# 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: | 40  60  100 |
| 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, Services  Develop 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, Animation  Develop an application that draws basic graphical primitives on the screen.  **Session-V:** Sending SMS, Phone calls  Develop 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 Speech  Develop an Application for Text to Speech.  **Session-IX:** Google Maps  Develop an application for identify the current location.  **Session-X:** Develop an application for College Requirement. |
| Text Books &  Reference  Books | **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. |
| E-Resources | 1. <http://developer.android.com/> 2. <https://www.w3schools.com/> 3. <https://www.docs.flutter.dev/> 4. <https://www.tutorialspoint.com/android> |

**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 |