Assignment - 3

Q-1) What is Client-Side Scripting? Explain the role of JavaScript in Client-Side Scripting?

Ans.) Client-Side Scripting is code that runs in the user's web browsers instead of the server, it makes the webpages interactive and dynamic.

* Role of Java-Script:

→ Adds interactivity
→ Validates ~~for~~ form inputs before submission.
→ modifies webpages content dynamically using the DOM.

→ Handles user actions like clicks and key process.
→ Fetches data without reloading the page stores data locally.
→ Creates animations and effects.

Q-2) Write a Javascript code snippet to on e-mail address by user in HTML form :

Ans.)
```
<html>
<head>
  <title> Email Validation </title>
  <Script>
      function Validation Email()
{ let email = document.get element
  ("email") .value

  let msg = document.get ("err-msg");
  let email str = /^ [a-z A-Z 0-9 . _ + -] +
                @ [a-z A-Z 0-9 .]

  if (audio -test) (email) {
     errormsg. style. color = "green";
     msg. text Context = "Valid Email
                          address!";

     return true ;
  }
  else {
        msg. style. color = "red";
        msg. text Convert = "Invalid Email
                             format";

        }

  }
```

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~~* Advantages:~~

~~1) Resource Isolation:~~

Q-3) Define JQuery, what are the advantages of using jQuery in web development?

Ans.) It is the fast and light weight JS script library that simplifies tasks like HTML manipulation develop's write less code while achiving more functionality.

* Advantages:

1) Easy to use
2) Cross-Browser Compatibility.
3) Effortless DOM manipulation.
4) Built-in Animations.
5) Simplified event handling.
6) Array support.
7) light-weight & fast.

Q-4) Write a JQuery code snippet to script all the paragraph in a webpage and change their text color to blue.

Ans.)
```
<html>
<head>
    <title> Change Color </title>
    <Script src = "https://code.jquery.com/jquery
    7 </Script>
```

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```
<Script>
  $ document.ready (function(){})
</Script>

</head>
<body>
  <P> first Paragraph </P>
  <P> Second Paragraph </P>

</body>
</html>
```

Q-5) What are jQuery select provide example of at least three different types of JQuery selector's and explain these users.

Ans.) JQuery selectors are used to find and manipulate HTML elements on their tag name.

(1) Element selectors:
→ Select all elements of a specific type.
E.x) $ ("P"); CSS ("color", "red");

(2) ID selectors:
→ selects a single element with a specific ID.
E.x) $ ("#myDiv") . hide ();

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(3) Class selectors ($(".class")):

→ selects all elements with a specific class.

e.g) $(".highlights").css("background-color", "red");

Q-6) How do you handle errors in PHP when working with MySQL queries? Write a PHP code snippet to handle errors?

Ans-) To handle errors in PHP while working with MySQL, we use mysql_error() or try-catch to detect and manage errors.

* Code :

```
<? PHP
$Conn = new mysql("localhost", "root", "",
                  "test_db");

if ($Conn -> connect_error){ }

$SQL = "SELECT" * From Users";
$result = " $Conn -> query ($SQL);
        die ("Query failed :", $Conn+ error);
```

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```
}
}
$ conn -> close();
?>
```

Q-7) Create an HTML form with fields for username and password and the PHP to insert this data into a MYSQL database.

Ans.)

```
<html>
<head>
<title> User registration </title>
</head>
<body>
    <h2> Register </h2>
<form action="insert.php" method="post">
<label for="username">Username </label>
<input type="text" id="username"
required> <br> <br>

<label type="password" id="password"> : </label>
<button type="submit"> Register </button>
</form>
</body>
</html>
```

insert.html:

```
<?PhP
$ Ca = new mysql("localhost","root","  ",
    " tenthi")

if ($Uun = $_POST ['username'];

$ Puss = Password .hosT ($_Post
                    ['Password'] ;

 if ($str → execute())
  { echo "User registered successfull");
  }
 else {
     echo "Error :" . $ stm → error ;

  $ Struct → Close ;
  $ com → CLOSE ;
  }
?>
```

Q-8) Explain the MVC architecture. Describe the role of View and in the MVC pattern.

Ans.) Is a software design pattern used for application.

* Role :

1) Model :

→ Manages the applications data and business logic.

→ Integers with the database.

→ E.x) Fetching user details form the database.

2) View :

→ Handles the user interface and display data.

→ E.x) HTML templates, displaying forms and tables.

3) Controller :

→ Acts as a bridge between model and view.
→ Processes user input, updates the model and selects the appropriate view.

e.x) Handling form submission and updating the database.

* Advantages :-

- Enhance code reliability and flexibility.
- separates data logic from OI making it scalable.
- makes debbuging and testing easier.
- changes the one component are less likely to affect other components.
- Different developers can work on different components simultaneosly.