**Online Shopping Project**

**Introduction:**

This project is used to purchase the products in the online. The user can Login can able to register in this shopping cart. The user can able to select an d view the products. Then the user can place it into the cart. Then the user can move onto the placing order or checkout.

**Prerequisites:**

1. JSP requires JDK 1.7 or higher.
2. Java 7 or higher
3. Browser
4. HTML,CSS
5. JavaScript, Jquery and ajax.

**Installation:**

1. Download JBoss Wildfly 8.

**Task and Learning:**

**1. Analysing the Requirements:**

Collecting the Information about the Online shopping project. Indentifying the data’s which is to be used for designing the project.

**Learning:** Pre requirements for online shopping.

**2. Creating the database tables:**

Creating tables for Online shopping database.

**Leaning:** How to create tables in sql. Setting primary Key and Foreign key to the table columns.

Inserting and deleting data’s from the table using queries.

**3. Designing the page:**

Designing the main html page for the online shopping project.

**Learning:** html and css

**4. Creating Menus and submenus in the page:**

Creating menus and submenus in the header footer of the page.

**Learning:** CSS for menus and submenus.

**5. Storing Data’s in the database table**:

Storing data’s and downloading the equal size images. Storing the images in the folder and setting the image path in the product table.

**6. Crating the Login and Registration page:**

Designing the login and registration pages. Storing the values in the database table when ever new user registering in the page. Performing Authentication whenever old user trying to login.

**Learning:** by using jsp connecting with the database. Then storing new user values into the tables and performing login authentication when the registered user trying to login.

Jsp elements, Jsp lifecycle, Application program(JBoss wildfly 8) which is used to run a jsp file.

**JSP Actions:**

Jsp actions used to control the behavior of the servlet engine. You can dynamically insert a file, forward the user to another page.

**Attributes:**

There are two attributes that are all common to all elements.

**Id attribute:**

The id attribute uniquely identifies the Action element, and allows the action to be referenced inside the JSP page. If the Action creates an instance of an object the id value can be used to reference it through the implicit object PageContext

**Scope attribute:**

This attribute identifies the lifecycle of the Action element. The id attribute and the scope attribute are directly related, as the scope attribute determines the lifespan of the object associated with the id. The scope attribute has four possible values: (a) page, (b)request, (c)session, and (d) application.

**Reference:**

<http://www.tutorialspoint.com/jsp>

**JSP implicit objects:**

These are created by container while translating JSP page to Servlet source to help developers. We can use these objects directly in **scriptlets** that goes in service method, however we can’t use them in JSP Declaration because that code will go at class level.

1. out Object
2. request Object
3. response Object
4. application Object
5. session Object
6. page Object

**7. Displaying the products:**

Based on the category user choosing in the menus displaying that corresponding images in the page.

**Learning:** JavaScript ajax functions.

## Steps of AJAX Operation

1. A client event occurs
2. An XMLHttpRequest object is created
3. The XMLHttpRequest object is configured
4. The XMLHttpRequest object makes an asynchronous request to the Webserver.
5. Webserver returns the result containing XML document.
6. The XMLHttpRequest object calls the callback() function and processes the result.
7. The HTML DOM is updated

By using these steps we can perform the ajax operation in the javascript.

**8. Adding products into cart:**

Cart is a temporary storage. So we use cookies to store the product details.

**Learning:**

**Cookies:**

 cookies is the most efficient method of remembering and tracking preferences, purchases, commissions, and other information required for better visitor experience or site statistics.

**Cookie Variables:**

* **Expires :** The date the cookie will expire. If this is blank, the cookie will expire when the visitor quits the browser.
* **Domain :** The domain name of your site.
* **Path :** The path to the directory or web page that set the cookie. This may be blank if you want to retrieve the cookie from any directory or page.
* **Secure :** If this field contains the word "secure" then the cookie may only be retrieved with a secure server. If this field is blank, no such restriction exists.
* **Name=Value :** Cookies are set and retrieved in the form of key and value pairs.

# Storing Cookies:

The following syntax is used to store the values in the cookie.

**document.cookie = "key1=value1;key2=value2;expires=date";**

**Reading Cookies:**

The following syntax is used to get the cookie value based on cookie name.

getCookie(name);

**Deleting Cookies:**

We can also able to delete a cookie:

There are many number of ways to delete a cookie. By setting max age =0, we can delete a cookie.

**9. Removing items from the cart:**

By deleting the value in the cookie we can also remove the items from the cart.

**Learning:** How to delete a cookie and their values.

**10. Adding checkout button**:

We added the checkout button in the cart. If user clicks the checkout button after adding the items in the cart, login or registration page will opens. The registered user can able to sign in here and the new user can also able to register.

**Learning:** During Login session is used to store the corresponding username throught the application.

## The session Object:

## JSP makes use of servlet provided HttpSession Interface which provides a way to identify a user across more than one page request or visit to a Web site and to store information about that user.

## session.setAttribute (key, value);

This function is used to set the value in the session id with corresponding key and value.

**Session.getAttribute (key);**

This function is used to get the corresponding value stored in the session based on the key value.