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Statement Purpose:

To familiarize the students with

- ▣ JavaScript Functions
- ▣ Arrow functions
- ▣ Objects
- ▣ Exception Handling
- ▣ Browser Object Model (BOM)

Activity 1:

```
<p id="demo"></p>
```

```
<script>
```

```
function myFunction(p1, p2) {  
    return p1 * p2;  
}
```

```
document.getElementById("demo").innerHTML = myFunction(4, 3);
```

```
</script>
```

---

Activity 2:

```
<p id="demo"></p>
```

```
<script>
```

```
var x = myFunction(4, 3);
```

```
document.getElementById("demo").innerHTML = x;
```

```
function myFunction(a, b) {  
    return a * b;  
}
```

```
</script>
```

---

**Activity 3:**

**You can reuse code**

```
<p id="demo"></p>
```

```
<script>
```

```
function toCelsius(f) {  
    return (5/9) * (f-32);
```

```
}  
document.getElementById("demo").innerHTML = toCelsius(77);  
</script>
```

---

#### **Activity 4:**

##### **Arrow Function**

```
<p id="demo"></p>  
<script>  
var hello;  
hello = function() {  
    return "Hello World!";  
}  
document.getElementById("demo").innerHTML = hello();  
</script>
```

---

#### **Activity 5:**

```
<p id="demo"></p>  
<script>  
var hello;  
hello = () => {  
    return "Hello World!";  
}  
document.getElementById("demo").innerHTML = hello();  
</script>
```

---

#### **Activity 6:**

##### **Arrow Functions Return Value by Default:**

```
<p id="demo"></p>  
<script>  
var hello;  
hello = () => "Hello World!";  
document.getElementById("demo").innerHTML = hello();  
</script>
```

---

#### **Activity 7:**

## Parameter

```
<p id="demo"></p>
<script>
var hello;
hello = (val) => "Hello " + val;
document.getElementById("demo").innerHTML = hello("Universe!");
</script>
```

With a regular function **this** represents the object that *calls* the function:

```
<button id="btn">Click Me!</button>
<p id="demo"></p>
<script>
var hello;
hello = function() {
  document.getElementById("demo").innerHTML += this;
}
//The window object calls the function:
window.addEventListener("load", hello);
//A button object calls the function:
document.getElementById("btn").addEventListener("click", hello);
</script>
```

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## Activity 8:

### EXCEPTION

```
<input id="demo" type="text">
<button type="button" onclick="myFunction()">Test Input</button>
<p id="p01"></p>

<script>
function myFunction() {
  const message = document.getElementById("p01");
  message.innerHTML = "";
  let x = document.getElementById("demo").value;
```

```

try {
  if(x == "") throw "empty";
  if(x < 5) throw "too low";
  if(x > 10) throw "too high";
}
catch(err) {
  message.innerHTML = "Input is " + err;
}
}
</script>

```

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### Activity 9:

```

<script>
function myFunction() {
  const message = document.getElementById("p01");
  message.innerHTML = "";
  let x = document.getElementById("demo").value;
  try {
    if(x == "") throw "is empty";
    if(x > 10) throw "is too high";
    if(x < 5) throw "is too low";
  }
  catch(err) {
    message.innerHTML = "Input " + err;
  }
  finally {
    document.getElementById("demo").value = "";
  }
}
</script>

```

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## Browser Object Model

## Window Object

### confirm()

1. `<script type="text/javascript">`
2. `function msg(){`
3. `var v= confirm("Are u sure?");`
4. `if(v==true){`
5. `alert("ok");`
6. `}`
7. `else{`
8. `alert("cancel");`
9. `}`
10. `}`
11. `</script>`
12. `<input type="button" value="delete record" onclick="msg()"/>`

### Prompt()

1. `<script type="text/javascript">`
2. `function msg(){`
3. `var v= prompt("Who are you?");`
4. `alert("I am "+v);`
5. `}`
6. `</script>`
7. `<input type="button" value="click" onclick="msg()"/>`

### Open()

1. `<script type="text/javascript">`
2. `function msg(){`
3. `open("http://www.javatpoint.com");`
4. `}`
5. `</script>`
6. `<input type="button" value="javatpoint" onclick="msg()"/>`

### Settimeout()

1. `<script type="text/javascript">`
2. `function msg(){`
3. `setTimeout(`
4. `function(){`

5. alert("Welcome to Javatpoint after 2 seconds")
6. },2000);
7. }
8. **</script>**
9. **<input type="button" value="click" onclick="msg()"/>**

### Screen Object

```
<p id="demo"></p>
  <p id="new"></p>
  <script>
    document.getElementById("demo").innerHTML = "Screen width is " +
screen.width;

    document.getElementById("new").innerHTML = "Screen width is " +
screen.height;
  </script>
<h2>JavaScript Window</h2>
```

---

```
<p id="demo"></p>
<script>
document.getElementById("demo").innerHTML =
"Browser inner window width: " + window.innerWidth + "px<br>" +
"Browser inner window height: " + window.innerHeight + "px";
</script>
```

---

### Navigator

```
<h2>JavaScript Navigator Object</h2>
```

```
<script>

  document.writeln("<br/>navigator.appCodeName: " +
navigator.appCodeName);

  document.writeln("<br/>navigator.appName: " + navigator.appName);
  document.writeln("<br/>navigator.appVersion: " + navigator.appVersion);
  document.writeln("<br/>navigator.cookieEnabled: " + navigator.cookieEnabled);
  document.writeln("<br/>navigator.language: " + navigator.language);
  document.writeln("<br/>navigator.userAgent: " + navigator.userAgent);
  document.writeln("<br/>navigator.platform: " + navigator.platform);
```

```
document.writeln("<br/>navigator.onLine: " + navigator.onLine);  
document.writeln("<br/>navigator.onLine: " + navigator.product);  
</script>
```

Set and Get cookies

```
<script>  
function setCookie(cname,cvalue,exdays) {  
    const d = new Date();  
    d.setTime(d.getTime() + (exdays*24*60*60*1000));  
    let expires = "expires=" + d.toUTCString();  
    document.cookie = cname + "=" + cvalue + ";" + expires + ";path=/";  
}  
function getCookie(cname) {  
    let name = cname + "=";  
    let decodedCookie = decodeURIComponent(document.cookie);  
    let ca = decodedCookie.split(';');
```

### Tasks

- ▣ Define an arrow function `divideByTwo` which accepts a number and returns that number divided by 2.
- ▣ Write a JavaScript code to set and get cookies
- ▣ Write a JavaScript code to generate the random string using Math function