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200905130

Section : C2

Roll no. : 23

OSTL – 8 – ADDITIONAL HTML , JAVASCRIPT **QUESTIONS**

Exercise questions :

1. Write the HTML5 program to display the following using canvas tag. Give different colour for the rectangles.

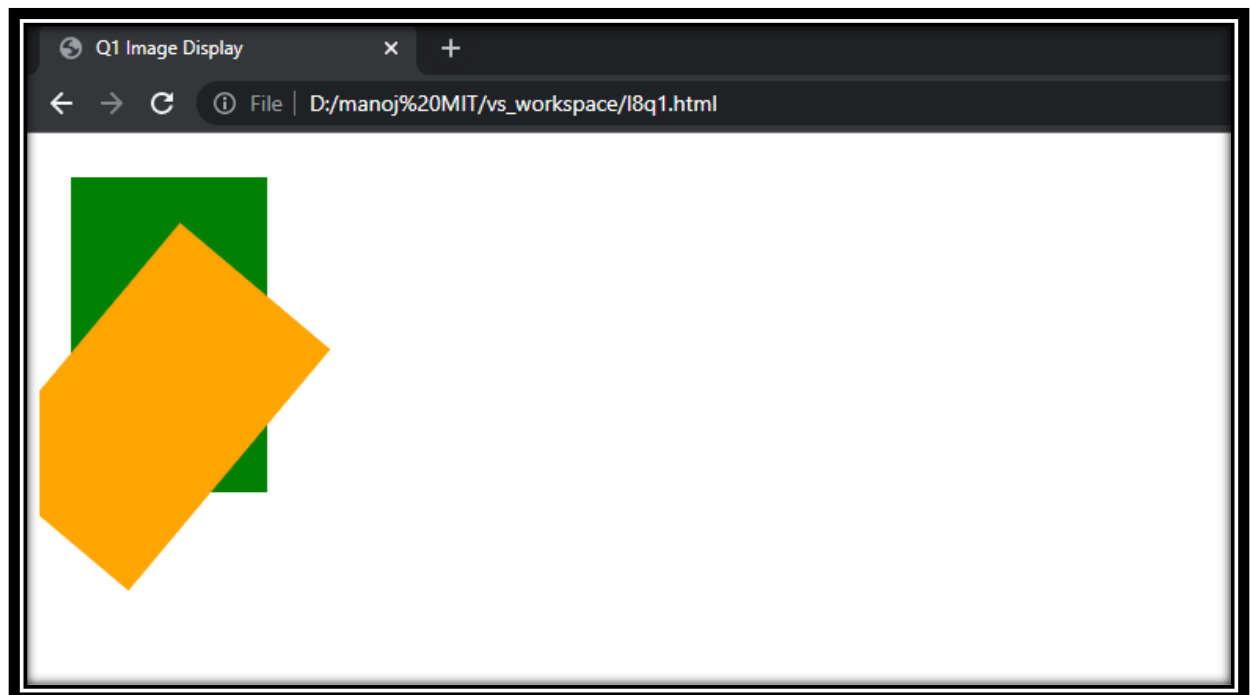


HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q1 Image Display </title>
  <style type="text/css">
    *{
      text-align: left;
    }
  </style>
</head>
<body>
  <canvas id="myCanvas" width="200" height="300">
    <script type="text/javascript">
      var c = document.getElementById("myCanvas");
      var ctx = c.getContext("2d");
      ctx.fillStyle = "green";
      ctx.fillRect(20, 20, 125, 200);
      var d = document.getElementById("myCanvas");
```

```
var dtx = d.getContext("2d");
dtx.fillStyle = "orange";
ctx.rotate(40 * Math.PI / 180);
dtx.fillRect(100, -20, 125, 200);
</script>
</canvas>
</body>
</html>
```

Output :

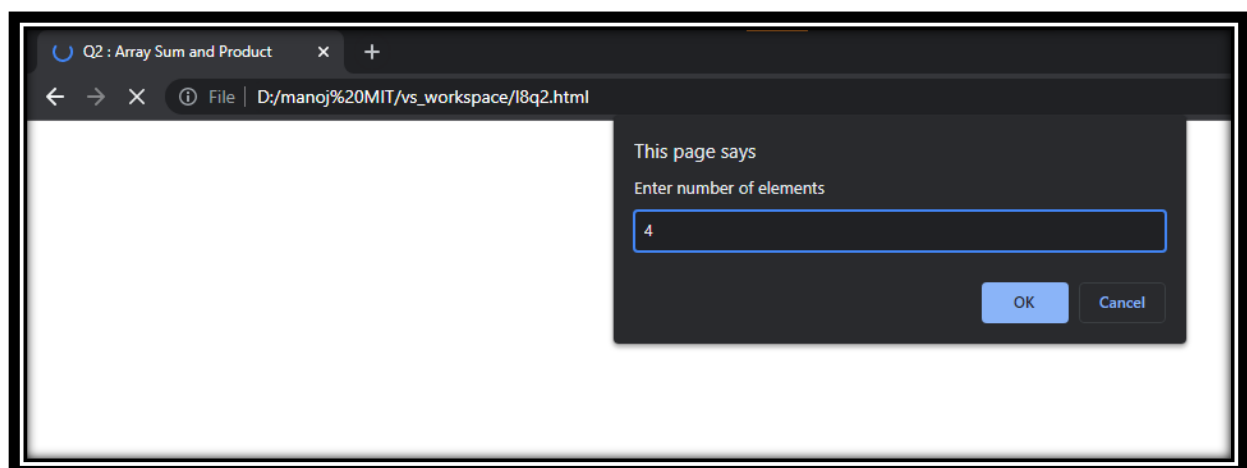


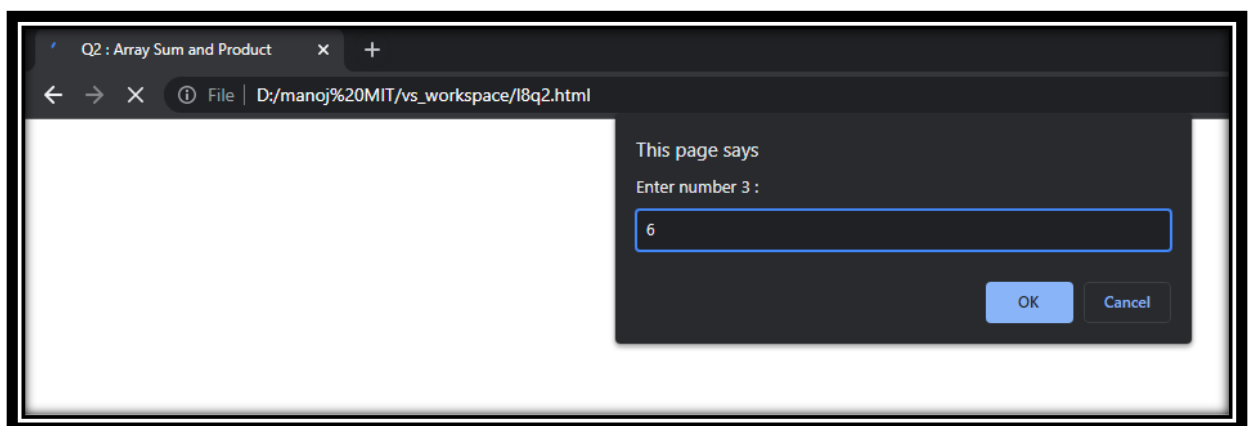
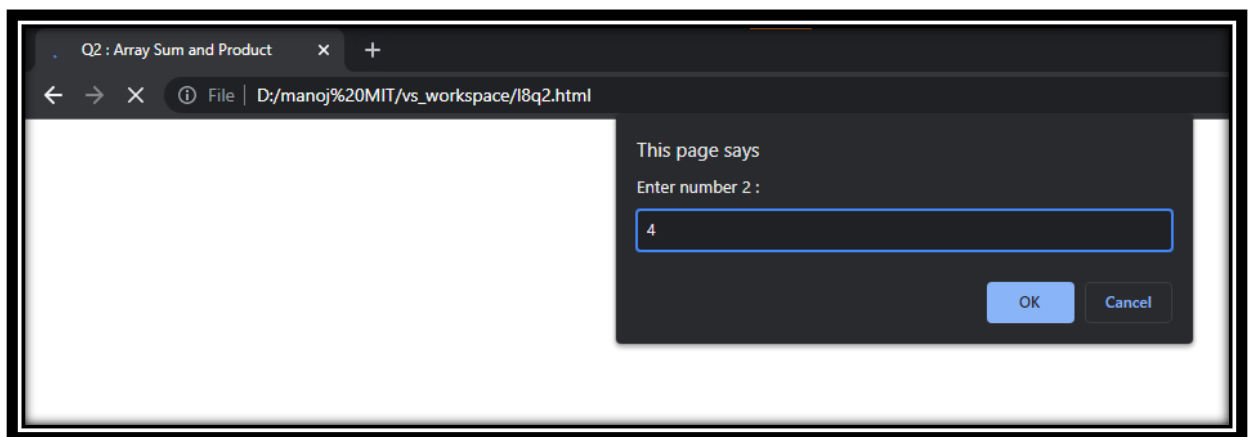
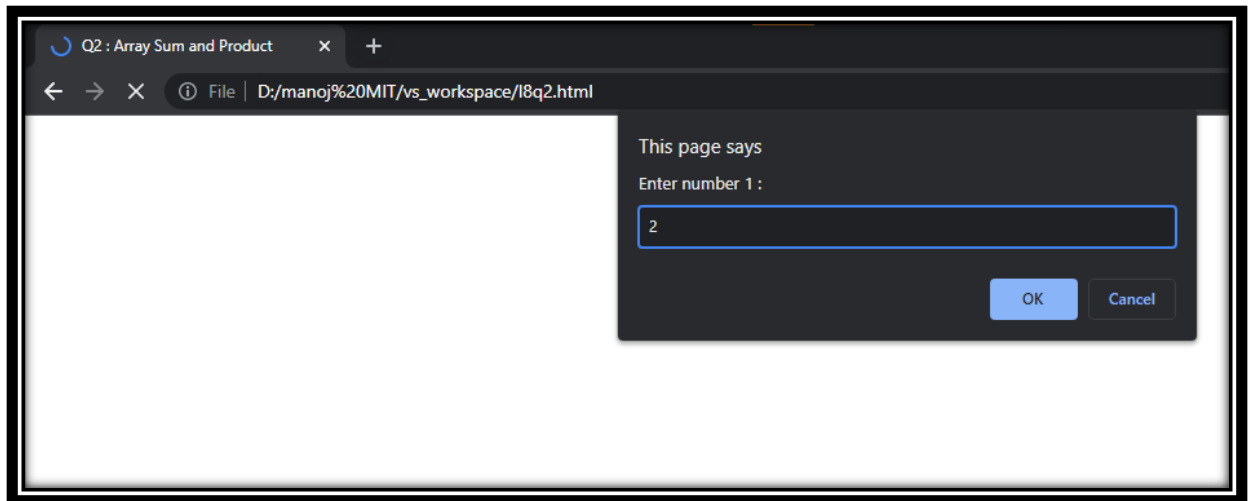
2. Write a JavaScript program to compute the sum and product of an array of integers. Take the array elements from user. (Use alert command)

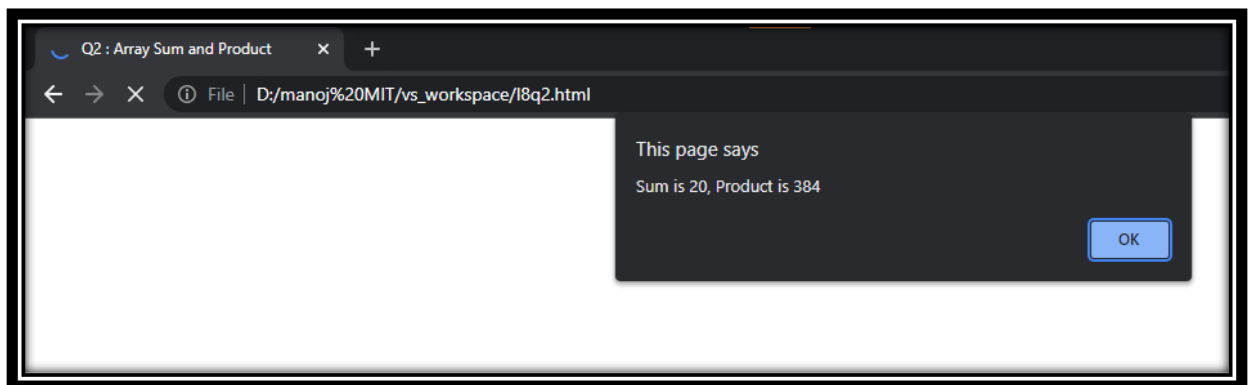
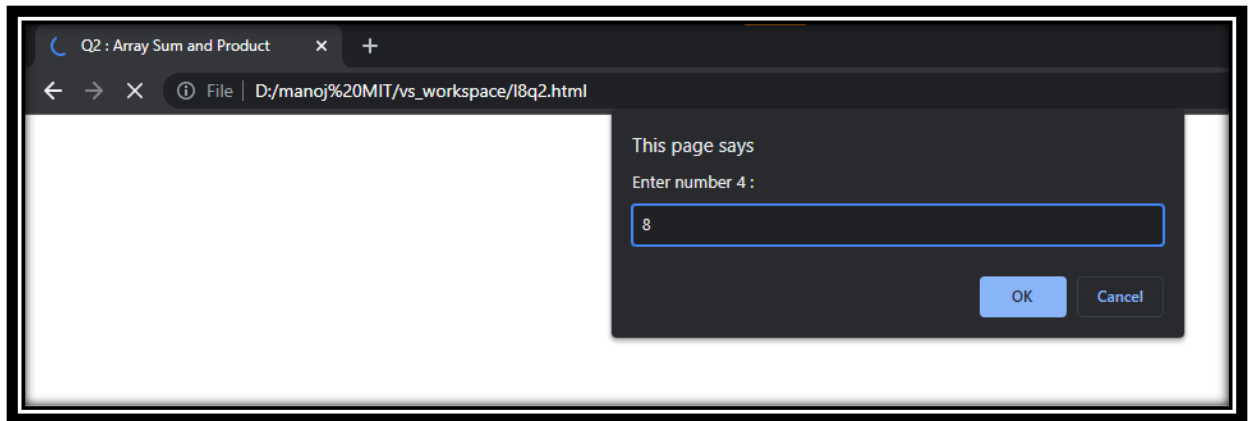
HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q2 : Array Sum and Product</title>
</head>
<body>
  <script>
    var sum = 0;
    var num = prompt("Enter number of elements ");
    var arr = Array();
    var n;
    var product = 1;
    for(var i = 0; i < num; i = i + 1){
      n = prompt("Enter number " + (i+1) + " : ");
      sum += parseInt(n);
      product *= n;
    }
    alert("Sum is " + sum + ", Product is " + product);
  </script>
</body>
</html>
```

Output :







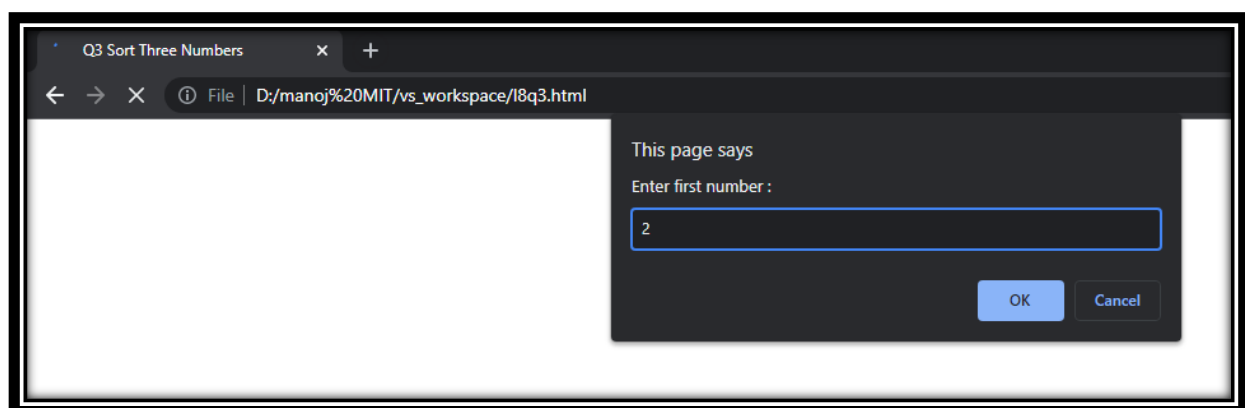
3. Write a JavaScript conditional statement to sort any three numbers. Display an alert box to show the result.

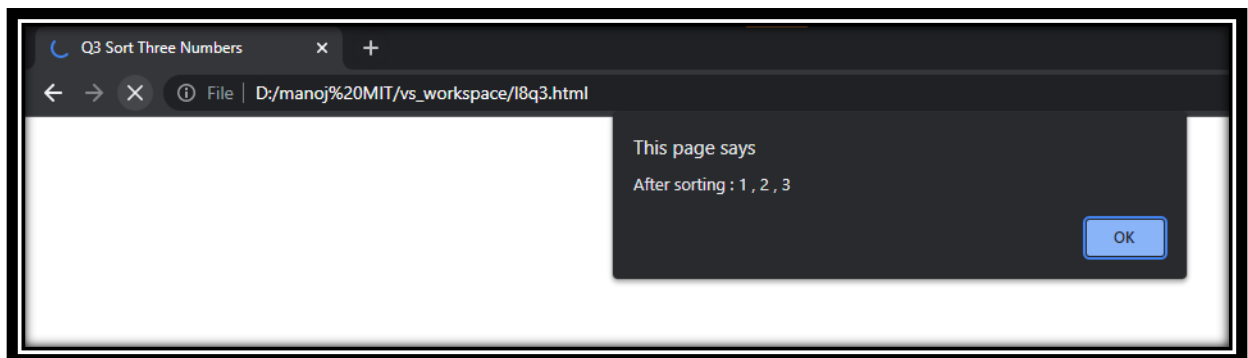
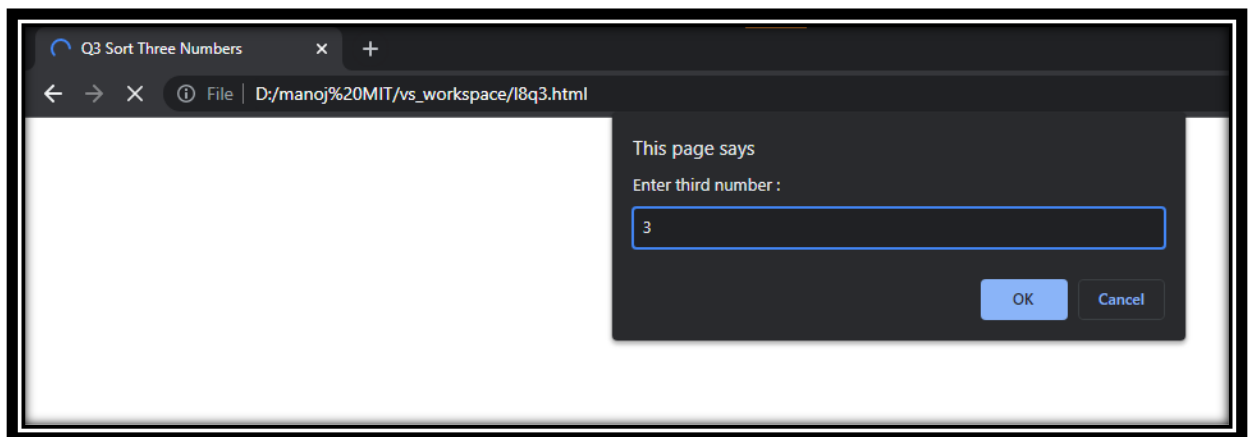
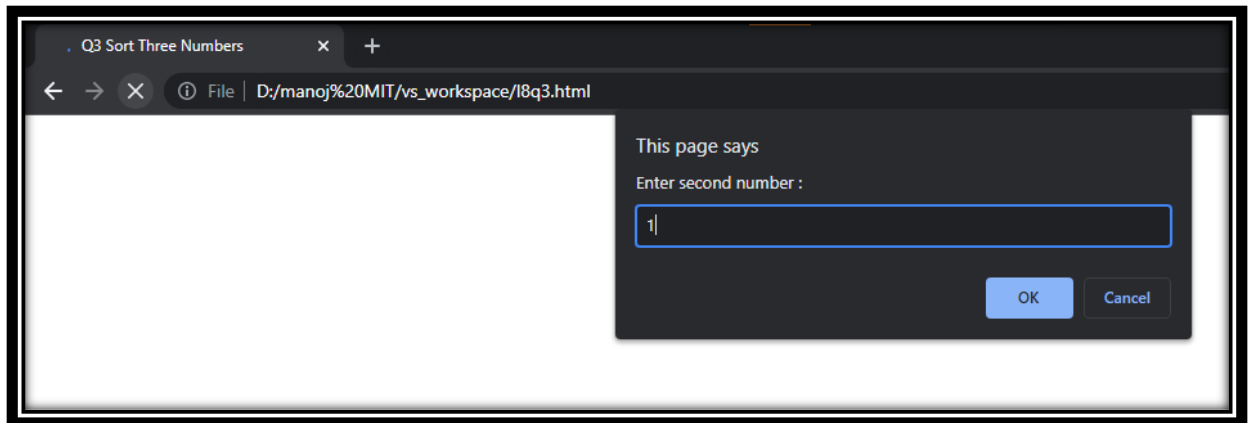
HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q3 Sort Three Numbers</title>
</head>
<body>
<script type="text/javascript">
  var a = parseInt(prompt("Enter first number :"));
  var b = parseInt(prompt("Enter second number :"));
  var c = parseInt(prompt("Enter third number :"));
  if(a > b){
    if(a > c){
      max = a;
    }
  }
  else{
    max = c;
  }
  alert(max);
</script>
</body>
</html>
```

```
}  
}  
else if( b > a){  
  if(b > c){  
    max = b;  
  }  
  else{  
    max = c;  
  }  
}  
if(a > b && c > b){  
  min = b;  
}  
else if(b > a && c > a){  
  min = a;  
}  
else{  
  min = c;  
}  
mid = a + b + c - max - min;  
alert("After sorting : " + min + " , " + mid + " , " + max);  
</script>  
</body>  
</html>
```

Output :



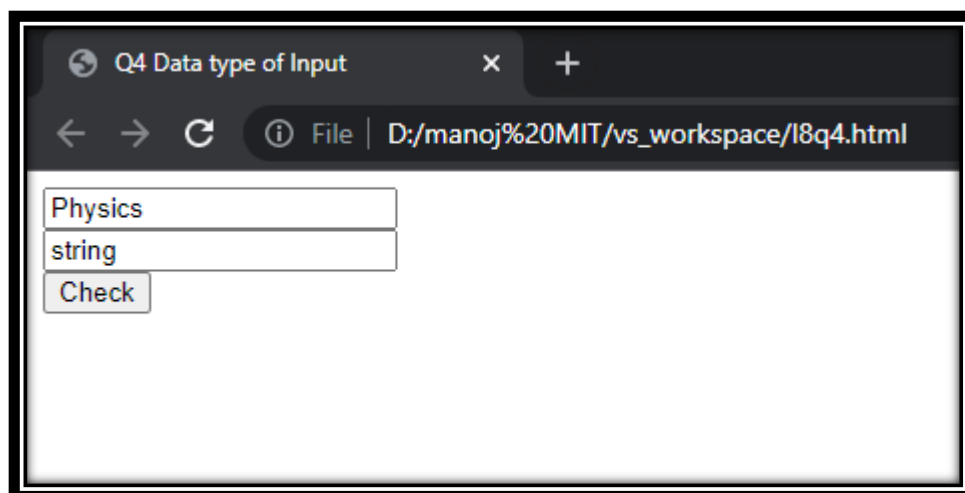


4. Write a JavaScript program to take some input from the user [string, integer and Boolean]. Based on the input, display the type of the input in the 'text box'.

HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q4 Data type of Input</title>
</head>
<body>
  <script type="text/javascript">
    function checkInput() {
      var input = document.getElementById("inp").value;
      var output = document.getElementById("out")
      if (input.match(/(true)|(false)/g))
        output.setAttribute("value" , "boolean");
      else if (input.match(/[A-z]/g))
        output.setAttribute("value" , "string");
      else output.setAttribute("value" , "integer");
    }
  </script>
  <input type="text" name="in" id="inp" placeholder="Enter something..."><br>
  <input type="text" name="out" id="out"><br>
  <button onclick="checkInput()">Check</button>
</body>
</html>
```

Output :



Q4 Data type of Input

← → ↻ ⓘ File | D:/manoj%20MIT/vs_workspace/l8q4.html

true

boolean

Check

Q4 Data type of Input

← → ↻ ⓘ File | D:/manoj%20MIT/vs_workspace/l8q4.html

73

integer

Check

5. Write the HTML5 program to draw a "smiling face" picture using the canvas tag.

HTML Code :

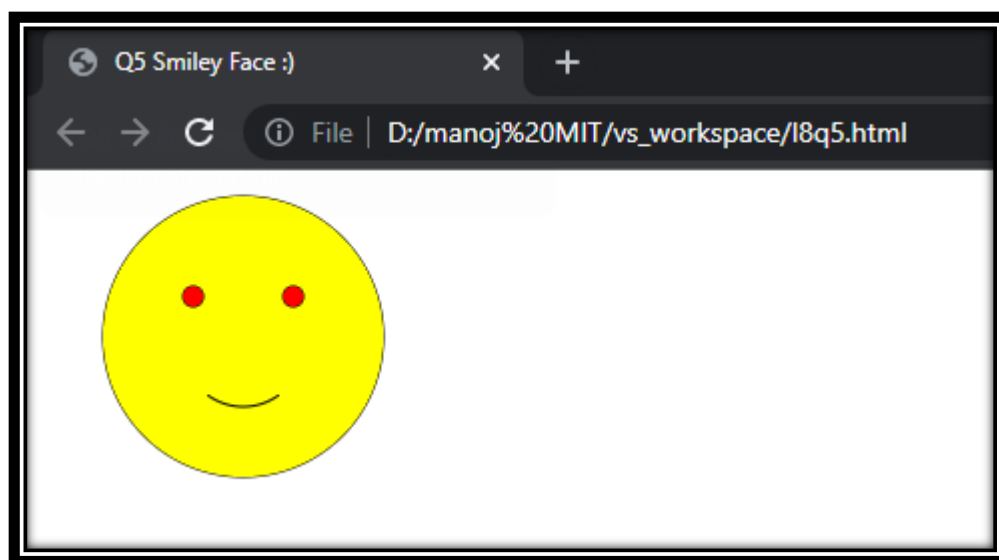
```
<!DOCTYPE html>
<html>
<head>
  <title>Q5 Smiley Face :)</title>
</head>
<body>
  <canvas id="myCanvas" width="400" height="250">
    <script type="text/javascript">
      var c = document.getElementById("myCanvas");
      var ctx = c.getContext("2d");
      ctx.beginPath();
      ctx.arc(100, 75, 70, 0, 2 * Math.PI);
      ctx.stroke();ctx.fillStyle = " #FFFF00";
```

```

ctx.fill();
var d = document.getElementById("myCanvas");
var dtx = d.getContext("2d");
dtx.beginPath();
dtx.arc(75, 55, 5, 0, 2 * Math.PI);
dtx.stroke();
dtx.fillStyle = "red";
dtx.fill();
var e = document.getElementById("myCanvas");
var etx = e.getContext("2d");
etx.beginPath();
etx.arc(125, 55, 5, 0, 2 * Math.PI);
etx.stroke();
etx.fillStyle = "red";
etx.fill();
var f = document.getElementById("myCanvas");
var ftx = f.getContext("2d");
ftx.beginPath();
ftx.arc(100, 80, 30, 0.3 * Math.PI, 0.7 * Math.PI);
ftx.stroke();
</script>
</canvas>
</body>
</html>

```

Output :

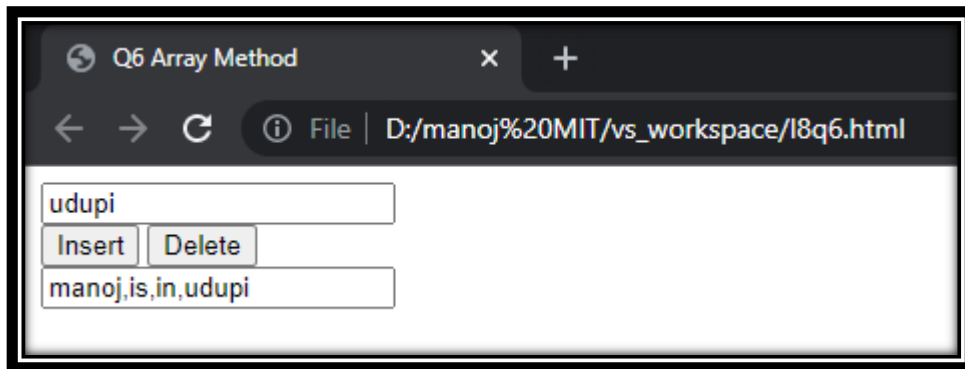


6. Write the JavaScript program to add items into the array and delete items from array using two methods.

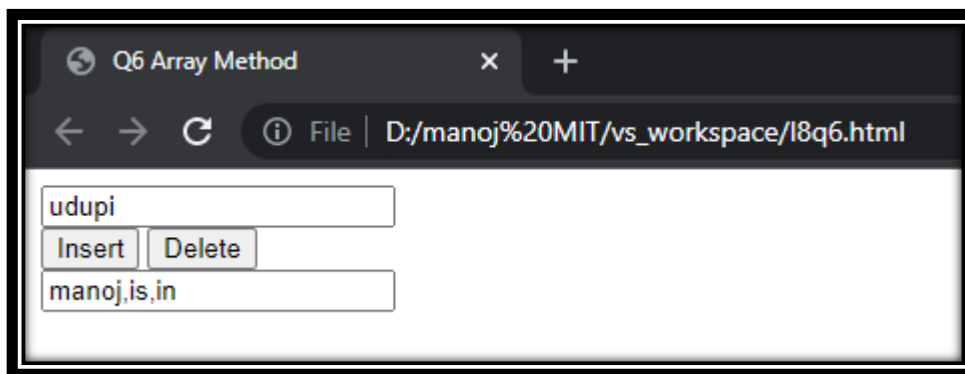
HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q6 Array Method</title>
</head>
<body>
  <script type="text/javascript">
    var array = [];
    function add(value) {
      array.push(value);
      document.getElementById("array_out").setAttribute("value", array);
    }
    function del(value) {
      for (var i = array.length - 1; i >= 0; i--) {
        if (array[i] == value) {
          array.splice(i, 1);
        }
      }
      document.getElementById("array_out").setAttribute("value", array);
    }
  </script>
  <input type="text" name="input" id="word_in" placeholder="Enter word to
del/add"><br>
  <button onclick="add(getElementById('word_in').value)">Insert</button>
  <button onclick="del(getElementById('word_in').value)">Delete</button><br>
  <input type="text" name="output" id="array_out">
</body>
</html>
```

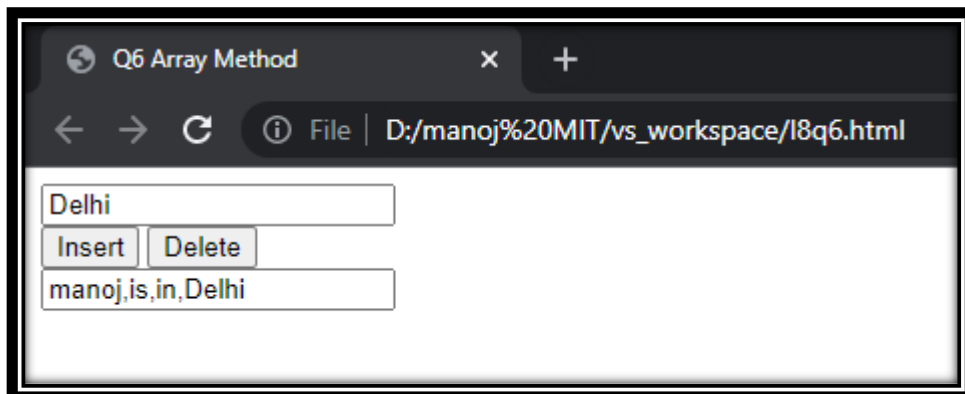
Output :



Deleting udupi...



Inserting Delhi...

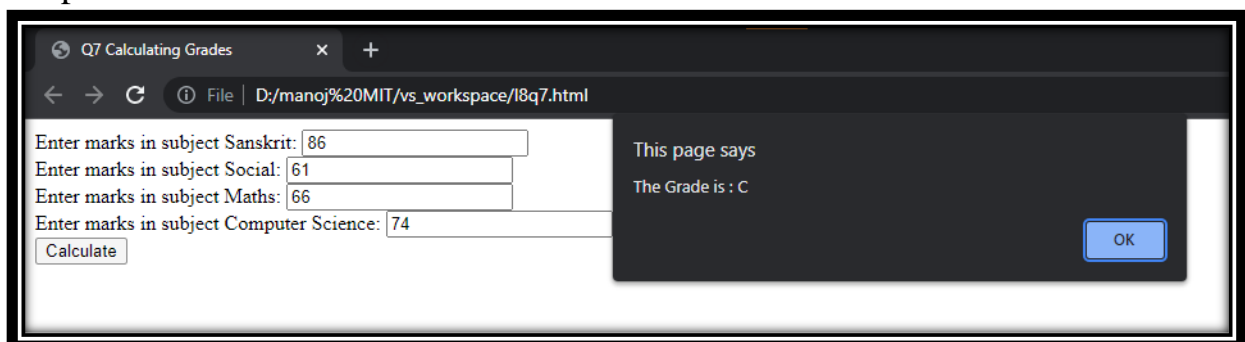


7. Write the java script program to display the grade [A, B,C,D] based on the marks entered by student (take the input into text boxes). Enter the marks of 4 subjects and calculate the average (using button). If the avg > 90 then A, avg > 80 then B, if avg > 70 then C, if avg > 60 then D.

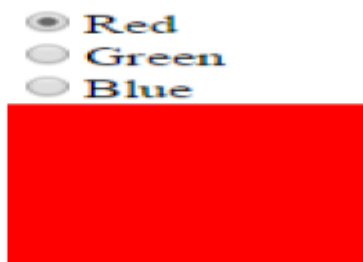
HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q7 Calculating Grades</title>
</head>
<body>
<script type="text/javascript">
  function calc() {
    var sum=0;
    for (var i = 1; i <= 4; i++) {
      sum += parseInt(document.getElementById('m'+i).value);
    }
    var avg = sum/4;
    var grade = "";
    if (avg < 60) grade = 'Fail';
    else if (avg < 70 && avg > 60) grade = 'D';
    else if (avg < 80 && avg > 70) grade = 'C';
    else if (avg < 90 && avg > 80) grade = 'B';
    else grade = 'A';
    alert('The Grade is : ' + grade );
  }
</script>
Enter marks in subject Sanskrit: <input type="text" name="m1" id="m1"><br>
Enter marks in subject Social: <input type="text" name="m2" id="m2"><br>
Enter marks in subject Maths: <input type="text" name="m3" id="m3"><br>
Enter marks in subject Computer Science: <input type="text" name="m4"
id="m4"><br>
<button onclick="calc()">Calculate</button>
</body>
</html>
```

Output :



8. Write the JavaScript program to show the below output.

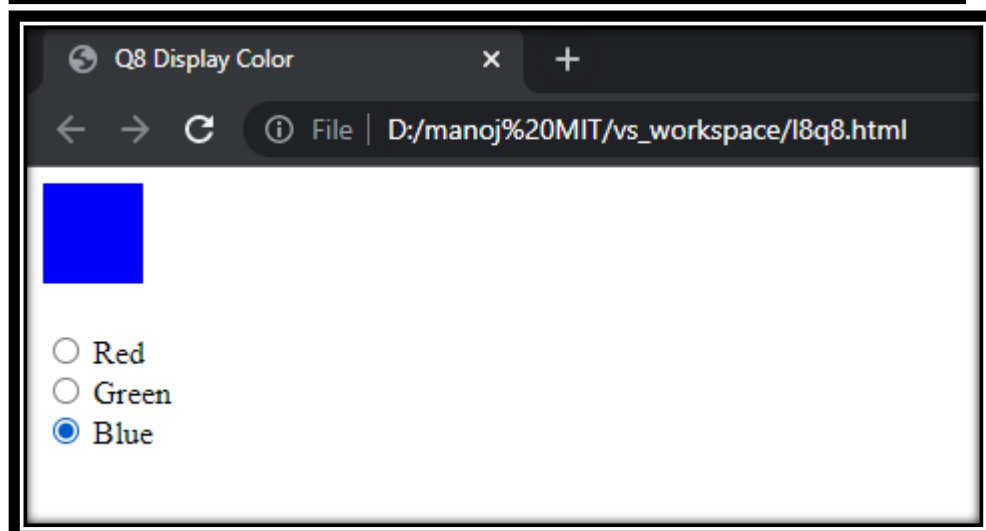
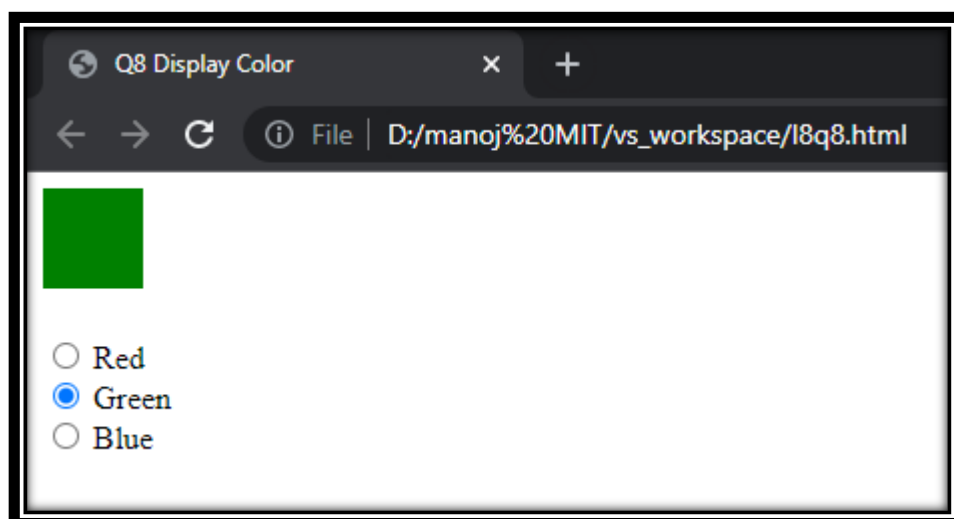
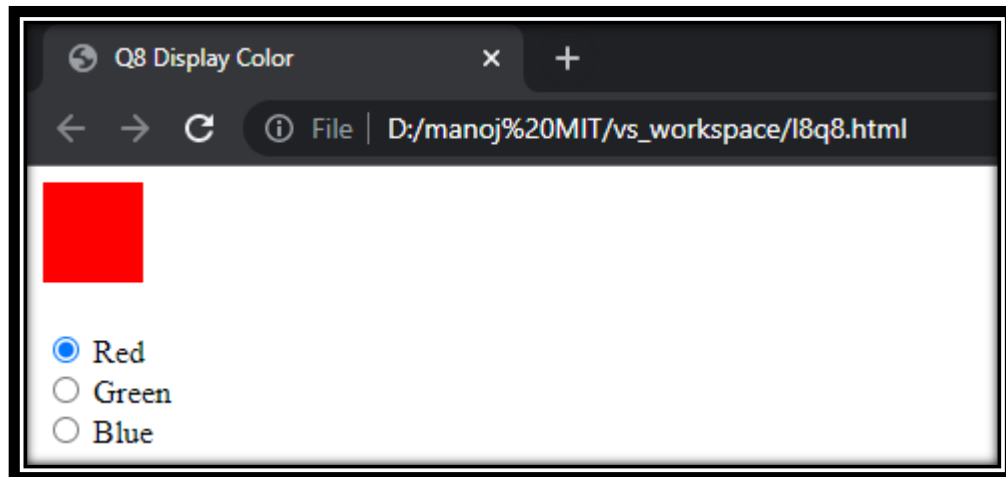


HTML Code :

```
<!DOCTYPE html>
<html>
<head>
<title>Q8 Display Color</title>
</head>
<script type="text/javascript">
function red(){
var canvas = document.getElementById("canvas");
var ctx = canvas.getContext("2d");
ctx.fillStyle = "red";
ctx.fillRect(0, 0, 50, 50);
}
function green(){
var canvas = document.getElementById("canvas");
var ctx = canvas.getContext("2d");
ctx.fillStyle = "green";
ctx.fillRect(0, 0, 50, 50);
}
function blue(){
var canvas = document.getElementById("canvas");
var ctx = canvas.getContext("2d");
ctx.fillStyle = "blue";
ctx.fillRect(0, 0, 50, 50);
}
</script>
<body>
<canvas width=70 height=70 id="canvas"></canvas>
<form>
<input type="radio" onclick="red();" > Red<br>
<input type="radio" onclick="green();" > Green<br>
<input type="radio" onclick="blue();" > Blue
</form>
```

```
</body>  
</html>
```

Output :



9. Write the HTML5 program to display following with validation to each field.

Name [take only capital letters]:

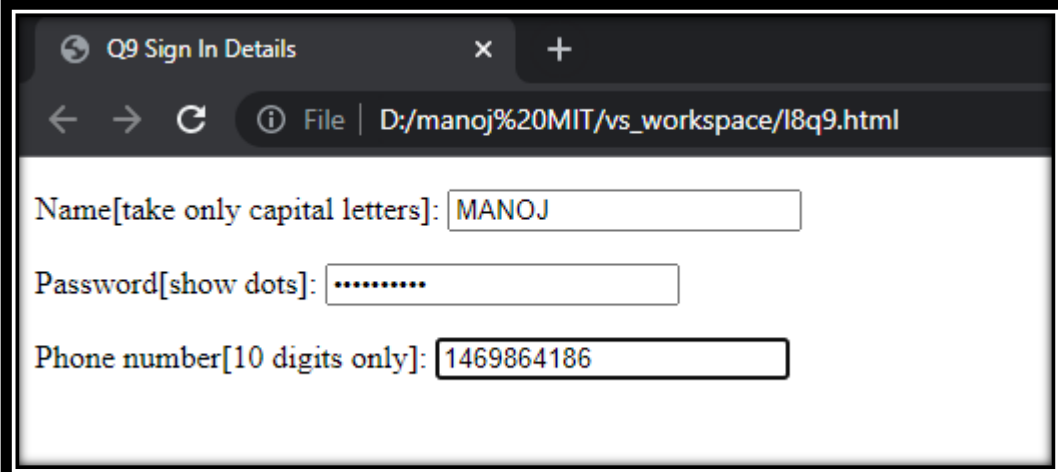
Password[show stars]:

Phone Number[10 digits only]:

HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q9 Sign In Details</title>
</head>
<body>
  <p>Name[take only capital letters]:
  <input type="text" name="onlyalphabet" onkeypress="return (event.charCode >
64 &&
event.charCode < 91)">
  </p>
  <p>Password[show dots]:
  <input type="password" name="pwd" maxLength="10">
  </p>
  <p>Phone number[10 digits only]:
  <input type="text" id="phone" name="phone" maxLength="10" pattern="[1-
9]{1}[0-9]{9}">
  </p>
</body>
</html>
```

Output :



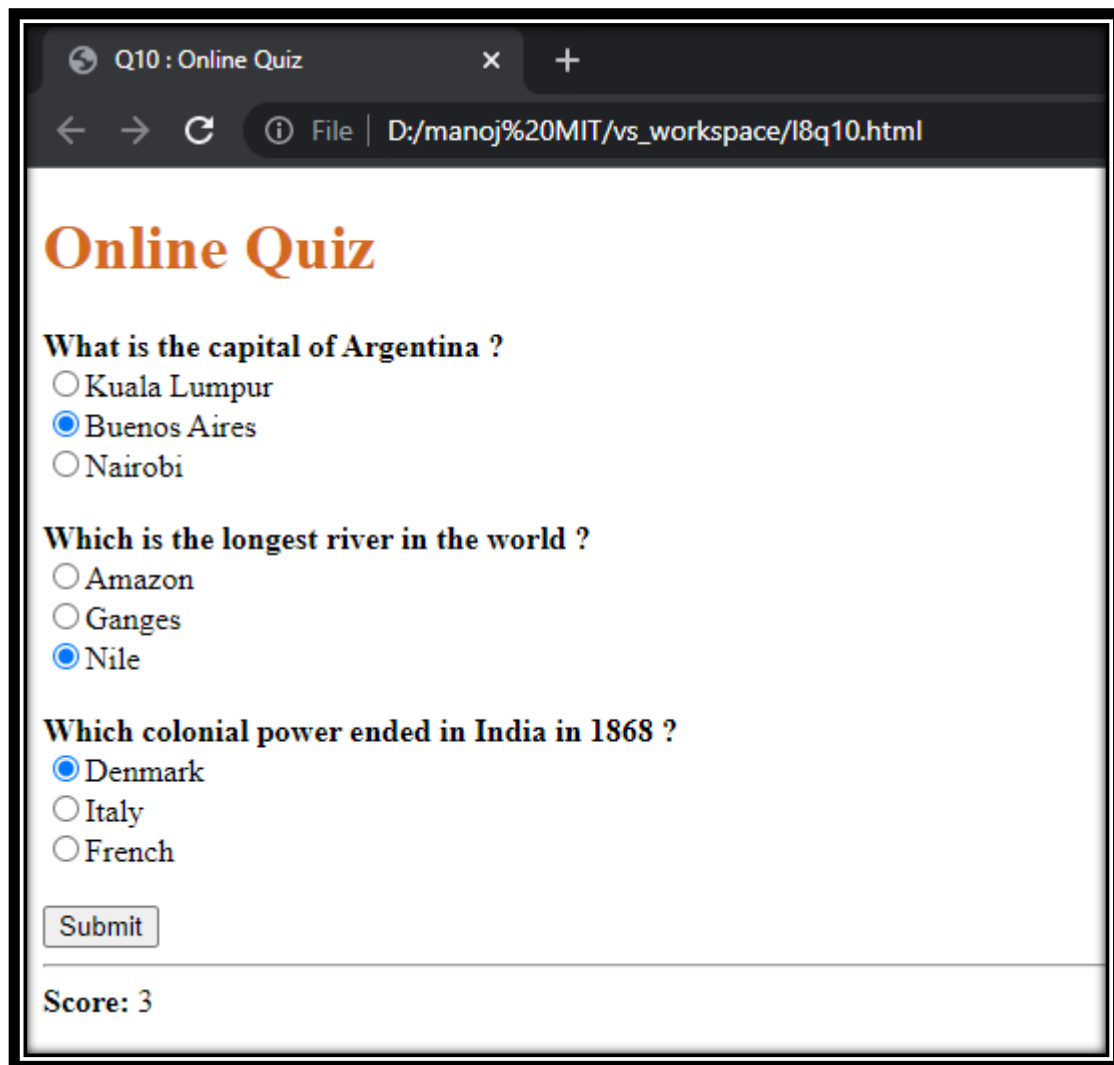
The screenshot shows a web browser window titled "Q9 Sign In Details". The address bar displays the file path "D:/manoj%20MIT/vs_workspace/l8q9.html". The form contains three input fields: "Name[take only capital letters]:" with the value "MANOJ", "Password[show dots]:" with masked characters ".....", and "Phone number[10 digits only]:" with the value "1469864186".

10. Write a JavaScript program to perform an online quiz.

HTML Code :

```
<!DOCTYPE html>
<html>
<head>
  <title>Q10 : Online Quiz</title>
</head>
<body>
  <h1 style = "text-align: left;color:chocolate">Online Quiz</h1>
  <script type="text/javascript">
    function calculate_score() {
      var score = 0;
      if (document.getElementById("q12").checked)
        score += 1;
      if (document.getElementById("q23").checked)
        score += 1;
      if (document.getElementById("q31").checked)
        score += 1;
      document.getElementById('Score').innerHTML = " "+score;
    }
  </script>
  <b>What is the capital of Argentina ? </b><br>
  <input type="radio" name="q1" id="q11">Kuala Lumpur<br>
  <input type="radio" name="q1" id="q12">Buenos Aires<br>
  <input type="radio" name="q1" id="q13">Nairobi<br><br>
  <b>Which is the longest river in the world ? </b><br>
  <input type="radio" name="q2" id="q21">Amazon<br>
  <input type="radio" name="q2" id="q22">Ganges<br>
  <input type="radio" name="q2" id="q23">Nile<br><br>
  <b>Which colonial power ended in India in 1868 ?</b><br>
  <input type="radio" name="q3" id="q31">Denmark<br>
  <input type="radio" name="q3" id="q32">Italy<br>
  <input type="radio" name="q3" id="q33">French<br><br>
  <button onclick="calculate_score()">Submit</button><br><hr>
  <b>Score:</b>
  <span id="Score"></span>
</body>
</html>
```

Output :



The screenshot shows a web browser window with a single tab titled "Q10 : Online Quiz". The address bar displays the file path "D:/manoj%20MIT/vs_workspace/l8q10.html". The page content features a large orange heading "Online Quiz". Below this, there are three multiple-choice questions. The first question asks for the capital of Argentina, with "Buenos Aires" selected. The second question asks for the longest river in the world, with "Nile" selected. The third question asks which colonial power ended in India in 1868, with "Denmark" selected. A "Submit" button is located below the questions. At the bottom of the page, the text "Score: 3" is displayed.

Q10 : Online Quiz

File | D:/manoj%20MIT/vs_workspace/l8q10.html

Online Quiz

What is the capital of Argentina ?

- ☐ Kuala Lumpur
- ☒ Buenos Aires
- ☐ Nairobi

Which is the longest river in the world ?

- ☐ Amazon
- ☐ Ganges
- ☒ Nile

Which colonial power ended in India in 1868 ?

- ☒ Denmark
- ☐ Italy
- ☐ French

Submit

Score: 3
