Assignment of Module 4 (Java Script & DoM)

Que.1   **What is JavaScript?**

Ans.1   JavaScript is a scripting language that enables you to create dynamically updating content, control multimedia, animate images

Que.2   **What is the use of isNaN function?**

Ans.2   "NaN" stands for "Not a Number". **isNaN()** Function is used to check whether a given value is an illegal number or not. It returns true if the value is a NaN else returns false.

Que.3   **What is negative Infinity?**

Ans.3   Negative Infinity is a constant value that is used to represent a value that is the lowest available. This means that no other number is lesser than this value.

Que.4   **Which company developed JavaScript?**

Ans.4   Netscape Communications developed JavaScript.

Que.5   **What are undeclared and undefined variables?**

Ans.5   **Undefined:** It occurs when a variable has been declared but has not been assigned any value. Undefined is not a keyword.
Undeclared: It occurs when we try to access any variable that is not initialized or declared earlier using the var or const keyword.

Que.6 **Write the code for adding new elements dynamically?**

Ans.6

```html
            <!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content= "width=device-width, initial-scale=1.0">

</head>

<body>
  <div>
    <button id="addEle">Add Element</button>
  </div>
  <div class="dyEle"></div>
  <script type="text/javascript">

    // parent element for the new div will be created
    let task = document.getElementsByClassName("dyEle");

    // to get the addTask button element
    let addEle = document.getElementById("addEle");

    // onclick event for button
    addEle.addEventListener('click', function () {

            for (let i = 0; i < task.length; i++) {

        // New div element is created
        let newDiv = document.createElement("div");

        //To Set the attribute of class type to newDiv
        newDiv.setAttribute("class", "list");

        // Text for newDiv
        newDiv.innerText = "New Element created";

        // append the newDiv
        task[i].append(newDiv);
      }
    })
  </script>
</body>

</html>
```

Que.7   **What is the difference between ViewState and SessionState?**

Ans.7

Sr.NO	ViewState	SessionState
1	Maintained at page level only.	Maintained at session level.
2	View state can only be visible from a single page and not multiple pages.	Session state value availability is across all pages available in a user session.
3	It will retain values in the event of a postback operation occurring.	In session state, user data remains in the server. Data is available to user until the browser is closed or there is session expiration.
4	Information is stored on the client's end only.	Information is stored on the server.
5	used to allow the persistence of page-instance-specific data.	used for the persistence of user-specific data on the server's end.
6	ViewState values are lost/cleared when new page is loaded.	SessionState can be cleared by programmer or user or in case of timeouts.

Que.8   **What is === operator?**

Ans.8   JavaScript Strict Equality Operator is used to compare two operands and return true if both the value and type of operands are the same.

Que.9   **How can the style/class of an element be changed?**

Ans.9   **There are common approaches to change the style/CSS of an element.**

1. style.property
2. Changing the class itself

```
Example for Changing the Class it self

<!DOCTYPE html>
<html lang="en">

<head>
  <style>
    .hide {
      display: none;
    }

    .blueColor {
      color: blue;
    }
  </style>
</head>

<body>
  <h1 style="color: green;">
   Payalba Parmar
  </h1>

  <h2>
    How can the style/class of
    an element be changed?
  </h2>

  <h3>Hide and Show the Para</h3>

  <p>
    "Natural force" redirects here. For the music album, see Natural Force.

    Land management has preserved the natural characteristics of Hopetoun Falls,
Australia while allowing ample access for visitors.

    An image of the Sahara Desert from satellite. It is the world's largest hot desert
and third-largest desert after the polar deserts.
    The natural environment or natural world encompasses all living and non-living
things occurring naturally, meaning in this case not artificial.
    The term is most often applied to Earth or some parts of Earth.
    This environment encompasses the interaction of all living species, climate,
weather and natural resources that affect human survival and economic activity.
```

```html
    [1] The concept of the natural environment can be distinguished as components:

    Complete ecological units that function as natural systems without massive
civilized human intervention,
     including all vegetation, microorganisms, soil, rocks, the atmosphere, and
natural phenomena that occur within their boundaries and their nature.
    Universal natural resources and physical phenomena that lack clear-cut
boundaries, such as air, water,
    and climate, as well as energy, radiation, electric charge, and magnetism, not
originating from civilized human actions.
  </p>

  <button id="hide">Hide</button>
  <button id="show">Show</button>
  <button id="color">Change Color</button>

  <script>
    const btn_hide = document.getElementById("hide");
    const btn_show = document.getElementById("show");
    const btn_color = document.getElementById("color");

    const para = document.querySelector("p");
    btn_hide.addEventListener("click", function () {
      para.classList.add("hide");
    });

    btn_show.addEventListener("click", function () {
      para.classList.remove("hide");
    });

    btn_color.addEventListener("click", function () {
      para.classList.toggle("blueColor");
    });
  </script>
</body>

</html>
```

Que.10   **How to read and write a file using JavaScript?**

Ans.11   **writeFile()** is used to write into the file in JavaScript.

The syntax: writeFile (path, InputData, callBackFunction)

the **readFile()** function is used to read the file in JavaScript,After the File
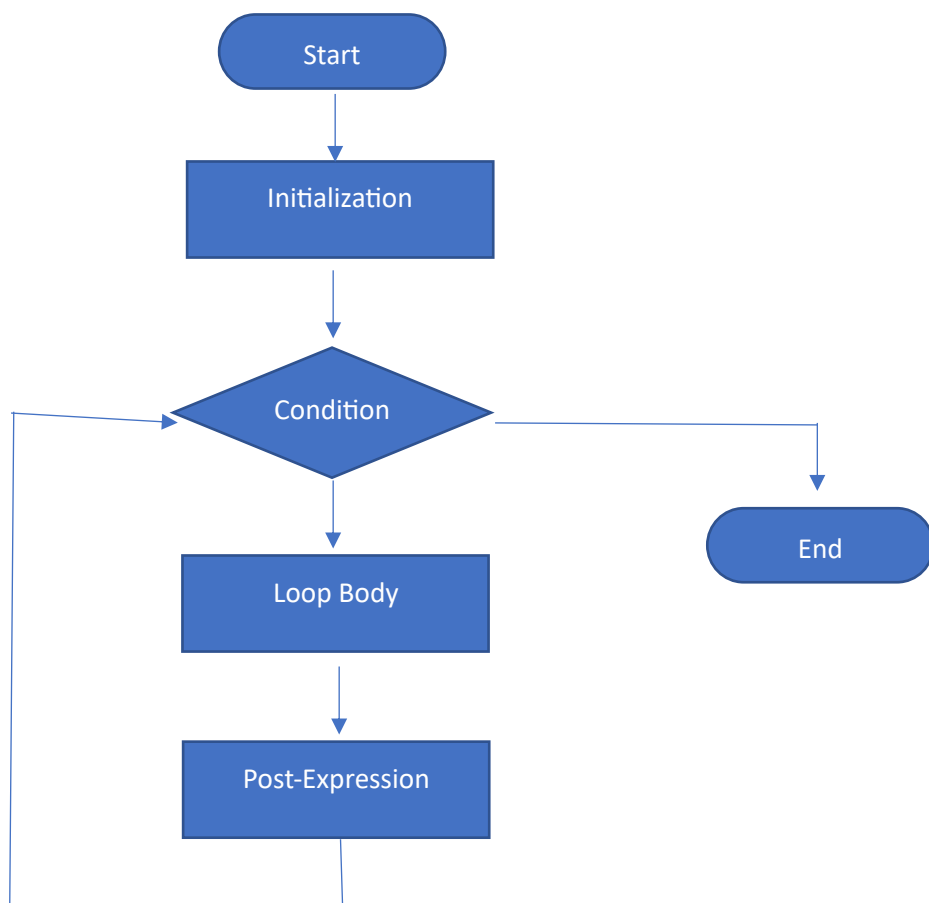System module is imported.

The syntax: readFile (path, Format, callBackFunction)

Que.11 **What are all the looping structures in JavaScript?**

Ans.11 The JavaScript loops are used to iterate the piece of code using for, while,do while or for-in loops. It makes the code compact. It is mostly used in array.

There are four types of loops in JavaScript.

1. for loop
2. while loop
3. do-while loop
4. for-in loop
5. for-of loop

```
         ┌──────────┐
         │  Start   │
         └──────────┘
              │
              ▼
      ┌────────────────┐
      │ Initialization │
      └────────────────┘
              │
              ▼
         ◇ Condition ◇ ──────────►  ┌────────┐
              │                     │  End   │
              ▼                     └────────┘
      ┌────────────────┐
      │   Loop Body    │
      └────────────────┘
              │
              ▼
      ┌────────────────┐
      │ Post-Expression│
      └────────────────┘
```

Que.12 **How can you convert the string of any base to an integer in JavaScript?**

Ans.12 There's a function called parseInt() in JavaScript, this is used for parsing a string as an argument and it returns an integer of the specified radix (basically the base of the numerical system) as output.

Syntax: parseInt(value,radix)
let a = "100";
console.log ("write String: " + typeof a);
console.log("string conversion: " + typeof parseInt(a));

Que.13 **What is the function of the delete operator?**

Ans.13 The **delete** operator removes a property from an object. If the property's value is an object and there are no more references to the object, the object held by that property is eventually released automatically.

Que.14 **What are all the types of Pop-up boxes available in JavaScript?**

Ans.14 JavaScript has three kind of popup boxes: Alert box, Confirm box, and Prompt box.

Que.15 **What is the use of Void (0)?**

Ans.15 It is often used when inserting an expression in a web page might produce some unwanted effect. To remove this effect, "javascript:void(0)" is used. This expression returns undefined primitive value. This is often used with hyperlinks.

Que.16 **How can a page be forced to load another page in JavaScript?**

Ans.16 you can force a page to load another page by using the window.location object.

Que.17 **What are the disadvantages of using inner HTML in JavaScript?**

Ans.17 There are following Disadvantages of using innerHTML in JavaScript:

- The process of using innerHTML is much slower as its contents as slowly built, also already parsed contents and elements are also re-parsed which takes time.
- The event handlers do not get attached to the new elements created by setting innerHTML automatically. To do so one has to keep track of the event handlers and attach it to new elements manually. This may cause a memory leak on some browsers.
- Either you add, append, delete or modify contents on a webpage using innerHTML, all contents is replaced, also all the DOM nodes inside that element are reparsed and recreated.
- There is no proper validation provided by innerHTML, so any valid HTML code can be used.