**Advance JavaScript**

**MODULE: 1 (Introduction and Code Quality)**

1. **Write a program to Show an alert**

**Ans.** The **alert()** method in JavaScript is used to display a virtual alert box. It is mostly used to give a warning message to the users. It displays an alert dialog box that consists of some specified message (which is optional) and an OK button. When the dialog box pops up, we have to click "OK" to proceed.

The alert dialog box takes the focus and forces the user to read the specified message. So, we should avoid overusing this method because it stops the user from accessing the other parts of the webpage until the box is closed.

We can understand the usefulness of the alert method using an example. Suppose we have to fill a form for an identity card. It asks about the date of birth for the eligibility criteria of the identity card. If the age is 18 years or above, then the process will continue. Otherwise, it will show a warning message that the age is below 18 years. This warning message is the 'Alert Box'.

Another example is suppose a user is required to fill the form in which some mandatory fields are required to enter some text, but the user forgets to provide the input. As the part of the validation, we can use the alert dialog box to show a warning message related to fill the textfield.

**Example1**

<!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">

<title>Document</title>

<script type = "text/javascript">

function fun() {

alert ("This is an alert dialog box");

}

</script>

</head>

<body>

<p> Click the following button to see the effect </p>

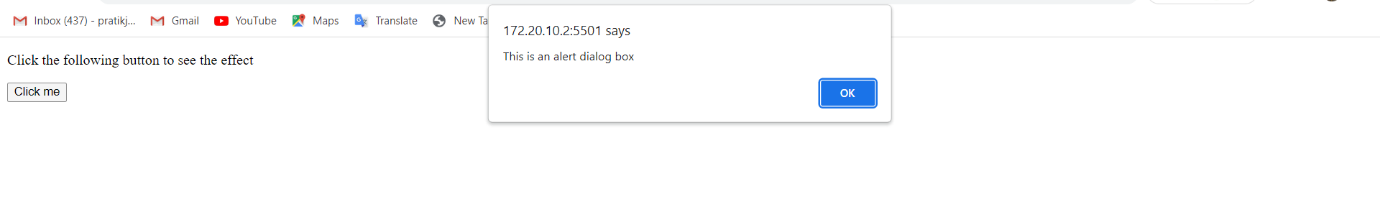
<form>

<input type = "button" value = "Click me" onclick = "fun();" />

</form>

</body>

</html>

Output

1. **What will be the result for these expressions?**
2. **5>4**

**Ans.**Obviously True

1. **“apple” >“pineapple”**

**Ans.** Dictionary comparison, hence false. "a" is smaller than "p".

1. **"2" > "12"**

**Ans.** True, Again, Dictionary comparison, first char “2” is grater than the first char “1”.

1. **undefined == null**

**Ans.**True, Value null and undefined equal each other only.

1. **undefined === null**

**Ans.** Strict equality is strict. Different types from both sides lead to False.

1. **null == "\n0\n"**

**Ans.** False, Similar to (4), null only equals undefined.

1. **null === +"\n0\n"**

**Ans.** False, Strict equality of different types.

**3.Will alert be shown?**

If (“0”){ alret (‘Hello’);}

**Ans.** **Yes, it will.**

Any string except an empty one (and "0" is not empty) becomes true in the logical context.

We can run and check:

**Example:**

<!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">

    <title>Document</title>

</head>

<body>

    <script>

        if ("0") {

  alert( 'Hello' );

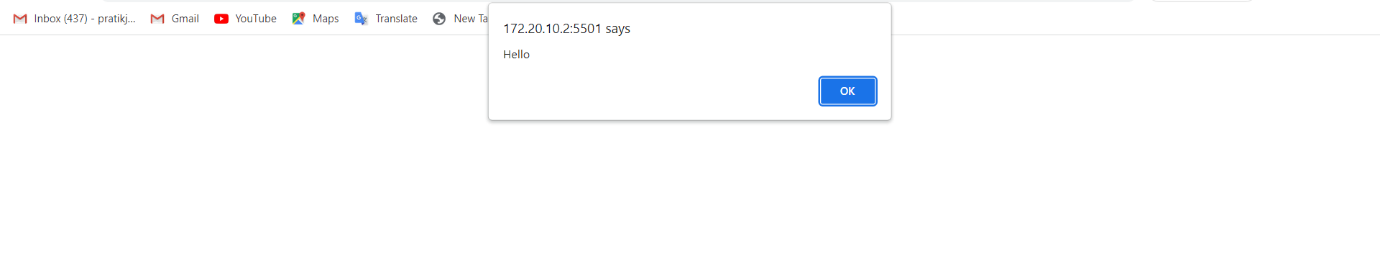
}

    </script>

</body>

</html>

Output:



**4.What is the code below going to output? alert( null || 2 || undefined );**

**Ans.** The answer is 2, that’s the first truthy value.

Input:

<!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">

    <title>Document</title>

</head>

<body>

    <script>

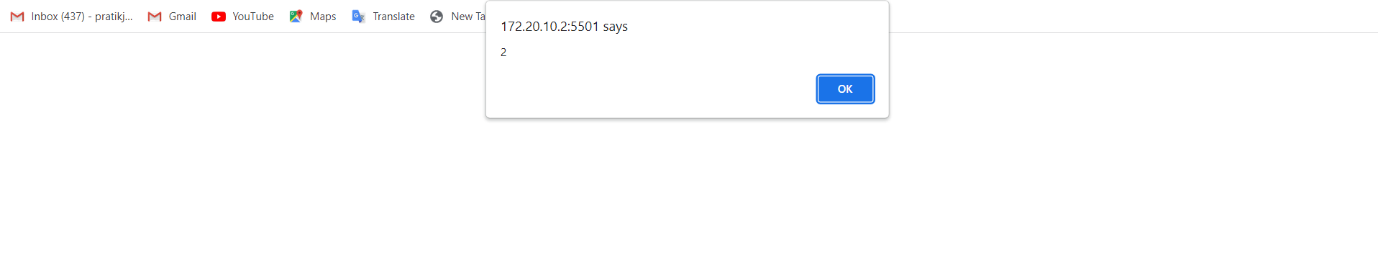
        alert( null || 2 || undefined );

    </script>

</body>

</html>

Output:



**5.The following function returns true if the parameter age is greater than 18. Otherwise it asks for a confirmation and returns its result: function**

checkAge(age)

{ if (age> 18) { return true; }

else { // ...return confirm (‘did parents allow you?'); } }

**Ans.**

Input:

<!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">

    <title>Document</title>

</head>

<body>

    <script>

    function checkAge(age) {

  if (age > 18) {

    return true;

  } else {

    return confirm('did parents allow you?');

  }

}

let age = prompt('How old are you?', 18);

if ( checkAge(age) ) {

  alert( 'Access granted' );

} else {

  alert( 'Access denied' );

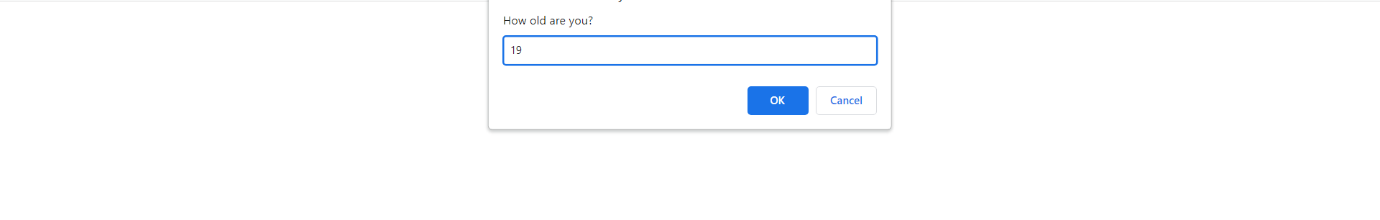
}

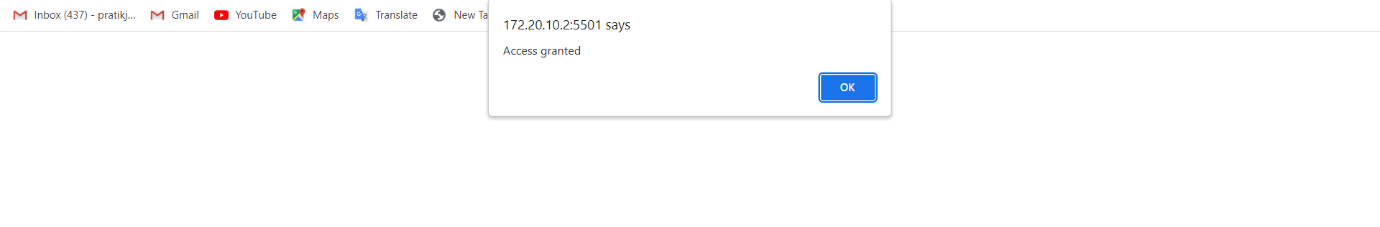
</script>

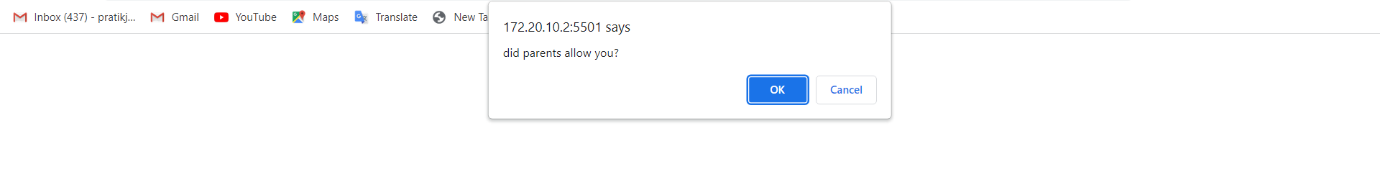
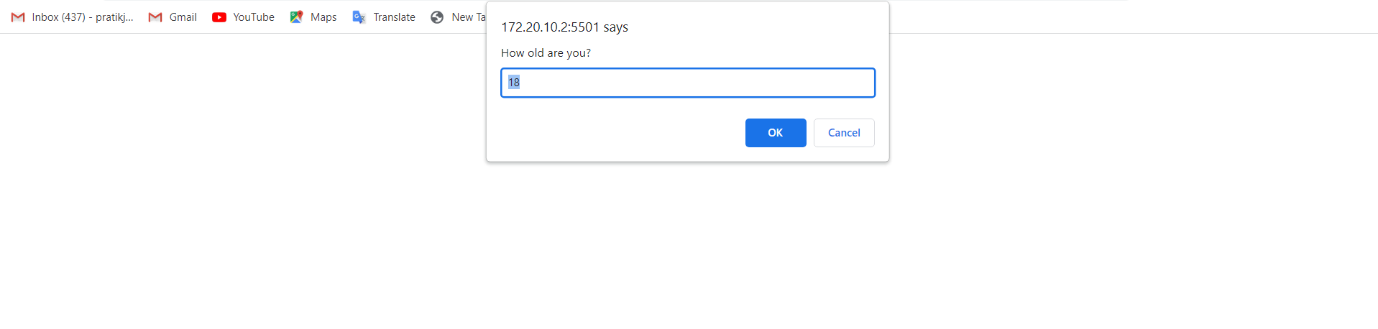
</body>

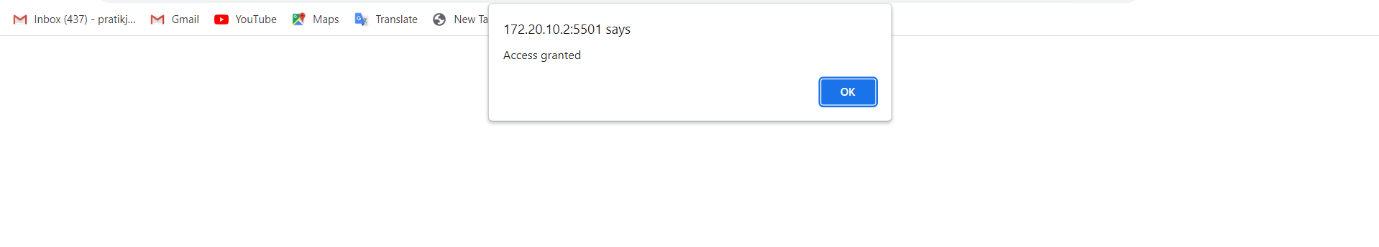
</html>

Output:









**6.Replace Function Expressions with arrow functions in the code below:**

Function ask(question, yes, no)

{ if (confirm(question))yes(); else no(); }

ask("Do you agree?", function() { alert("You agreed."); },

function()

{ alert("You canceled the execution."); } }

**Ans.** **Example 1:**

Input:

<script>

        function ask(question, yes, no) {

  if (confirm(question)) yes();

  else no();

}

ask(

  "Do you agree?",

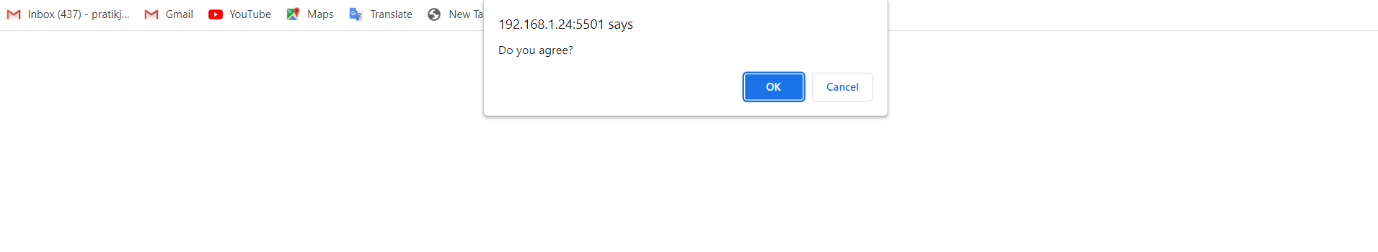
  function() { alert("You agreed."); },

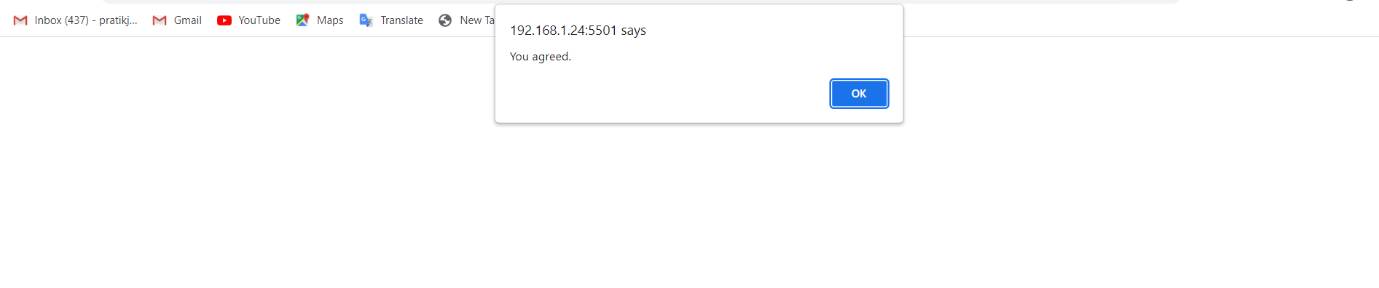
  function() { alert("You canceled the execution."); }

);

    </script>

Output:





**Example 2:**

Input:

<script>

        function ask(question, yes, no) {

  if (confirm(question)) yes();

  else no();

}

ask(

  "Do you agree?",

   alert("You agreed."),

   alert("You canceled the execution.")

);

     </script>

Output:

