# ONLINE LIBRARY MANAGEMENT SYSTEM USING PHP

### A PROJECT REPORT

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In partial fulfilment for the award of the degree

Of

BACHELOR OF ENGINEERING

In

COMPUTER SCIENCE AND ENGINEERING



T.J.S. ENGINEERING COLLEGE PERUVOYAL (NEAR KAVARAIPETTAI) GUMMIDIPOONDI TALUK

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# ANNA UNIVERSITY: CHENNAI 600 025 BONAFIDE CERTIFICATE

Certificate that this project report "ONLINE LIBRARY MANAGEMENT SYSTEM USING PHP" is the bonafide work of the following students.

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INTERNAL EXAMINER

EXTERNAL EXAMINER

## **ABSTRACT**

The Library Management System is an application for assisting a librarian in managing a book library in a university. The system would provide basic set of features to add/update members, add/update books, and manage check in specification for the systems based on the client's statements of need. Library management system is a typical management Information system (MIS), its Development include the establishment and maintenance of back-end Database and front-end application development aspects. For the former require the establishment of data consistency and integrity of the strong data security and good libraries. As for the latter requires the application fully functional, easy to use and so on. With the advancement of technology, it is imperative to exalt all the systems into a user-friendly manner. The Library Management system (LMS) acts as a tool to transform traditional libraries into digital libraries. In traditional libraries, the students/user has to search for books which are hassle process and there is no proper maintenance of database about issues/fines. The overall progress of work is slow and it is impossible to generate a fast report. The librarians have to work allotted for arranging, sorting books in the book sells. At the same time, they have to check and monitor the lend/borrow book details with its fine. It is a tedious process to work simultaneously in different sectors. LMS will assist the librarians to work easily. The LMS supports the librarians to encounter all the issues concurrently. The users need not stand in a queue for a long period to return/borrow a book from the library. The single PC contains all the data's in it. The librarians have to assess the system and provide an entry in it. Through LMS the librarian can find the book in the bookshelves. The LMS is designed with the basic features such as librarian can add/view/update/delete books and students' details in it. Once he/she ingress into the system they can modify any data's in the database. The authorized person can only access the LMS system, they have to log in with their user id and password. As forementioned that the LMS is designed in a user-friendly manner, so the admin can smoothly activate the system without expert advice. Every data is storing and retrieving from the SQL database so it is highly secure. Thus our system contributes its new approach towards the digital library setup.

#### **OBJECTIVES:**

- To understand different Internet Technologies.
- To learn java-specific web services architecture

#### UNIT I WEBSITE BASICS, HTML 5, CSS 3, WEB 2.0

9

Web Essentials: Clients, Servers and Communication – The Internet – Basic Internet protocols – World wide web – HTTP Request Message – HTTP Response Message – WebClients — Web Servers — HTML5 — Tables — Lists — Image — HTML5 control elements — Semantic elements — Drag and Drop — Audio — Video controls - CSS3 — Inline, embedded and external style sheets — Rule cascading — Inheritance — Backgrounds — Border Images — Colors — Shadows — Text — Transformations — Transitions — Animations.

#### UNIT II CLIENT SIDE PROGRAMMING

9

Java Script: An introduction to JavaScript—JavaScript DOM Model-Date and Objects,- Regular Expressions- Exception Handling-Validation-Built-in objects-Event Handling- DHTML with JavaScript-JSON introduction — Syntax — Function Files — Http Request — SQL.

#### UNIT III SERVER SIDE PROGRAMMING

9

Servlets: Java Servlet Architecture- Servlet Life Cycle- Form GET and POST actions- Session Handling-Understanding Cookies- Installing and Configuring Apache Tomcat Web Server- DATABASE CONNECTIVITY: JDBC perspectives, JDBC program example - JSP:

Understanding Java Server Pages-JSP Standard Tag Library (JSTL)-Creating HTML forms by embedding JSP code.

#### UNIT IV PHP and XML

9

An introduction to PHP: PHP- Using PHP- Variables- Program control- Built-in functions-Form Validation- Regular Expressions - File handling — Cookies - Connecting to Database.

XML: Basic XML- Document Type Definition- XML Schema DOM and Presenting XML, XMLParsers and Validation, XCL and XSLT Transformation, News Feed (RSS and ATOM).

9

#### UNIT V INTRODUCTION TO AJAX and WEB SERVICES

AJAX: Ajax Client Server Architecture-XML Http Request Object-Call Back Methods; Web Services: Introduction- Java web services Basics — Creating, Publishing, Testing and Describing a Web services (WSDL)-Consuming a web service, Database Driven web service from an application —SOAP.

TOTAL 45 PERIODS

#### **OUTCOMES:**

#### At the end of the course, the students should be able to:

- Construct a basic website using HTML and Cascading Style Sheets.
- Build dynamic web page with validation using Java Script objects and by applying different event handling mechanisms.
- Develop server side programs using Servlets and JSP.
- Construct simple web pages in PHP and to represent data in XML format.
- Use AJAX and web services to develop interactive web applications

#### TEXT BOOK:

 Deitel and Deitel and Nieto, —Internet and World Wide Web - How to Program||, Prentice Hall, 5th Edition, 2011.

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#### REFERENCES:

- 1. Stephen Wynkoop and John Burke —Running a Perfect Website||, QUE, 2ndEdition,1999.
- 2. Chris Bates, Web Programming Building Intranet Applications, 3rd Edition, Wiley Publications, 2009.
- 3. Jeffrey C and Jackson, —Web Technologies A Computer Science Perspective||, Pearson Education, 2011.
- 4. Gopalan N.P. and Akilandeswari J., —Web Technology||, Prentice Hall of India, 2011.
- 5. UttamK.Roy, —Web Technologies||, Oxford University Press, 2011.

CS8661

#### INTERNET PROGRAMMING LABORATORY

LTPC

#### **OBJECTIVES:**

- To be familiar with Web page design using HTML/XML and style sheets

  To be expected to creation of user interfaces using Java frames and applets.
  - To learn to create dynamic web pages using server side scripting.
  - To learn to write Client Server applications.
- To be familiar with the PHP programming.
- To be exposed to creating applications with AJAX

#### LIST OF EXPERIMENTS

- 1. Create a web page with the following using HTML
  - a. To embed a map in a web page
  - b. To fix the hot spots in that map
  - c. Show all the related information when the hot spots are clicked.
- 2. Create a web page with the following.
  - a. Cascading style sheets.
  - b. Embedded style sheets.
  - c. Inline style sheets. Use our college information for the web pages.
- 3. Validate the Registration, user login, user profile and payment by credit card pages usingJavaScript.
- 4. 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
- 5. Write programs in Java to create three-tier applications using servlets 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.
- 6. Install TOMCAT web server. Convert the static web pages of programs into dynamic web pages using servlets (or JSP) and cookies. Hint: Users information (user id, password, credit card number) would be stored in web.xml. Each user should have a separate Shopping Cart.
- 7. Redo the previous task using JSP by converting the static web pages into dynamic web pages. Create dynamically loaded from the database.
- 8. 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 takingthe user information from the XML document
- 9. i. Validate the form using PHP regular expression. ii. PHP stores a form data into database.
- 10. Write a web service for finding what people think by asking 500 people's opinion for any consumer product.

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**TOTAL: 60PERIODS** 

#### **OUTCOMES:**

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Upon Completion of the 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 dynamic web pages using server side scripting.
- Use PHP programming to develop web applications.
- Construct web applications using AJAX and web services.

#### **SOFTWARE REQUIRED:**

• Dream Weaver or Equivalent, MySQL or Equivalent, Apache Server, WAMP/XAMPP



PRINCIPAL

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