6.a) write a program to embed internal and external javascript in a web page.

script.js

```
// script.js
function showAlertExternal() {
    alert('This is an external JavaScript alert!');
}
```

HTML FILE

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Embedding Internal and External JavaScript</title>
    <script src="script.js"></script> <!-- Link to external JavaScript file -->
    <script>
        // Internal JavaScript
        function showAlertInternal() {
            alert('This is an internal JavaScript alert!');
        }
```

```html
    </script>
</head>
<body>
    <h1>Embedding Internal and External JavaScript</h1>
    <button onclick="showAlertInternal()">Internal JavaScript Alert</button>
    <button onclick="showAlertExternal()">External JavaScript Alert</button>
</body>
</html>
```

Explanation:

1. **External JavaScript**:
   - The external JavaScript file `script.js` contains a function `showAlertExternal` that displays an alert when called.
   - The HTML file links to this external JavaScript file using the `<script src="script.js"></script>` tag in the `<head>` section.
2. **Internal JavaScript**:
   - The internal JavaScript is included directly within the HTML file inside a `<script>` tag in the `<head>` section.
   - The internal JavaScript contains a function `showAlertInternal` that displays an alert when called.
3. **HTML Content**:
   - The HTML body contains two buttons. Each button has an `onclick` attribute that calls one of the JavaScript functions.
   - The first button calls the `showAlertInternal` function, demonstrating the use of internal JavaScript.
   - The second button calls the `showAlertExternal` function, demonstrating the use of external JavaScript.

How to Run:

1. Save the external JavaScript code in a file named `script.js`.
2. Save the HTML code in a file named `index.html`.
3. Open `index.html` in a web browser.
4. Click the buttons to see alerts triggered by the internal and external JavaScript functions.

6.b) write a program to explain the different ways for displaying output.

```html
<html>
 <body>
   <h1>Output</h1>
   <p id="output"></p>
   <script src="script.js"></script>
 </body>
</html>
```

<u>Script.js</u>

```javascript
// Method 1: Using alert() function
alert("Hello, World!");


// Method 2: Using document.write() function
document.write("Hello, World! <br>");


// Method 3: Using console.log() function
console.log("Hello, World!");


// Method 4: Using innerHTML property
let output = document.getElementById("output");
output.innerHTML = "Hello, World!";
```

```
// Method 5: Using prompt() function

let name = prompt("What is your name?");

document.write("Hello, " + name + "!");


// Method 6: Using confirm() function

let response = confirm("Are you sure?");

if (response) {

  document.write("You clicked OK!");

} else {

  document.write("You clicked Cancel!");

}
```

1. alert() function: Displays a pop-up alert box with the specified message.

2. document.write() function: Writes the specified message to the HTML document.

3. console.log() function: Writes the specified message to the browser's console.

4. innerHTML property: Sets the HTML content of an element with the specified ID.

5. prompt() function: Displays a pop-up prompt box that asks the user for input.

6. confirm() function: Displays a pop-up confirmation box that asks the user to confirm or cancel.

6.c) write a program to explain the different ways for taking input.

```html
<html>
  <body>
    <form id="myForm">
      <input type="text" id="myInput" />
      <button type="submit">Submit</button>
    </form>
    <script src="script1.js"></script>
  </body>
</html>
```

Script1.js:

```javascript
// Method 1: Using prompt() function
let name = prompt("What is your name?");
document.writeln("Hello, " + name + "!");
// Method 2: Using confirm() function
let response = confirm("Are you sure?");
if (response) {
  document.writeln("You clicked OK!");
} else {
  document.writeln("You clicked Cancel!");
}
```

```javascript
// Method 3: Using HTML form and JavaScript
let form = document.getElementById("myForm");
let inputField = document.getElementById("myInput");
form.addEventListener("submit", function(event) {
  event.preventDefault();
  let inputValue = inputField.value;
  document.writeln("You entered: " + inputValue);
});
// Method 4: Using JavaScript readline() function (Node.js)
// Note: This method only works in Node.js environment
const readline = require("readline");
const rl = readline.createInterface({
  input: process.stdin,
  output: process.stdout
});
rl.question("What is your name? ", function(answer) {
  console.log("Hello, " + answer + "!");
  rl.close();
});
```

1. prompt() function: Displays a pop-up prompt box that asks the user for input.

2. confirm() function: Displays a pop-up confirmation box that asks the user to confirm or cancel.

3. HTML form and JavaScript: Uses an HTML form to collect user input, and JavaScript to process the input.

4. readline() function (Node.js): Uses the readline module in Node.js to read user input from the console.

6.d) create a webpage which uses prompt dialogue box to ask a voter for his name and age . display the information in table format along with either the voter can vote or not.

```html
<!DOCTYPE html>
<html>
<head>
  <title>Voter Information</title>
  <style>
    table {
      border-collapse: collapse;
    }
    th, td {
      border: 1px solid black;
      padding: 10px;
    }
  </style>
</head>
<body>
  <h2>Voter Information</h2>
  <button onclick="getVoterInfo()">Get Voter Info</button>
  <div id="voterInfo"></div>
```

```html
<script>
  function getVoterInfo() {
    let name = prompt("Please enter your name:");
    let age = parseInt(prompt("Please enter your age:"));
    let votingEligibility = (age >= 18) ? "Eligible" : "Not Eligible";
    let voterInfoHtml = `
      <table>
        <tr>
          <th>Name</th>
          <th>Age</th>
          <th>Voting Eligibility</th>
        </tr>
        <tr>
          <td>${name}</td>
          <td>${age}</td>
          <td>${votingEligibility}</td>
        </tr>
      </table>
```

```
    `;
document.getElementById("voterInfo").innerHTML =
voterInfoHtml;

    }
  </script>
</body>
</html>
```