JavaScript

Java Script

JavaScript is the programming language of the Web.

JavaScript used to program the behavior of web pages

Change HTML Content

HTML

<p id="test" > **HELLO**</p>

Javascript

<button type="button"

    onclick='document.getElementById("test").innerHTML =

  "Hello JavaScript!" > CLICK HERE

</button>

Change Style of Content

HTML

<p id="test" > **HELLO**</p>

Javascript

<button type="button"

onclick='document.getElementById("test").style.color =

"red" > CLICK HERE

</button>

Where to write Js ?

Js code inserted between <script> and </script> Tag.

<p id="test" > **HELLO**</p>

<script>

   document.getElementById("test").style.color =   **"red" ;**

</script>

Where to write <script>Tag ?

Scripts can be placed in the <body>, or in the <head> section of an HTML page, or in both.

JavaScript Functions

A JavaScript function is a block of JavaScript code, that can be executed when "called" for.

For example, a function can be called when an **event** occurs, like when the user clicks a but

Example

```
<head>  <script>

        function myFunction() {

                document.getElementById("head").innerHTML = "Paragraph changed.";     }

   </script>   </head>

<body>

<p id="head">Content <p>

<button type="button" onclick="myFunction()" >Click Here</button>

</body>
```

Example

```
<body>

<p id="head">Content <p>
<button type="button" onclick="myFunction()" >Click Here</button>

<script>

        function myFunction()    {

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

</body>
```

JavaScript Output

<script>

document.getElementById("demo").**innerHTML** = "Hello Dolly.";

document.write("Hello");

Window.alert("UVPCE");

Console.log("GANPAT UNIVERSITY");

</script>

JavaScript Popup Boxes

JavaScript has three kind of popup boxes:

1. Alert box

2. Confirm box

3. Prompt box.

Alert Box

```
<body>

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

<script>

        function myFunction()


        {    alert("I am an alert box!");  }


</script>

</body>
```

Confirm Box

A confirm box is often used if you want the user to verify or accept something.

When a confirm box pops up, the user will have to click either "OK" or "Cancel" to proceed.

If the user clicks "OK", the box returns **true**. If the user clicks "Cancel", the box returns **false**.

```
<script>

    var no=prompt("enter no");

    confirm("is this is " +no + "yours no?")

</script>
```

Confirm Box: Example

```
<body>

    <button onclick="myFunction()"> CLICK </button>

    <script>

        function myFunction() {

                if (confirm("Press a button!")) {

                        document.write("You pressed OK!“);          }

                else       {

                        document.write ("You pressed Cancel!)";     }                    }

    </script>

</body>
```

Prompt Box

A prompt box is often used if you want the <mark>user to input a value</mark> before entering a page.

```
<body>

    <script>

    var name=prompt("Enter Your Name");

    document.write("Your Name is " +name);

    </script>

</body>
```

Bootstrap

Bootstrap is the popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.

It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many others.

Bootstrap uses HTML elements and CSS properties

Mobile-first styles are part of the core framework of Bootstrap.You have to add the following <meta> tag inside the <head> element for proper rendering and touch zooming:

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

Bootstrap container:

In Bootstrap, container is used to set the content's margins dealing with the responsive behaviors of your layout.

It contains the row elements, and the row elements are the container of columns (known as grid system).

Container is used to wrap the site contents.

There are two container classes.

The **.container class**

- ◦ provides a responsive fixed width container.

The **.container-fluid** class

- ◦ provides a full width container, spanning the entire width of the viewport.

Bootstrap container:

<div class="container">

  <h1>Container</h1>

  <p>container content</p>

</div>

  <div class="container-fluid">

  <h1>Container-fluid</h1>

  <p>container-fluid content</p>

</div>

Bootstrap Grid

The Bootstrap Grid System allows up to 12 columns across the page.

You can use all 12 columns individually or you can groups the columns together to create wider columns.

Bootstrap Grid

In .col-*-* ,

(*) represents the responsivenes : sm, md, lg or xl,

(*)represents a number, which should add up to 12 for each row.

```
<div class="container">

<div class="row">

  <div class="col-md-6"style="background-color:lavender;">Rahul</div>

  <div class="col-md-6"style="background-color:lavenderblush;">Vijay</div>

  </div>

</div>
```

Bootstrap 4 Grid Classes

There are 5 classes in Bootstrap 4 grid system.

- **.col-** (extra small devices - screen width less than 576px)

- **.col-sm-** (small devices - screen width equal to or greater than 576px)

- **.col-md-** (medium devices - screen width equal to or greater than 768px)

- **.col-lg-** (large devices - screen width equal to or greater than 992px)

- **.col-xl-** (xlarge devices - screen width equal to or greater than 1200px)

Equal Columns Example

◦ <div class="container-fluid">

◦ <h2>Three equal-width columns</h2>

◦ <div class="row">

◦   <div class="col" style="background-color:lavender;">.col</div>

◦   <div class="col" style="background-color:orange;">.col</div>

◦   <div class="col" style="background-color:lavender;">.col</div>

◦ </div>

◦ </div>

Bootstrap Buttons

There are seven styles to add a button in Bootstrap.

Following classes to achieve the different button styles:

- ◦ .btn-default

- ◦ .btn-primary

- ◦ .btn-success

- ◦ .btn-info

- ◦ .btn-warning

- ◦ .btn-danger

- ◦ .btn-link

Bootstrap Buttons

```html
<body>

  <h1>Button Example!</h1>

        <button class="btn btn-default">default</button>

        <button class="btn btn-primary">primary</button>

        <button class="btn btn-danger">danger</button>

</body>
```

Bootstrap Button Size

The following classes define the different sizes:

1. .btn-lg

2. .btn-md

3. .btn-sm

4. .btn-xs

```
<div class="container">

  <button type="button" class="btn btn-primary btn-lg">Large</button>

  <button type="button" class="btn btn-primary btn-md">Medium</button>

</div>
```

Bootstrap Tables

We can create different types of Bootstrap tables by using different classes to style them.

Bootstrap Basic Table:

The .table class is used to add basic styling to a table.

<table class="table">

Bootstrap Striped Rows Table: **<table** class="table table-striped">

Bootstrap Bordered table:**<table** class="table table-striped table-bordered">

Bootstrap Hover rows Table :**<table** class="table table-hover">

Responsive tables: <div class="table-responsive"> <table> </table> </div>

Bootstrap Contextual classes:.

Contextual classes are used to color table rows (<tr>) or table cells (<td>):

```
<table class="table">

<tr class="success"> <th>  Age </th>   </tr>

<tr class="active"> <td>   23  </td>  </tr>

<tr class="danger"> <td> 22 </td>  </tr>

<tr class="info"> <td>  29  </td>  </tr>

<tr class="warning"> <td> 21 </td>  </tr>

</table>
```

Bootstrap List Groups

Bootstrap list group is used to create a group of list with list items.

The **class ".list-group"** within the <ul> element and the **class ".list-group-item"** within the

element are used to create a basic list group.

```
<div class="container">

<ul class="list-group">

    <li class="list-group-item">First item</li>

    <li class="list-group-item">Second item</li>

    <li class="list-group-item">Third item</li>

 </ul>

</div>
```

Bootstrap List Groups with Hyperlinks

◦ **class ".active"** is used to highlight the current item.

<div class="container">

    <div class="list-group">

        <a href="url" <mark>class="list-group-item active"</mark> >ITEM-1

         ITEM-2

         ITEM-3

    </div>

    </div>

Bootstrap Navigation Bar

◦ A navigation bar is like a navigation header that is placed at the top of the page.

◦ A standard navigation bar is created with the .navbar class, followed by a responsive collapsing class: .navbar-expand-xl|lg|md|sm

◦ To add links inside the navbar, use a <ul> element with class="navbar-nav".

◦ Then add <li> elements with a .nav-item class followed by an

   <a> element with a .nav-link class

Bootstrap Contextual Colors and Background

◦ The classes for text colors are:

◦ .text-muted :This text is muted.

◦ text-primary :This text is important.

◦ .text-success:This text indicates success.

◦ .text-info: This text represents some information.

◦ .text-warning:This text represents a warning.

◦ .text-danger:This text represents danger