# 20IT32SC - MOBILE APP DEVELOPMENT LABORATORY

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| Course Category: | Skill Oriented | Credits: | 2 |
| Course Type: | Practical | Lecture-Tutorial-Practical: | 1-0-2 |
| Prerequisite: | Required the basics of Java, XML, SQLite and Android Studio. | Sessional Evaluation:Univ. Exam Evaluation:Total Marks: | 4060100 |
| Objectives: | * Able to Design a Mobile Application.
* Develop and deploy the Mobile Applications in marketplace.
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| Course Outcomes | Understand the fundamental issues and usage of mobile applications and develop various innovative applications which are useful for society. |
| Course Content | **Session-I:** Review of Java Concepts, Download and Install Android Studio, Android Setup, Application components, Resources, Activities, ServicesDevelop a Hello World Program**Session-II:** Android User Interfaces: UI Layouts, UI Controls, Styles and Themes.Develop an application that uses GUI components, Font and Colours.**Session-III:** Android Event Handling, Drag and Drop, Notifications.Develop a basic Calculator application that uses Layout Managers and event listeners.**Session-IV:** Alert Dialogues, Clipboard, AnimationDevelop an application that draws basic graphical primitives on the screen.**Session-V:** Sending SMS, Phone callsDevelop an application for SMS, Phone Calls.**Session-VI:** Android Audio Capture, Audio Manager, Audio Complete.Develop a program for Audio Capture.**Session-VII:** SqLite (CRUD).Develop an Android Program to connect Database and Develop Database Operations using SQLite.**Session-VIII:** Text to SpeechDevelop an Application for Text to Speech.**Session-IX:** Google MapsDevelop an application for identify the current location.**Session-X:** Develop an application for College Requirement. |
| Text Books &ReferenceBooks | **TEXT BOOKS:**1. Java: The Complete Reference, 10th Edition, Herbert Schildt TMH, Indian Edition.
2. Jeff McWherter and Scott Gowell, "Professional Mobile Application Development", Wrox, 2012.

**REFERENCE BOOKS:**1. Charlie Collins, Michael Galpin and Matthias Kappler, “Android in Practice”, DreamTech, 2012.
2. James Dovey and Ash Furrow, “Beginning Objective C”, Apress, 2012.
3. David Mark, Jack Nutting, Jeff LaMarche and Frederic Olsson, “Beginning Ios.
4. Development: Exploring the iOS SDK”, Apress, 2013.
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| E-Resources | 1. <http://developer.android.com/>
2. <https://www.w3schools.com/>
3. <https://www.docs.flutter.dev/>
4. <https://www.tutorialspoint.com/android>
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**CO-PO Mapping:** 3-High Mapping, 2-Moderate Mapping, 1-Low Mapping, - -Not Mapping

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|   | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** | **PO7** | **PO8** | **PO9** | **PO10** | **PO11** | **PO12** |
| **CO** | 3 | - | 2 | - | 3 | - | 2 | 3 | - | - | 2 | 3 |