**Lesson Plan- Lab**

**Subject Name:** Mobile application development          **Code**:s 05201301

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| Sr. No. | Practical Titles |
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| 1 | Basic Android App<br><br>Develop a basic mobile application to display a message in canter of screen. |
| 2 | Basic android widgets<br><br>Develop an application that asks user to enter user id and password. Upon receiving user id and password, application should compare both of them with prescribed values. Application should display appropriate message to user. |
| 3 | Authentication, Validation and Toast<br><br>Develop an authentication application that asks user to enter email id and password. Log In button should remain disabled until user enter email id in valid format. In case of successful authentication, user should be redirected to another activity which contains welcome message along with email id of authenticated user, otherwise appropriate error message should be displayed |
| 4 | Options Menu<br><br>Develop a menu driven application that provides facility to set background color of activity. User should be able to select background color from options menu |
| 5 | Handler and Threads : Develop an application that should increment the value of a text after specific interval of time. Also provide feature to stop incrementing value of the text. |
| 6 | Asynchronous task<br><br>Develop an application that activates a progress bar on button click. The progress of progress bar (in form of %) should be shown accordingly. Appropriate message should be shown upon completion of increment in progress bar value |
| 7 | Android Service<br><br>Develop an android service that shows a message at specific interval of time. Also provide features to start and stop the service |
| 8 | Notifications<br><br>Develop an android application that ask for upper bound and lower bound value of a range. The application should list out prime numbers existing between specified range on screen (utilize service running in background for searching prime numbers). Upon completion of operation, application should prompt the user through a notification. |
| 9 | Read Contacts from Phone |

| | Develop an application that fetches all contacts phone book and displays on screen. |
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| 10 | Dynamic Generation of Widgets

Develop an application that accepts a number from user. The application should dynamically generate accepted number of list items in another activity |
| 11 | Telephony API (Calling)

Develop a dialer application that asks for a mobile number to the user and makes a call to that number on button click. |
| 12 | Messaging

Develop an SMS manager that list downs all the messages from message box of device. User should also be able to send message through this application |
| 13 | File I/O

Develop a user registration application which data from user and insert received data in a text file (generated/existing) on the same device. |
| 14 | Shared Preferences

Develop an application that asks the user to select background color of application. The application must remember and apply selected background color every time when user launches the application then after. |
| 15 | Database CRUD Operations

Develop a data oriented application for user data (user id, name, address, contact number) management. The application should provide interface to add, update, delete and list data of user (s). (Hint: use SQLite database). |
| 16 | Data Driven Authentication

Develop a data driven user authentication application that asks for user id and password to user. After accepting user id and password, application should check whether entered authentication details exists in data table or not. Display appropriate message on screen |
| 17 | Animation

Develop an application that contains a spinner and an image. Spinner should contain names of animations. Upon selecting an animation name, selected animation should be applied on image view |
| 18 | Audio Player

Develop an audio player application having facilities to start, pause and stop audio playback. |
| 19 | Web Browser

Develop an application to show contents of specified URL without using native browser. Also provide facility to navigate to previous and next page as well as clear browsing history. |
| 20 | Location Based Services

Develop an application that keeps track of location (coordinates) of device and display values |

| | of longitude and latitude on screen. |