➢ **Lab4**

➢ **Question: -**

➢ **1. WAP to prepare student registration form and validate it using JavaScript.**

```html
<!DOCTYPE html>
<html lang="en">
<body>
    <center>
        <table>
            <tr>
                <td>Username</td>
                <td>
                    <input type="text" name="uname" id="name">
                </td>
                <td><p id="emsg" style="color: red;"></p></td>
            </tr>
            <tr>
                <td>Email</td>
                <td>
                    <input type="text" name="email" id="email">
                </td>
                <td><p id="emailmsg" style="color: red;"></p></td>
            </tr>
            <tr>
                <td>Mobile Number</td>
                <td>
                    <input type="number" name="phn" id="num">
                </td>
                <td><p id="nummsg" style="color: red;"></p></td>
            </tr>
            <tr>
                <td>Password</td>
                <td>
                    <input type="password" name="psw" id="psw">
                </td>
                <td><p id="pswmsg" style="color: red;"></p></td>
            </tr>
            <tr>
                <td>
                    <button type="submit"
onclick="validation()">Submit</button>
                </td>
            </tr>
```
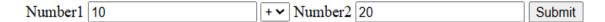
```
        </table>
    </center>
    <script>
        var uname=document.getElementById("name");
        var email=document.getElementById("email");
        var number=document.getElementById("num");
        var password=document.getElementById("psw");
        function validation()
        {
            //var pattern=/^[a-zA-Z0-9_\.]{2,}$/;
            //var regexp= new RegExp(pattern);
            if(RegExp(/^[a-zA-Z0-9_\.]{2,}$/).test(uname.value))
            {
                document.getElementById('emsg').innerHTML=' ';
            }
            else
            {
                document.getElementById('emsg').innerHTML="Invalid";
            }

            if(RegExp(/^[a-zA-Z0-9]+@[a-z]+\.[a-z]/).test(email.value))
            {
                document.getElementById('emailmsg').innerHTML=' ';

            }
            else{
                document.getElementById('emailmsg').innerHTML='Invalid';

            }
            if(RegExp(/^[0-9]{10}/).test(number.value))
            {
                document.getElementById('nummsg').innerHTML=' ';

            }
            else
            {
                document.getElementById('nummsg').innerHTML='Invalid';
            }
            if(RegExp(/^[a-z0-9]{8,}/).test(password.value))
            {
                document.getElementById('pswmsg').innerHTML=' ';
            }
            else
            {
```

```
            document.getElementById('pswmsg').innerHTML='Invalid';
        }
    }
    </script>
</body>
</html>
```

| | | | |
|---|---|---|---|
| Username | Vraj0282 | Username | Vra |
| Email | vraj@gmail.com | Email | vraj@gma    Invalid |
| Mobile Number | 6352566307 | Mobile Number | 635256    Invalid |
| Password | •••••••• | Password | •••••    Invalid |
| Submit | | Submit | |

> **2. WAP using HTML, CSS, JavaScript to design simple calculator with GUI.**

```
<html>
    <head></head>
    <body>
        <center>
            <form>
                <h1>Simple calculator</h1>
                <table>
                    <tr>
                        <td><label>Number1</label></td>
                        <td><input type="text" id="n1"></td>
                        <td>
                            <select id="s1">
                                <option>+</option>
                                <option>-</option>
                                <option>*</option>
                                <option>/</option>
                            </select>
                        </td>

                        <td><label>Number2</label></td>
                        <td><input type="text" id="n2"></td>
                        <td>
```

```html
                            <button id="btn" type="submit"
onclick="calculator()">Submit</button>
                        </td>
                    </tr>
                    <tr>
                        <td>
                            <label id="output"></label>
                        </td>
                    </tr>
                </table>
            </form>
        </center>
        <script>
            function calculator()
            {
                let n1=parseInt(document.getElementById("n1").value);
                let n2=parseInt(document.getElementById("n2").value);
                let opt=document.getElementById("s1").value;
                let ans=document.getElementById("output");
                if(opt=='+')
                    ans.innerHTML=document.write("Addition is:"+(n1+n2));
                else if(opt=='-')
                    ans.innerHTML=document.write("Subtraction is:"+(n1-n2));
                else if(opt=='*')
                    ans.innerHTML=document.write("Multiplaction is:"+(n1*n2));
                else if(opt=='/')
                    ans.innerHTML=document.write("Division is:"+(n1/n2));
                else
                    ans.innerHTML=document.write("Invalid input");
            }
        </script>
    </body>
</html>
```

# Simple calculator

Number1 `10`   `+ ∨`  Number2 `20`   `Submit`

> ➢ **3. WAP using HTML, CSS, JavaScript to design advance calculator with GUI.**

```html
<html>
    <head>
        <style>
            div{
                height: 750px;
                width: 500px;
                background-color: azure;
                border: 2px solid black;
            }
            input{
                width: 420px;
                height: 50px;
                font-size: 20px;
            }
            button{
                height: 100px;
                width: 100px;
                font-size: 20px;
            }
        </style>
    </head>
    <body>
        <center>

            <div>
                <h1>Simple calculator</h1>
                <br>
                <input type="text" id="display">
                <br>
                <br>
                <br>
                <button onclick="cleardisplay()">C</button>
                <button onclick="appendCharacter('/')">/</button>
                <button onclick="appendCharacter('*')">*</button>
                <button onclick="appendCharacter('%')">%</button>
                <br>
                <button onclick="appendCharacter('7')">7</button>
                <button onclick="appendCharacter('8')">8</button>
                <button onclick="appendCharacter('9')">9</button>
```

```html
            <button onclick="appendCharacter('+')">+</button>
            <br>
            <button onclick="appendCharacter('4')">4</button>
            <button onclick="appendCharacter('5')">5</button>
            <button onclick="appendCharacter('6')">6</button>
            <button onclick="appendCharacter('-')">-</button>
            <br>
            <button onclick="appendCharacter('1')">1</button>
            <button onclick="appendCharacter('2')">2</button>
            <button onclick="appendCharacter('3')">3</button>
            <button onclick="calculate()">=</button>
            <br>
            <br>
            <button onclick="remove()">Delete</button>
        </div>
    </center>
    <script>
        function cleardisplay()
        {
            document.getElementById("display").value="";
        }
        function appendCharacter(char)
        {
            document.getElementById("display").value += char;
        }
        function calculate()
        {
            document.getElementById("display").value=eval(document.getElem
entById("display").value);
        }
        function remove()
        {
            document.getElementById("display").value
=(document.getElementById("display").value).slice(0,-1);
        }
    </script>
    </body>
</html>
```

# Simple calculator

| | | | |
|---|---|---|---|
| C | / | * | % |
| 7 | 8 | 9 | + |
| 4 | 5 | 6 | - |
| 1 | 2 | 3 | = |

Delete