an android app to display various android lifecycle phases.	5
3	Create an android app with first activity having edittext and send button. On click of send button, use explicit intent to send the text within edittext to a second activity and displayed within textview.	5
4	Create an android app with first activity having edittext and send button. On click of send button, use implicit intent that uses send action, and let user select app from app chooser and navigate to that application.	5
5	Create a calculator app that performs addition, subtraction, division and multiplication operation on numbers.	5
6	Create a spinner application with strings taken from resource directory res/values/strings.xml and on changing the spinner value, image will change. Image is saved in the drawable directory	5
7	Create an app that uses radiobutton group which calculates discount on shopping bill amount. Use edittext to enter bill amount and select one of three radio buttons to determine a discount for 10, 15, or 20 percent.the discount is calculated upon selection of one of the buttons and displayed in a textview	5
8	Create an app that uses radiobutton group of all courses in your college. On selecting one of the buttons, the TIC of that course should be displayed in a textview control at the bottom of the screen.	5
9	Create an application that uses checkbox for construction of a shopping list so the user can check off items as they are picked up. The checked items should be displayed in a textview control.	5
10	Create a login application to verify username and password. Create a registration page to register a user. On successful login, "welcome user" should appear as a pop-up message.	5



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (B.Voc), 5th Semester

Branch: Software Development

Subject Name-On-Job Training (Elective): Android Programming

Subject Code: 21150209

11	Create a login application to verify username and password. On successful login, redirect to another activity that has a text view to display "welcome user" with logout button. On click of logout button, a dialog should appear with ok and cancel buttons. On click of oK button, go back to the login activity and on click of cancel button, stay on the same activity.	5
12	Create a menu with 5 options. The selected option should appear in the textbox.	5
13	Use linear layout to create a simple application that will take the contents of a predefined textview and use a button to cause the application to take that text, convert it to uppercase, and display it in an edittext field.	5
14	When working with edittext controls on the screen, create an application to respond to a particular keystroke rather than requiring the user to touch a button using keyevent.	5
15	Create an application that uses table layout with text view, edit text and buttons. Also, create ur own styles.xml file within res/values directory, to style text of textview control.	5
16	Create an application to perform the operations of create, insert, delete, view and update, using sqlite database	5
17	Create an app to display 3 button controls vertically aligned. On selecting a button, the color of the screen will change.	5
18	Create login application where you will have to validate Email ID (UserName). Till the username and password is not validated, login button should remain disabled.	5
19	Create and Login application as above. On successful login, open browser with any URL.	5
20	Create an application to open any URL inside the application and clicking on any link from that URI should not open Native browser but that URL should open the same screen.	5
21	Create an application to take picture using native application.	5
22	Create an application to send message between two emulators.	5
23	Create an application to draw line on the screen as user drag his finger.	10
24	Create an application to read file from the sdcard and display that file content to the screen.	10
25	Create an application to read file from asset folder and copy it in memory card	10
26	Read messages from the mobile and display it on the screen.	10
27	Create an application to use Services, camara, phone calls.	10
28	Create an application to use Intent, Audio and Video	10
29	Create an application to use notifications and dialogue.	10
30	Create an location based app.	10
31	Create an application that makes use of Send SMS and Send Email.	5
32	Create an application with database use.	5
	Total	200



GUJARAT TECHNOLOGICAL UNIVERSITY

Syllabus for Bachelor of Vocation (B.Voc), 5th Semester

Branch: Software Development

Subject Name-On-Job Training (Elective): Android Programming

Subject Code: 21150209

Course Outcomes:

Sr. No.	CO Statement	Marks % Weightage
CO-1	Understand and Apply the knowledge to design user interface using fragment, intent, notification and other components.	30
CO-2	Understand concepts of media in development of applications.	20
CO-3	Understand and Develop applications using map, location, and animation.	30
CO-4	Understand and Develop applications using content provider, services, and telephony.	20

Reference:

1. <https://www.udacity.com/course/ud853www.w3.org>
2. www.w3schools.com
3. <https://www.eclipse.org/downloads/www.mysql.com>
4. <http://www.codelearn.org/androidtutorial>