Experiment No.1

1. What is full stack development?

Full stack development refers to **the end-to-end application software development, including the front end and back end**. The front end consists of the user interface, and the back end takes care of the business logic and application workflows.

2. What is front end?

Front-end web development is the development of the graphical user interface of a website, through the use of HTML, CSS, and JavaScript, so that users can view and interact with that website.

3. What is back end?

It refers to the server-side development of web application or website with a primary focus on how the website works. It is responsible for managing the database through queries and APIs by client-side commands. This type of website mainly consists of three parts front end, back end, and database.

PHP,c++,Java,python,Javascript,Node.js

Database- SQL,MongoDB,Oracle

4. Which languages are front end languages?

HTML,CSS,Javascript

5. Which languages are back end languages?

PHP,c++,Java,python,Javascript,Node.js

Database- SQL,MongoDB,Oracle

6. What is mean by LAMP?

LAMP Stack: Linux, Apache, MySQL and PHP.

7. What is mean by MEAN?

MEAN Stack: MongoDB, Express, AngularJS and Node.js.

8. Which databases are used in full stack development?

Database- SQL,MongoDB,Oracle

9. What are the advantages and disadvantages of full stack development?

Adavantages-

- o **They can carry out several tasks**
- o **Preferable for Small Budget Projects**
- o **Adaptability**

Disadavantages-

- **Under productivity and time management**
- **Not able to keep up with the trends**
- **Confusion about their responsibilities**

Experiment No.2

1. What is HTML?

The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.

2. What are tags?

\<audio>

\<!DOCTYPE>

\<body>

\

\<button>

\<header>

3. Do all HTML tags have end tag?

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4. What is the difference between HTML elements and tags?

HTML tags are used to hold the HTML element. HTML element holds the content. HTML attributes are used to describe the characteristic of an HTML element in detail. Whatever written within a HTML tag are HTML elements.

5. What is semantic HTML?

Semantic HTML is the use of HTML markup to reinforce the semantics, or meaning, of the information in web pages and web applications rather than merely to define its presentation or look. Semantic HTML is processed by traditional web browsers as well as by many other user agents.

6. What is image map?

In HTML and XHTML, an image map is a list of coordinates relating to a specific image, created in order to hyperlink areas of the image to different destinations. For example, a map of the world may have each country hyperlinked to further information about that country.

7. Does a hyperlink only apply to text?

A hyperlink can be a piece of text, an image, an icon, or a graphic that, when you click on it, points to and navigates you to a different webpage or document. It can also point to a specific section or element within the same webpage or document.

8. What is a marquee?

The <marquee> HTML element is **used to insert a scrolling area of text**. You can control what happens when the text reaches the edges of its content area using its attributes.

9. How many tags can be used to separate section of texts?

There are **three** tags that can be used to separate the texts: <br> tag – Usually <br> tag is used to separate the line of text. It breaks the current line and conveys the flow to the next line.

10. What are empty elements?

Some HTML elements have no content (like the <br> element). These elements are called empty elements. Empty elements do not have an end tag!

Experiment No.3

1. What is LAMP SERVER?

A LAMP stack is a bundle of four different software technologies that developers use to build websites and web applications. LAMP is an acronym for the operating system, Linux; the web server, Apache; the database server, MySQL; and the programming language, PHP. All four of these technologies are open source, which means they are community maintained and freely available for anyone to use. Developers use LAMP stacks to create, host, and maintain web content. It is a popular solution that powers many of the websites you commonly use today.

2. Define WAMP SERVER ?

WampServer refers to a solution stack for the Microsoft Windows operating system, created by Romain Bourdon and consisting of the Apache web server, OpenSSL for SSL support, MySQL database and PHP programming language.

3. State MAMP SERVER ?

MAMP is a free, local server environment that can be installed under macOS and Windows with just a few clicks. MAMP **provides them with all the tools they need to run WordPress on their desktop PC for testing or development purposes**, for example. You can even easily test your projects on mobile devices.

4. Explain XAMP SERVER ?

XAMPP is an abbreviation where *X stands for Cross-Platform, A stands for Apache, M stands for MYSQL, and the Ps stand for PHP and Perl*, respectively. It is an open-source package of web solutions that includes Apache distribution for many servers and command-line executables along with modules such as Apache server, MariaDB, PHP, and Perl.

5. How does LAMP and WAMP differ?

Basis	XAMPP	MAMP	WAMP	LAMP
Supporting Platforms.	It is a cross-platform software package supported by platforms like Linux, Windows, and Mac OS.	This stack of software is only for the MAC operating system.	WAMP local server is only supported by Windows Operating system.	LAMP is supported by a single platform i.e., Linux based systems.
Programming Languages	The programming/ scripting languages used for development in XAMPP are Perl and PHP.	The coding for the development and testing is done by using PHP in the MAMP server.	WAMP uses PHP (a script-based programming language) for development and testing.	Unlike other similar local servers, LAMP is multi-lingual in terms of development. It supports coding done in PHP, Perl, and Python.
Database	XAMPP uses MariaDB, which is a relational database management system. It was developed by MySQL.	MAMP stores its data in a relational database. It uses MySQL for data storage and retrieval.	Just like MAMP, WAMP uses MySQL, which is an RDBMS for storing and retrieving operations on data.	LAMP supports its data storage function and other data-based operations using MySQL RDBMS.
Servers	Apache Server is used for testing and running webpages of local hosts.	It uses Apache webserver.	WAMP uses the Apache Web server.	LAMP, like the other local servers, uses Apache Web server.
Installation Process	The installation process is easy but may differ for different platforms	Very easy process of installation. It takes just a few clicks and minutes.	Easy to download & install and it is also light- weighted.	LAMP is handy to install and run.

6. What is setup file?

a file needed to set up or install a computer program.

7. State client side scripting?

Client-side scripting simply means **running scripts, such as JavaScript, on the client device, usually within a browser**. All kinds of scripts can run on the client side if they are written in JavaScript, because JavaScript is universally supported.

8. Explain server side scripting?

Server-side scripting is **a technique used in web development which involves employing scripts on a web server which produces a response customized for each user's (client's) request to the website**. The alternative is for the web server itself to deliver a static web page.

9. State the main difference between $message and $$message?

Explain the difference between $message and $$message? **$message is used to store variable data. $$message can be used to store variable of a variable. Data stored in $message is fixed while data stored in $$message can be changed dynamically**.

10. How you will define a Session ?

A session is **a group of user interactions with your website that take place within a given time frame**. For example a single session can contain multiple page views, events, social interactions, and ecommerce transactions.

Experiment No.6

1. What is CSS?

Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

2. State advantages of using CSS?

- 1) Faster Page Speed. More code means slower page speed. ...
- 2) Better User Experience. CSS not only makes web pages easy on the eye, it also allows for user-friendly formatting. ...
- 3) Quicker Development Time. ...
- 4) Easy Formatting Changes. ...
- 5) Compatibility Across Devices.

3. Define the components of a CSS style?

The components of css style are: 1)Selecter:HTML element name, id name, class name. 2)Property:It's like an attribute such as background color,font-size,position,text-align,color,border etc. 3)Values:which defines property or values allocate for properties.

4. What is type selector?

Type selectors

A type selector is sometimes referred to as a tag name selector or element selector because it **selects an HTML tag/element in your document**. In the example below, we have used the span , em and strong selectors. Try adding a CSS rule to select the <h1> element and change its color to blue.

5. What is universal selector?

The universal selector is **a special type selector and can therefore be namespaced when using @namespace** . This is useful when dealing with documents containing multiple namespaces such as HTML with inline SVG or MathML, or XML that mixes multiple vocabularies. ns|* - matches all elements in namespace ns.

6. Explain class selector?

class selector is **used to select all elements which belong to a particular class attribute**. In order to select the elements with a particular class, use the period (.) character specifying the class name ie., it will match the HTML element based on the contents of their class attribute.

7. Can you make a class selector particular to an element type?

You can create a selector that will target specific elements with the class applied.

8. What is attribute selector?

[attribute] Selector: This type of attribute selector is **used to select all the elements that have the specified attribute and applies the CSS property to that attribute**. For example the selector [class] will select all the elements with the style attribute.

9. How CSS style overriding works>

CSS allows you to apply styles to web pages. More importantly, CSS enables you to do this independent of the HTML that makes up each web page. Overriding: Overriding in CSS means that **you are providing any style property to an element for which you have already provided a style**.

10. How to select all paragraph elements with a Lang attribute?

p[lang] − Selects all paragraph elements with a lang attribute. p[lang="fr"] − Selects all paragraph elements whose lang attribute has a value of exactly "fr". p[lang~="fr"] − Selects all paragraph elements whose lang attribute contains the word "fr".

Experiment No.7

1. What is javaScript?

JavaScript, often abbreviated as JS, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries.

2. Enumerate the difference between java and javaScript?

What is the Difference between Java and JavaScript? **Java is an OOP programming language, and it helps to create applications that function in a virtual machine or browser, while JavaScript is an OOP scripting language**. Also, the JavaScript code runs on a browser only.

3. What are javaScript types?

The Eight Types of JavaScript. JavaScript has 8 types: **undefined, null, boolean, number, bigint, string, symbol, and object**.

4. What is the use of isNAN function?

The JavaScript isNaN() Function is used **to check whether a given value is an illegal number or not**. It returns true if the value is a NaN else returns false. It is different from the Number. isNaN() Method.

5. Between javaScript and an ASP Scipt, which is faster?

In between JavaScript and ASP script, **JavaScript is faster than ASP script**. Because, JavaScript is restricted to browser side scripting, it cannot process server-side functions like connecting to a database and performing operations on it.

6. What is negative infinity?

NEGATIVE_INFINITY is **a special numeric value that is returned when an arithmetic operation or mathematical function generates a negative value greater than the largest representable number in JavaScript** (i.e., more negative than -Number. MAX_VALUE) . JavaScript displays the NEGATIVE_INFINITY value as -Infinity .

7. Is it possible to break JavaScript code into several lines?

There are two ways to break JavaScript code into several lines: **We can use the newline escape character i.e "\n"**. if we are working on the js file or not rendering the code to the html page. We can use the <br> tag.

8. What are undeclared and undefined variables?

Undefined variable means a variable has been declared but does not have a value. Undeclared variable means that the variable does not exist in the program at all.

9. Write the code for adding new elements dynamically?

Syntax: **document. createElement("<tagName>");** // Where <tagName> can be any HTML // tagName like div, ul, button, etc. // newDiv element has been created For Eg: let newDiv = document. createElement("div");

10. Define a prompt box?

A prompt box is **often used if you want the user to input a value before entering a page**. When a prompt box pops up, the user will have to click either "OK" or "Cancel" to proceed after entering an input value. If the user clicks "OK" the box returns the input value.

Experiment No.8

1. What does PHP stand for?

PHP: Hypertext Preprocessor

2. PHP server scripts are surrounded by delimiters, which?

3. How do you write "Hello World" in PHP

<?php

echo "Hello, World!";

?>

4. All variables in PHP start with which symbol?

Rules for PHP variables: A variable starts with the **$ sign**, followed by the name of the variable. A variable name must start with a letter or the underscore character. A variable name cannot start with a number.

5. What is the correct way to end a PHP statement?

Note: PHP statements end with a **semicolon (;)**.

6. The PHP syntax is most similar to which programming language?

Explanation: PHP is similar to the **C style syntax** in terms of keywords and language syntax. If conditions, for and while loops, and function returns are similar in syntax to languages such as C, C++, C#, Java and Perl.

7. How do you get information from a form that is submitted using the "get" method?

The Correct Answer is " **Request**.

8. When using the POST method, variables are displayed in the URL:

Question 7True or False: When using the POST method, variables are displayed in the URL. Select one:**TrueFalse**The correct answer is 'False'.

9. In PHP you can use both single quotes (' ') and double quotes ("") for strings: is it true?

Yes. It is slightly faster to use single quotes. PHP won't use additional processing to interpret what is inside the single quote. when you use double quotes PHP has to parse to check if there are any variables within the string.

10. Is it true Include files must have the file extension ".inc"?

False. It is not necessary that includes f…

Experiment No.9

1. What is MySQL?

MySQL is an open-source relational database management system. Its name is a combination of "My", the name of co-founder Michael Widenius's daughter My, and "SQL", the acronym for Structured Query Language.

2. What is the advantage of MySQL?

The MySQL system is unique in that it **assures continuous uptime**. Aside from that, it provides a plethora of options, such as slave/master replication settings and unique cluster servers. MySQL is at the top of the list of fast transactional database solutions available today.

3. How will you close a MySql database using PHP?

Definition and Usage. **The close() / mysqli_close() function** closes a previously opened database connection.

4. How can we communicates with MySQL server?

1. Locate the MySQL Command-Line Client. ...
2. Run the client. ...
3. Enter your password. ...
4. Get a list of databases. ...
5. Create a database. ...
6. Select the database you want to use. ...
7. Create a table and insert data. ...
8. Finish working with the MySQL Command-Line Client.

5. How can you connect to MySQL from PHP?

6. What is the use of mysql_query() function ?

mysql_query() **sends a query to the currently active database on the server that's associated with the specified link identifier**. If link_identifier isn't specified, the last opened link is assumed. If no link is open, the function tries to establish a link as if mysql_connect() was called with no arguments, and use it.

7. How can we create a database using PHP and MySQL?

8. Explain phpMyAdmin?

9. How to repair a table in MySQL ?

1. REPAIR [NO_WRITE_TO_BINLOG | LOCAL]
2. TABLE tbl_name [, tbl_name] ...
3. [QUICK] [EXTENDED] [USE_FRM]

10. What is a trigger and does MySQL support triggers ?

A trigger is defined to activate when a statement inserts, updates, or deletes rows in the associated table. These row operations are trigger events. For example, rows can be inserted by INSERT or LOAD DATA statements, and an insert trigger activates for each inserted row.

Experiment No.10

1. What is Ajax?

Ajax is a set of web development techniques that uses various web technologies on the client-side to create asynchronous web applications. With Ajax, web applications can send and retrieve data from a server asynchronously without interfering with the display and behaviour of the existing page.

2. Why Ajax is used?

AJAX is **a technique for creating fast and dynamic web pages**. AJAX allows web pages to be updated asynchronously by exchanging small amounts of data with the server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page.

3. What files need to install to use Ajax in Website?

AJAX just uses a combination of:

1. A browser built-in XMLHttpRequest object (to request data from a web server)
2. JavaScript and HTML DOM (to display or use the data)

4. What library are available to use the Ajax?

Echo for Ajax servlets. FormEngine a framework for easy creation of dynamic forms. Google Web Toolkit a widget library with a Java to JavaScript compiler. ItsNat a server-side Java framework focused on single-page interface applications.

5. What Browsers support Ajax?

Ajax is supported in all modern browsers. We suggest using the following browsers:

- Google Chrome.
- Mozilla Firefox.
- Apple Safari.
- Opera.
- Microsoft Edge.
-

6. How we can send data to server using Ajax?

Syntax: **$.post(URL,data,callback);** The required URL parameter specifies the URL you wish to request. The optional data parameter specifies some data to send along with the request.

7. State advantage of AJax?

Ajax's primary advantage is its **ability to improve performance and usability for web applications**. Ajax allows applications to render with no data. This reduces server traffic. Web developers can reduce the time taken to respond on both sides of the request.

8. Explain the disadvantage of Ajax?

Any user whose browser does not support JavaScript or XMLHttpRequest, or has this functionality disabled, will not be able to properly use pages that depend on Ajax. Multiple server requests need more data consumed at the client-side. Failure of any one request can fail the load of the whole page.

9. Define JSON?

SON is an open standard file format and data interchange format that uses human-readable text to store and transmit data objects consisting of attribute–value pairs and arrays. It is a common data format with diverse uses in electronic data interchange, including that of web applications with servers.

10.What is Asynchronous in Ajax?

Ajax is a set of web development techniques that uses various web technologies on the client-side to create asynchronous web applications. With Ajax, web applications can send and retrieve data from a server asynchronously without interfering with the display and behaviour of the existing page.