Assignment 5

Title : Design web application using PHP, mysql, AJAX.

Problem statement :

Add Dynamic web application feature to previously selected application using PHP, mysql database connectivity.

Objective :

1) To study PHP to design web page and also study MySQL database connectivity in PHP.

2) To study how to use AJAX (control) in web page

Software and Hardware Requirements :

OS : fedora 20

IDE : netbeans 8.2

browser : Google Chrome

Theory :

PHP :

1) PHP stands for Hypertext Preprocessor. It is programming language used to design dynamic web pages. PHP was started as Open Source Project.

2) PHP is server side scripting language i.e embeded in HTML. It is used to manage dynamic content, database, session tracking, even build entire e-commerce site.

3) It is integrated with number of popular databases including MySQL, PostgreSQL, Oracle, Sybase. PHP support Large number of major protocols such as POP3, IMAP, PHP4.

4) Common uses of PHP:
   i) PHP can handles forms i.e gather data, save data to file:
   ii) You can add, delete, modify elements to your database
   iii) Access cookies variables and set cookies
   iv) It can encrypt data.

5) characteristics of PHP:
i) Simplicity
ii) Efficiency
iii) Security
iv) Flexibility

6) Sample program in PHP:

```
<html>
  <head>
    <title> Hello World </title>
  </head>
<body>
  <?php
    echo "Hello world";
  ?>
</body>
</html>
```

output : Hello World.

7] Database MySQL connectivity using PHP :

We need to setup a connection with database. For this we need url, user-id, user-password.

following PHP code is for database connectivity.

```php
<?php
$dbhost = 'localhost:3036';
$dbuser = 'guest';
$dbpass = 'guest123';
$conn = mysql_connect($dbhost, $dbuser, $dbpass);

if(!$conn){
    die('could not connect' . mysql_error());
}

echo 'connected successfully';
mysql_close($conn);
```

✓ Function mysql_query() is used to execute a SQL query. Following sample PHP code to execute a sql query

```php
<?php
$dbhost = 'local host:3036';
$dbuser = 'guest';
$dbpass = 'guest';
$conn = mysql_connect($dbhost, $dbuser, $dbpass);

if ($conn) {
    die('could not connect' . mysql_error());
}
```

```
echo 'connected successfully';
$sql = 'CREATE Database test_db';
$retval = mysql_query( $sql, $conn );

if( !$retval ){

    die('could not connect'. mysql_error());
}

echo "Database created successfully";
 mysql_close( $conn);
?>
```

✓ AJAX :

1) AJAX is web development technique for creating interactive web application. AJAX stands for Asynchronous JavaScript and XML. AJAX is a new technique for creating better, faster and more interactive web applications with the help of XML, HTML, CSS and Javascript.

2) AJAX uses XHTML for content, CSS for presentation, along with Document Object Model and Javascript

for dynamic content display.

3) conventional web application transmit information to and from ~~user~~ server using synchronous requests. It means you fill form, hit submit and get directed to new page

4) All the available browser cannot support AJAX. Here is list of major browser:
- ✓ Mozilla Firefox 1.0 and above
- ✓ Netscape version 7.1 and above
- ✓ Apple safari 1.2 and above
- ✓ Opera 7.6 and above

5) The whole AJAX operation is given in following steps:
1. A client event occurs
2. XMLHttpRequest object is created
3. XMLHttp Request object is configured
4. The webserver return the result containing XML document.
5. XMLHttpRequest object makes asynchronous request to Web server.
6. The HTML DOM is updated.

Following sample program for AJAX:

```
<html>
  <body>
    <div id = "demo">
    <h1> XMLHttpRequest object </h1>
    <button type = "button" onClick = "loadDoc()" >
      change content </button>
    </div>
    <script >
      function loadDoc () {
      var xhttp = new XMLHttpRequest ();

      xhttp.onreadystatechange = function() {
        if( this.readyState ==4 && this.status ==200)
        {
        document.getElementById ("demo").innerHTML =
                this.responseText ;
        }
      };

      xhttp.open(" GET " ," ajax_info.txt " , true);
      xhttp.send();
    }
    </script>
  </body>
</html>
```

✓ conclusion :

Thus, we have successfully implemented PHP, and AJAX code. p° with properties and database connectivity