CHAPTER-1

1. WEB DEVELOPING

Website is a collection of related web pages, including multimedia content, typically identified with a common domain name, and published on at least one web server. A website may be accessible via a public Internet Protocol (IP) network, such as the Internet, or a private local area network (LAN), by referencing a uniform resource locator (URL) that identifies the site.

Websites can have many functions and can be used in various fashions; a website can be a personal website, a commercial website for a company, a government website or a non-profit organization website. Websites are typically dedicated to a particular topic or purpose, ranging from entertainment and social networking to providing news and education. All publicly accessible websites collectively constitute the World Wide Web, while private websites, such as a company's website for its employees, are typically a part of an intranet.

Web developmentis a broad term for the work involved in developing a web site for the Internet (World Wide Web) or an intranet (a private network). Web development can range from developing the simplest static single page of plain text to the most complex web-based internet applications (or just 'web apps') electronic businesses, and social network services. A more comprehensive list of tasks to which web development commonly refers, may include web engineering, web design, web content development, client liaison, client-side/server-side scripting, web server and network security configuration, and e-commerce development. Among web professionals, "web development" usually refers to the main non-design aspects of building web sites: writing markup and coding..

1.1 Several Aspects Of Web Developing

Before developing a web site once should keep several aspects in mind like:

- What to put on the web site?
- Who will host it?
- How to make it interactive

- How to secure the source code frequently?
- Will the web site design display well in different browsers?
- Will the navigation menus be easy to use?
- Will the web site loads quickly?
- How easily will the site pages print?

1.2 Process

These are the steps considered while developing a webpage:

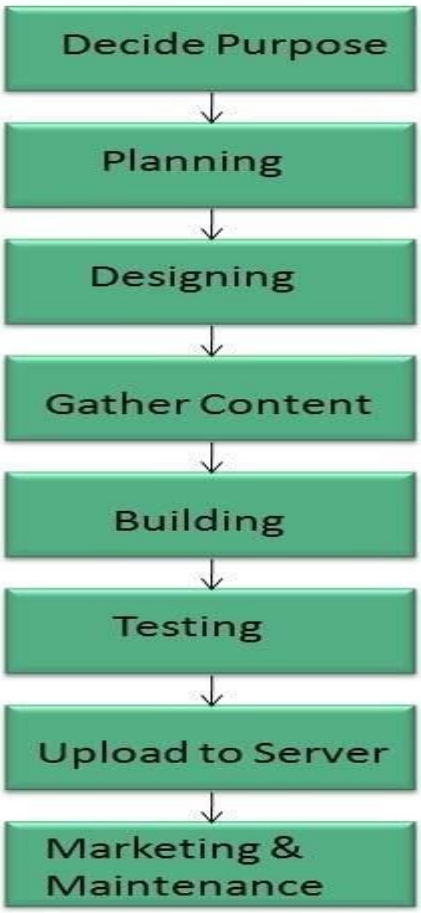

Fig 1- Web Developing Process

CHAPTER-2

2. HARDWARE AND SOFTWARE REQUIREMENT :

2.1 Hardwares Required:

TABLE 1-HARDWARES REQUIRED

Number	Description
1.	Pentium 4 ,Window XP/Window7
2.	256 MB RAM

2.2 Softwares Required:

TABLE 2-SOFTWARES REQUIRED

Number	Description
1.	Windows XP ,7
2.	Php 5.1
3.	MySql
4.	IIS server/ XAMPP
5.	HTML/CSS/ JavaScript

CHAPTER-3

3. TOOLS

3.1 Introduction

The Translate and Edit application had been planned to consist of two parts-front-end and back-end development. The front-end is the part of the web that you can see and interact with (e.g. Client-side programming). While front-end code interacts with the user in real time, the back-end interacts with a server to return user ready results. The front-end is a combination of HTML,CSS and JavaScript coding. By using JavaScript, modifications of the design of a web page can be made immediately, however only temporary and visible only by the user.

Normally the user would not have rights to modify web content dynamically on the server side. Logically, administrators are the ones who deal with back-end modification of databases for example, as they often contain sensitive data which should not be available to see or modify by the general public. These front-end and back-end tools includes languages like HTML,CSS,JavaScript ,PHP ,MYSQL etc.We will discuss all these languages in brief as given below.

3.2 Features

- ➢ Web Page Assests, Resources, and Network Information
- ➢ Profiing and Auditing

CHAPTER-4

4. HTML

4.1 Introduction

HTML (HyperText Mark-Up Language) is what is known as a "mark-up language" whose role is to prepare written documents using formatting tags. The tags indicate how the document is presented and how it links to other documents.

The **World Wide Web** (*WWW* for short), or simply the **Web**, is the worldwide network formed by all the documents (called " **web pages** ") which are connected to one another by hyperlinks.

Web pages are usually **organised** around a main page, which acts as a hub for browsing other pages with hyperlinks. This group of web pages joined by hyperlinks and centred around a main page is called a **website**.

The Web is a vast living archive composed of a myriad of web sites, giving people access to web pages that may contain formatted text, images, sounds, video, etc.

4.2 What is the Web?

The Web is composed of web pages stored on web servers, which are machines that are constantly connected to the Internet and which provide the pages that users request. Every web page, and more generally any online resource, such as images, video, music, and animation, is associated with a unique address called a URL .The key element for viewing web pages is the **browser**, a software program which sends requests to web servers, then processes the resulting data and displays the information as intended, based on instructions in the HTML page.

The most commonly used browsers on the Internet include:

- Mozilla Firefox,
- Microsoft Internet Explorer,
- Netscape Navigator,

- ➢ Safari,
- ➢ Opera

4.3 Versions Of HTML:

HTML was designed by *Tim Berners-Lee*, at the time a researcher at CERN (**C**hinese**E** cosystem **R**esearch**N** etwork**)**, beginning in 1989. He officially announced the creation of the Web on Usenet in August 1991. However, it wasn't until 1993 that HTML was considered advanced enough to call it a language (HTML was then symbolically christened *HTML 1.0*).

RFC 1866, dated November 1995, represented the first official version of HTML, called HTML 2.0. After the brief appearance of HTML 3.0, which was never officially released, HTML 3.2 became the official standard on January 14, 1997. The most significant changes to HTML 3.2 were the standardization of tables, as well as many features relating to the presentation of web pages.

On December 18, 1997, HTML 4.0 was released. Version 4.0 of HTML was notable for standardizing style sheets and frames. HTML version 4.01, which came out on December 24, 1999, made several minor modifications to HTML 4.0.

Example-

```
<HTML>
<HEAD>
</HEAD>
<BODY>
<H5>THIS IS AN EXAMPLE</H5>
</BODY>
</HTML>
```

CHAPTER-5

5. CSS:

5.1 What Is CSS?

- ➢ CSS stands for Cascading Style Sheets.
- ➢ CSS describes how HTML elements are to be displayed on screen, paper, or in other media .
- ➢ CSS saves a lot of work. It can control the layout of multiple web pages all at once
- ➢ External stylesheets are stored in CSS files.
- ➢ CSS describes how HTML elements should be displayed.
- ➢ CSS Saves a Lot of Work! The style definitions are normally saved in external .css files.
- ➢ With an external stylesheet file, we can change the look of an entire website by changing just one file!
- ➢ CSS can be either external or internal.

5.2 CSS Syntax:

A CSS rule-set consists of a selector and a declaration block:

CSS selector: The selector points to the HTML element you want to style.

The declaration block contains one or more declarations separated by semicolons.

Each declaration includes a CSS property name and a value, separated by a colon.

A CSS declaration always ends with a semicolon, and declaration blocks are surrounded by curly braces.

The **External CSS**can be declared in the required HTML page as:

<link rel="stylesheet" href="CSS_file_name “.**css**”>

The External CSS file is saved by using the **.css**extension ,whereas the internal CSS is saved in corresponding HTML file using the **<style>**tag. Using External CSS is much better than using Internal . **Here are a few reasons this is better.**

- ➢ Easier Maintenance
- ➢ Reduced File Size

- ➢ Reduced Bandwidth
- ➢ Improved Flexibility

The selectors that can be used to select the HTML part are-

- ➢ Id selector
- ➢ Class selector

5.2.1 Id Selector:

The id selector uses the id attribute of an HTML element to select a specific element.The id of an element should be unique within a page, so the id selector is used to select one unique element! To select an element with a specific id, write a hash (#) character, followed by the id of the element. The style rule below will be applied to the HTML element with id="para1":

Example-

Suppose the HTML content is as follow,

```
<h1 id=”para1”>content</h1>
```

Then Id will be declared as

```
#para1 {
text-align: center;
color:blue;
font-family:jokerman;
}
```

5.2.2 The class Selector:

The class selector selects elements with a specific class attribute.

To select elements with a specific class, write a period (.) character, followed by the name of the class.

Example-

```
.para1
{
text-align: center;
color:blue;
font-family: Jokerman;
}
```

5.3 CSS Comments:

Comments are used to explain the code, and may help when you edit the source code at a later date. Comments are ignored by browsers. A CSS comment starts with /* and ends with */. Comments can also span multiple lines.

Example-

```
.para1
{
text-align: center;
color:blue;
font-family: Jokerman; /*  this is the single line comment*/
}
```

In the example above, all HTML elements with class=para1" will be blue and center-aligned.

5.4 CSS Styles:

- Background properties
- Border properties
- Padding
- Margin
- Color
- Font properties
- Text propertiesLink properties / Navigation bar properties

CHAPTER-6

6. JAVASCRIPT:

6.1 What is JavaScript?

JavaScript is *an object-based scripting language* that is lightweight and cross-platform. JavaScript is not compiled but translated. The JavaScript Translator (embedded in browser) is responsible to translate the JavaScript code.

It is mainly used for:

- Client-side validation
- Dynamic drop-down menus.
- Displaying data and time.
- Displaying popup windows and dialog boxes (like alert dialog box, confirm dialog box and prompt dialog box).
- Displaying clocks etc.

Example of JavaScript-

```
<h2>Welcome to JavaScript</h2>

<script>

document.write("Hello JavaScript by JavaScript");

</script>
```

Here , <script> tag is used to initialize the script and document.write() is a function used to write.

Like CSS, JavaScript also can be can be placed in:

1. Between the body tag of html
2. In .js file (external javaScript)
3. Between the head tag of html

6.1.1 JavaScript Example: code between the body tag –

In the given example, we have displayed the dynamic content using JavaScript. Let's see the simple example of JavaScript that displays alert dialog box.

```
<script type="text/javascript">
alert("Hello Javatpoint");
</script>
```

6.1.2 JavaScript Example : code in .JS file –

- **message.js file**

```
function msg()
{
alert("Hello Javatpoint");
}
```

- **index.html**

```
<head>
<script type="text/javascript" src="message.js"></script>
</head>
<body>
<p>Welcome to JavaScript</p>
<form>
<input type="button" value="click" onclick="msg()"/>
</form>
</body>
```

We can create external JavaScript file and embed it in many html page.

It provides **code re usability** because single JavaScript file can be used in several html pages.An external JavaScript file must be saved by .js extension. It is recommended to embed all JavaScript files into a single file. It increases the speed of the webpage.

6.1.3 Between the head tag of html

In the example given below, we are having a function msg() which is called. To create a function, we use function name with keyword **function.** For function call , we need to have an event.

Example-

```
<head>
<script type="text/javascript">
function msg()
{
alert("Hello Javatpoint");
}
</script>
</head>
<body>
<p>Welcome to JavaScript</p>
<form>
<input type="button" value="click" onclick="msg()"/>
</form>
</body>
```

6.2 How To Change Content Of HTML using a JavaScript?

One of many JavaScript HTML methods is **getElementById()**.

This example uses the method to "find" an HTML element (with id="demo") and changes the element content (**innerHTML**) to "Hello JavaScript":

Example –

```
document.getElementById("demo").innerHTML = "Hello JavaScript";
document.getElementById("demo").style.fontSize = "25px";

<html>

<head>

<script>
function myFunction()

{
        document.getElementById("demo").innerHTML = "Paragraph changed.";
}
</script>
</head>

<body>

<h1>My Web Page</h1>

<p id="demo">A Paragraph</p>

<button type="button" onclick="myFunction()">Try it</button>



</body>
</html>
```

6.3 Comments In JavaScript:

The **JavaScript comments**are meaningful way to deliver message. It is used to add information about the code, warnings or suggestions so that end user can easily interpret the code.The JavaScript comment is ignored by the JavaScript engine i.e. embedded in the browser.

6.3.1 Advantages of JavaScript comments:

There are mainly two advantages of JavaScript comments.

- **To make code easy to understand:** It can be used to elaborate the code so that end user can easily understand the code.
- **To avoid the unnecessary code:** It can also be used to avoid the code being executed. Sometimes, we add the code to perform some action. But after sometime, there may be need to disable the code. In such case, it is better to use comments.

Example-

```
<script type="text/javascript">
function msg()
{
alert("Hello Javatpoint"); /*      this is a comment*/
}
</script>
```

6.4 JavaScript Variable:

A **JavaScript variable**is simply a name of storage location. There are two types of variables in JavaScript : local variable and global variable.There are some rules while declaring a JavaScript variable (also known as identifiers).

- Name must start with a letter (a to z or A to Z), underscore(_), or dollar($) sign.
- After first letter we can use digits (0 to 9), for example value1.

JavaScript variables are case sensitive, for example x and X are different variables.

6.5 JavaScript Form Validation:

It is important to validate the form submitted by the user because it can have inappropriate values. So validation is must.

The JavaScript provides you the facility the validate the form on the client side so processing will be fast than server-side validation. So, most of the web developers prefer JavaScript form validation.

Through JavaScript, we can validate name, password, email, date, mobile number etc fields.

Example-

```
<script>
function validateform()
{
var name=document.myform.name.value;
var password=document.myform.password.value;
if (name==null || name=="")
{
alert("Name can't be blank");
return false;
}
else if(password.length<6)
{
alert("Password must be at least 6 characters long.");
```

```
return false;

}

}

</script>

<body>

<form name="myform" method="post" action="abc.jsp" onsubmit="return validatefor
m()">

Name: <input type="text" name="name"><br/>

Password: <input type="password" name="password"><br/>

<input type="submit" value="register">

</form>

</body>
```

In this example, we are going to validate the name and password. The name can’t be empty and password can’t be less than 6 characters long.Here, we are validating the form on form submit. The user will not be forwarded to the next page until given values are correct.

6.5.1 JavaScript Retype Password Validation:

```
<script type="text/javascript">

function matchpass()

{

var firstpassword=document.f1.password.value;

var secondpassword=document.f1.password2.value;

if(firstpassword==secondpassword)

{

return true;
```

```
}
else
{
alert("password must be same!");
return false;
}
}
</script>
<form name="f1" action="register.jsp" onsubmit="return matchpass()">
Password:<input type="password" name="password" /><br/>
Re-enter Password:<input type="password" name="password2"/><br/>
<input type="submit">
</form>
```

6.6 JavaScript Functions:

JavaScript functions are used to perform operations. We can call JavaScript function many times to reuse the code.

6.6.1 Advantage of JavaScript function

There are mainly two advantages of JavaScript functions.

- **Code reusability**
- **Less coding**

6.5.2 JavaScript Function Syntax

The syntax of declaring function is given below.

```
function functionName([arg1, arg2, ...argN])

{

//code to be executed

}
```

JavaScript Functions can have 0 or more arguments.

Example-

```
<script>

function msg()

{

alert("hello! this is message");

}

</script>

<input type="button" onclick="msg()" value="call function"/>
```

Output of the above example:

hello! this is message

6.7 JavaScript Control Statements:

6.7.1 If-else:

It evaluates the content whether condition is true or false. The syntax of JavaScript if-else statement is given below.

```
if(expression)

{

//content to be evaluated if condition is true

}

else
```

```
{
//content to be evaluated if condition is false
}
```

Example -

```
<script>
var a=20;
if(a%2==0)
{
document.write("a is even number");
}
else
{
document.write("a is odd number");
}
</script>
```

6.7.2 JavaScript Switch:

The **JavaScript switch statement** is used *to execute one code from multiple expressions* . It is just like else if statement that we have learned in previous page. But it is convenient than *if..else..if*because it can be used with numbers, characters etc.The signature of JavaScript switch statement is given below.

```
switch(expression){
```

```
    case value1:
    code to be executed;
    break;
    case value2:
    code to be executed;
break;
default: code to be executed if above values are not matched;
}
```

CHAPTER-7

7. INTRODUCTION TO PHP:

7.1 What is PHP?

PHP is a open source, interpreted and object-oriented scripting language i.e. executed at server side. It is used to develop web applications (an application i.e. executed at server side and generates dynamic page).

- ➢ PHP stands for HyperText Preprocessor.
- ➢ PHP is a server side scripting language.
- ➢ PHP is an interpreted language, i.e. there is no need for compilation.
- ➢ PHP is an object-oriented language.
- ➢ PHP is an open-source scripting language.
- ➢ PHP is simple and easy to learn language.

7.2 History of PHP:

PHP (PHP: Hypertext Preprocessor) was created by Rasmus Lerdorf in 1994. It was initially developed for HTTP usage logging and server-side form generation iUnix.

PHP 2 (1995) transformed the language into a Server-side embedded scripting language. Added database support, file uploads, variables, arrays, recursive functions, conditionals, iteration, regular expressions, etc.

PHP 3 (1998) added support for ODBC data sources, multiple platform support, email protocols (SNMP,IMAP), and new parser written by Zeev Suraski and Andi Gutmans . **PHP 4 (2000)** became an independent component of the web server for added efficiency. The parser was renamed the Zend Engine. Many security feature were added. **PHP 5 (2004)** adds Zend Engine II with object oriented programming, robust XML support using the libxml2 library, SOAP extension for interoperability with Web Services, SQLite has been bundled with PHP.

7.3 Features of PHP:

There are given many features of PHP.

- ➢ **Performance**: Script written in PHP executes much faster then those scripts written in other languages such as JSP & ASP.

- **Open Source Software** : PHP source code is free available on the web, you can developed all the version of PHP according to your requirement without paying any cost.
- **Platform Independent**: PHP are available for WINDOWS, MAC, LINUX & UNIX operating system. A PHP application developed in one OS can be easily executed in other OS also.
- **Compatibility**: PHP is compatible with almost all local servers used today like Apache, IIS etc.
- **Embedded**: PHP code can be easily embedded within HTML tags and script.

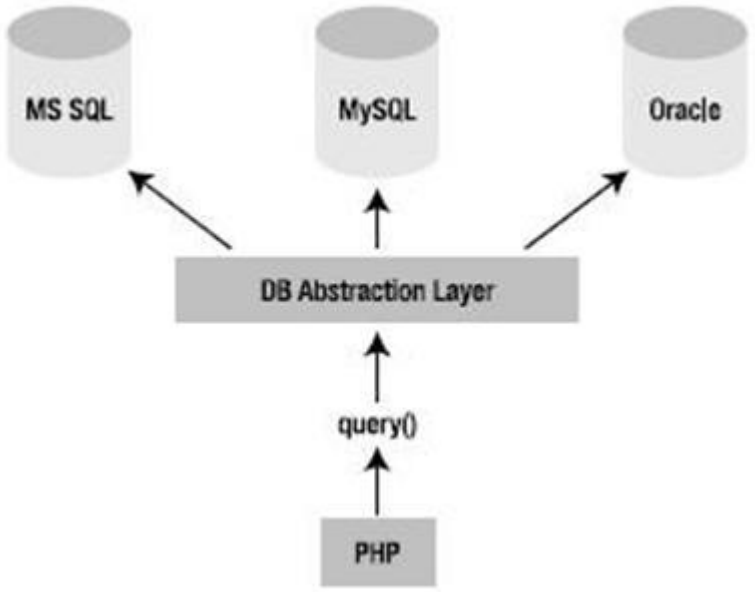

FIG 2-FEATURES OF PHP

7.4 A PHP code:

Note:= write HTML tags + PHP code and save this file with .php extension.

File: hello.php

```
<html>
<body>
<?php
echo "<h2>Hello by PHP</h2>";
?>
```

</body>
</html>

7.5 Install PHP:

To install PHP, use to install AMP (Apache, MySQL, PHP) software stack. It is available for all operating systems. There are many AMP options available in the market that are given below:

- **WAMP** for Windows
- **LAMP**for Linux
- **MAMP**for Mac(Macintosh)
- **SAMP**for Solaris
- **FAMP** for FreeBSD
- **XAMPP**(Cross, Apache, MySQL, PHP, Perl) for Cross Platform.

CHAPTER-8

8. MYSQL:

MySQL (My S-Q-L, or "My sequel") is a relational database management system (RDBMS) which has more than 6 million installations. MySQL stands for "My Structured Query Language". The program runs as a server providing multi-user access to a number of databases.

8.1 Uses:

MySQL is used in web applications and acts as the database component of the LAMP software stack. Its popularity for use with web applications is closely tied to the popularity of PHP, which is often combined with MySQL. Several high-traffic web sites (including Flickr, Facebook, Wikipedia, Google (though not for searches), Nokia, Auctionmarts and YouTube) use MySQL for data storageand logging of user data.

8.2 Features:

- A broad subset of ANSI SQL 99, as well as extensions
- Cross-platform support
- Stored procedures
- Triggers
- Cursors
- Strict mode
- Updatable Views
- Query caching
- Sub- SELECTs (i.e. nested SELECTs)
- Replication with one master per slave, many slaves per master, no automatic support for multiple masters per slave.

CHAPTER-9

9. PHP/ MYSQL : WEB APPLICATION DEVELOPMENT

PHP and MySQL are two leading open-source scripting and database technologies for web designers today. They run on both linux and windows servers so your web host most likely supports it. With the advent of PH5, PHP language has evolved to be an object oriented programming language enabling more robust and standards based web applications..
Community websites leverages both PHP and MYSQL to build rich database driven dynamic and interactive websites and website applications. Our services include PHP and MySQL web development, open source shopping carts, PHP, MySQL offshore development and PHP programming services. We have a team of experienced coders dedicated to work on any php/mysql project and have it delivered on time, per your specifications.
PHP (or PHP Hypertext Preprocessor) is a server-side scripting language that is used to create dynamic web pages that can interact with databases. It is a widely-used open source language that is specifically used for web application development and can be embedded within HTML.

9.1 Why PHP?

The distinguishing feature of PHP is that the scripting code is executed on the server, which generates HTML that is sent back to the client. The client receives the result of executing the script without knowing the underlying code. Developers can configure the web server to process all the HTML files (containing the PHP script).

9.2 Using PHP with a database system

PHP, as a scripting language, is popular among web developers because of its ability to interact with database systems including Oracle and MySQL.This article discusses the use of PHP scripting

language with the MySQL database. Any website can require a variety of data or information to display and to retrieve them from the database. This can include display of a simple list to the running of the website based on data stored in the database.

Listed below are some examples where PHP and MySQL can be used together:

- ➢ Digital Ad banners, where the PHP script can be used to retrieve a digital banner from the database, which then selects a random banner from its table records and sends it back to the calling script. The PHP script can also maintain a count of banner views and clicks from the website.

- ➢ Internet forums or digital boards, which use PHP and MySQL to store and retrieve user messages.
- ➢ Website designing, where the design of an entire website can be changed using a couple of PHP scripts, instead of changing and uploading each web page. The PHP script can .access the MySQL database to retrieve all information about the web page.

SQLi command embedded in PHP :As given in figure-3,we can insert SQL commands in PHP script

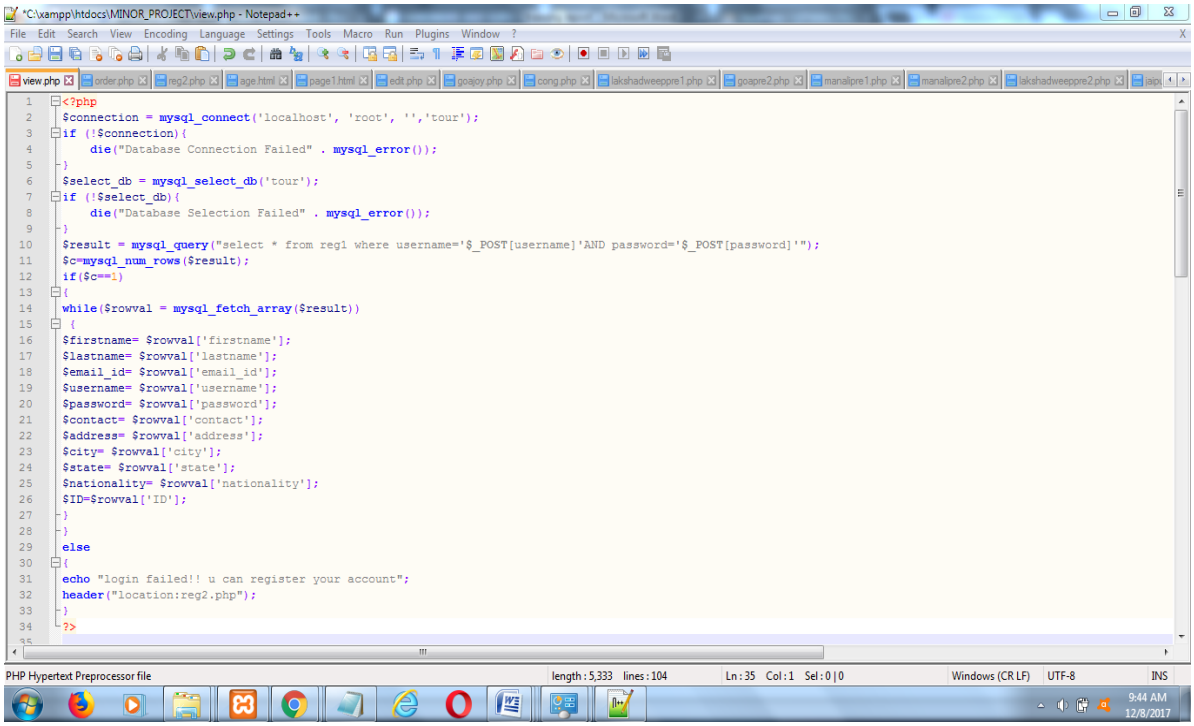

FIG3- SQLi command embedded in PHP

The command used to display the firstname:

<?php echo $lastname; ?>

The output webpage would be:

.

FIG4- WEBPAGE DISPLAYED BY APPLYING SQL COMMANDS EMBEDDED IN PHP

9.3 Executing PHP commands

After configuring and connecting to the MySQL database, you can start executing PHP commands on the server.Following are the 2 methods of executing a PHP commandEntering the command in PHP using the following syntax:

Mysql_query($query)

This form of command can be used to repeat the command simply by changing the variable.Defining the command as a variable. The result of the operation will be assigned to the variable

9.4 Introduction to Apache/ISS Server

If you host a website, chances are good that you are running either Apache or Internet Information Services (IIS). They are by far the two most common web server platforms, between them commanding about 70% of the market.Apache, or to use its full royal title The Apache HTTP web server, is an open source Web server application managed by the Apache Software Foundation. The server software is freely distributed, and the open source license means users can edit the underlying code to tweak performance and contribute to the future development of the program – a major source of its beloved status among its proponents. Support, fixes and development are handled by the loyal user community and coordinated by the Apache Software Foundation.IIS (Internet Information Services) is Microsoft's web server offering, playing second fiddle to market leader Apache. As is expected of a core Microsoft product, it only runs and is bundled on Windows operating systems, but is otherwise free for use. It is a closed software product and supported by solely by Microsoft. Although development is not as open and quick as the open-source user-supported nature of Apache, a behemoth like Microsoft can throw formidable support and development resources at its products, and IIS has fortunately benefitted from this.

TABLE-3 COMPARISION OF IIS AND APACHE

Feature	ISS	Apache
Supported OS	Windows	Linux, Unix, Windows, Mac OS
Development	Closed	Open source
Cost	Free,bundled with windows	Free
Performance	Good	Good
Security	Excellent	Good

CONCLUSION:

In a nutshell, this internship has been an excellent and rewarding experience. I can conclude that there have been a lot I've learnt from my work at the training &research centre. Needless to say, the technical aspects of the work I've done are not flawless and could be improved provided enough time.

As someone with no prior experience in JavaScript whatsoever I believe my time spent in training and discovering new languages was well worth it and contributed to finding an acceptable solution to an important aspect of web design and development. Two main things that I've learned the importance of are time-management skills and self-motivation. Although I have often stumbled upon these problems at University, they had to be approached differently in a working environment.

Working with web development languages has increased my interest in them, hence prompting me to transfer to the Web Design and Development course at my college.