

SREENIVASA INSTITUTE of TECHNOLOGY and MANAGEMENT STUDIES

II MCA - I Semester

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16MCA216

WEB PROGRAMMING LAB

Course Objectives:

- To Design Static Web pages using HTML and Dynamic Web Page using PHP
- To Learn a Scripting language called Java Script-used to do Client side Validation
- To Learn XML & MySQL tool for Defining a database for Web Applications
- To Explore Server Side Technoloies like Servlets and JSP

Hardware and Software required

1. A working computer system with either Windows or Linux
2. A web browser either IE or firefox
3. Tomcat web server and Apache web server
4. XML editor like Altova Xml-spy [www.Altova.com/XMLSpy – free] , Stylusstudio , etc.,
5. A database either Mysql or Oracle
6. JVM(Java virtual machine) must be installed on your system

Syllabus:

Exercise : 1

Design the following static web pages required for an online book store web site.

1) HOME PAGE:

The static home page must contain three frames.

Top frame: Logo and the college name and links to Home page, Login page, Registration page,

Catalogue page and Cart page (the description of these pages will be given below).

Left frame : At least four links for navigation, which will display the catalogue of respective links.

For e.g.: When you click the link “CSE” the catalogue for CSE Books should be displayed in the Right frame.

Right frame: The pages to the links in the left frame must be loaded here. Initially this page contains description of the web site.

	Web Site Name
--	---------------

Logo				
Home	Login	Registration	Catalogue	Cart
CSE ECE EEE CIVIL	Description of the Web Site			

2) LOGIN PAGE

Logo	Web Site Name			
Home	Login	Registration	Catalogue	Cart
CSE ECE EEE CIVIL	Login : <input type="text"/> Password: <input type="text"/> <input type="button" value="Submit"/> <input type="button" value="Reset"/>			



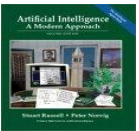




This page looks like below:

3) CATALOGUE PAGE

The catalogue page should contain the details of all the books available in the web site in a table. The details should contain the following:

Snap shot of Cover Page. , Author Name., Publisher., Price., Add to cart button.

	Web Site Name
--	---------------

Logo				
Home	Login	Registration	Catalogue	Cart
CSE		Book : XML Bible Author : Winston Publication : Wiely	\$ 40.5	
ECE		Book : AI Author : S.Russel Publication : Princeton hall	\$ 63	
EEE				
CIVIL		Book : Java 2 Author : Watson Publication : BPB publications	\$ 35.5	
		Book : HTML in 24 hours Author : Sam Peter Publication : Sam publication	\$ 50	

Note: Week 2 contains the remaining pages and their description.

Exercise-2:

4) CART PAGE

The cart page contains the details about the books which are added to the cart.

The cart page should look like this:

Logo	Web Site Name			
Home	Login	Registration	Catalogue	Cart

	Book name	Price	Quantity	Amount
CSE				
ECE				
EEE	Java 2	\$35.5	2	\$70
CIVIL	XML bible	\$40.5	1	\$40.5
			Total amount -	\$130.5

Exercise-3:

REGISTRATION PAGE

Create a “*registration form*” with the following fields

- 1) Name (Textfield)
- 2) Password (password field)
- 3) E-mail id (text field)
- 4) Phone number (text field)
- 5) Sex (radio button)
- 6) Date of birth (3 select boxes)
- 7) Languages known (check boxes – English, Telugu, Hindi, Tamil)
- 8) Address (text area)

VALIDATION

Write *JavaScript* to validate the following fields of the above registration page.

Name (Name should contain alphabets and the length should not be less than 6 characters).

Password (Password should not be less than 6 characters length).

E-mail id (should not contain any invalid and must follow the standard pattern

name@domain.com)

Phone number (Phone number should contain 10 digits only).

Note : validation of the login page can also be done with these parameters.

Exercise-4:

Design a web page using CSS (Cascading Style Sheets) which includes the following:

- 1) Use different font, styles:

In the style definition you define how each selector should work (font, color etc.).

Then, in the body of your pages, you refer to these selectors to activate the styles.

For example:

```

<HTML>
<HEAD>
<style type="text/css">
B.headline {color:red; font-size:22px; font-family:arial; text-
decoration:underline }
</style>

</HEAD>

<BODY>
<b>This is normal bold</b><br>
Selector { cursor:value }

For example:

<html>
<head>
<style type="text/css">
.xlink { cursor:crosshair }
.hlink { cursor:help }
</style>
</head>

<body>
<b>
<a href="mypage.htm" class="xlink">CROSS LINK</a>
<br>
<a href="mypage.htm" class="hlink">HELP LINK</a>
</b>
</body>
</html>

<b class="headline">This is headline style bold</b>

```

```
</BODY>
```

```
</HTML>
```

- 2) Set a background image for both the page and single elements on the page.
You can define the background image for the page like this:

```
BODY {background-image:url(myimage.gif);}
```

- 3) Control the repetition of the image with the background-repeat property.

As background-repeat: repeat Tiles the image until the entire page is filled, just like an ordinary background image in plain HTML.

- 4) Define styles for links as

```
A:link  
A:visited  
A:active  
A:hover
```

Example:

```
<style type="text/css">  
A:link {text-decoration: none}  
A:visited {text-decoration: none}  
A:active {text-decoration: none}  
A:hover {text-decoration: underline; color: red;}  
</style>
```

- 5) Work with layers:

For example:

```
LAYER 1 ON TOP:  
<div style="position:relative; font-size:50px; z-index:2;">LAYER 1</div>  
<div style="position:relative; top:-50; left:5; color:red; font-size:80px; z-  
index:1">LAYER 2</div>
```

```
LAYER 2 ON TOP:  
<div style="position:relative; font-size:50px; z-index:3;">LAYER 1</div>
```

```
<div style="position:relative; top:-50; left:5; color:red; font-size:80px; z-index:4">LAYER 2</div>
```

6) Add a customized cursor:

Selector

{ cursor:value }

For example:

```
<html>
<head>
<style type="text/css">
.xlink { cursor:crosshair }
.hlink { cursor:help }
</style>
</head>

<body>
<b>
<a href="mypage.htm" class="xlink">CROSS LINK</a>
<br>
<a href="mypage.htm" class="hlink">HELP LINK</a>
</b>
</body>
</html>
```

Exercise-5:

Write an XML file which will display the Book information which includes the following:

- 1) Title of the book
- 2) Author Name
- 3) ISBN number
- 4) Publisher name
- 5) Edition
- 6) Price

Write a Document Type Definition (DTD) to validate the above XML file.

Display the XML file as follows.

Hint: You can use some xml editors like XML-spy

Exercise-6:

User Authentication

Assume four users user1,user2,user3 and user4 having the passwords pwd1,pwd2,pwd3 and pwd4 respectively. Write a servlet for doing the following.

1. Create a Cookie and add these four user id's and passwords to this Cookie.
2. Read the user id and passwords entered in the Login form (week1) and authenticate with the values (user id and passwords) available in the cookies.

If he is a valid user(i.e., user-name and password match) you should welcome him by name(user-name) else you should display " You are not an authenticated user ".

Use init-parameters to do this. Store the user-names and passwords in the webinf.xml and access them in the servlet by using the getInitParameters() method.

Exercise-7:

Install a database(Mysql or Oracle).

Create a table which should contain at least the following fields: name, password, email-id, phone number(these should hold the data from the registration form).

Practice 'JDBC' connectivity.

Write a java program/servlet/JSP to connect to that database and extract data from the tables and display them. Experiment with various SQL queries.

Insert the details of the users who register with the web site, whenever a new user clicks the submit button in the registration page (week2).

Exercise-8:

Write a JSP which does the following job:

Create tables in the database which contain the details of items (books in our case like Book name, Price, Quantity, Amount) of each category. Modify your catalogue page (week 2) in such a way that you should connect to the database and extract data from the tables and display them in the catalogue page.

IMPLEMENT THE FOLLOWING USING PHP & MySQL

Exercise-9:

- i. Simple Arithmetic, Logical and Relation operation
- ii. Arrays

Exercise-10:

- i. String Handling

Exercise-11:

- i. Exception handling
- ii. Functions, Date & Time

Exercise-12:

- i. File Operations

Exercise-13:

- i. Various DDL, DML operations in MySQL

Exercise-14:

- i. Join Operations in MySQL.
- ii. Connection Establishment Between PHP and MySQL Database.

Course Outcomes:

- Design a Website using HTML and JavaScript
- Explore Server Side Technologies like Servlet and JSP
- Access Database from JSP Page
- Explore Knowledge of PHP and MySQL.

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