| Course Code                  | : | CSLR62                     |
|------------------------------|---|----------------------------|
| Course Title                 | : | App Development Laboratory |
| Number of Credits            | : | 0-0-3-2                    |
| Pre-requisites (Course Code) | : | -                          |
| Course Type                  | : | PL                         |

### **Course Objectives**

- To be familiar with Web page design using HTML/XML and style sheets
- To learn to write Client Server applications
- To be familiar with the PHP programming
- To be exposed to creating applications with AJAX
- Know the components and structure of mobile application development frameworks for Android and windows OS based mobiles
- Learn the basic and important design concepts and issues of development of mobile applications

### **Exercises**

# A. Web Applications

- 1. Create a web page for user registration using HTML, CSS and validate the details using Javascript.
- 2. Write programs in Java using Servlets: (i) To invoke servlets from HTML forms; (ii) Session tracking using hidden form fields and Session tracking for a hit count.
- 3. Create three-tier applications using JSP for conducting on-line examination for displaying student mark list. Assume that student information is available in a database which has been stored in a database server.
- 4. Create a database with user information and books information and create a webpage in which books catalogue should be dynamically loaded from the database using AJAX.
- 5. Create and save an XML document at the server, which contains 10 users Information. Write a Program, which takes user Id as an input and returns the User details by taking the user information from the XML document.
- 6. Develop email verification application using PHP.

### **B.** Mobile Applications

- 1. Design restaurant data entry form using Table Layout and show different events using activity class.
- 2. Write a program to capture image using built in camera and store it in database.
- 3. Develop a banking application that registers the user by verifying OTP.
- 4. Develop a native application that uses GPS location information and convert into speech.
- 5. Write a program to call a number.

#### **Course Outcomes**

Upon completion of this course, the students will be able to:

- Construct Web pages using HTML/XML and style sheets
- Build dynamic web pages with validation using Java Script objects and by applying different event handling mechanisms
- Develop Web application which makes use of PHP programming
- Construct web applications using AJAX
- Design and Implement various mobile applications using emulators
- Deploy applications to hand-held devices

## **Text Books**

- 1. Reto Meier, "Professional Android 4 Application Development", Wrox, 2012.
- 2. Matt Gifford, "PhoneGap Mobile Application Development Cookbook", Packt, 2012.
- 3. Adrian Kosmaczewski, "Mobile JavaScript Application Development", O'Reilly, 2012.