**The HTML DOM is an Object Model for HTML. It defines: HTML elements as objects.Properties for all HTML elements.Methods for all HTML elements Events for all HTML elements.The HTML DOM is an API (Programming Interface) for JavaScript:JavaScript can add/change/remove HTML elements.JavaScript can add/change/remove HTML attributesJavaScript can add/change/remove CSS styles.JavaScript can react to HTML events.JavaScript can add/change/remove HTML events**

**The HTML DOM can be accessed with JavaScript In the DOM, all HTML elements are defined as objects.**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<h2>JavaScript HTML Events</h2>**

**<h2 onclick="this.innerHTML='Ooops!'">Click on this text!</h2>**

**</body>**

**</html>**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<h1 onclick="changeText(this)">Click on this text!</h1>**

**<script>**

**function changeText(id) {**

**id.innerHTML = "Ooops!";**

**}**

**</script>**

**</body>**

**</html>**

**------------------------------------------------------------**

**The onmouseover and onmouseout events can be used to trigger a function when the user mouses over, or out of, an HTML element:**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<div onmouseover="fun1(this)" onmouseout="fun2(this)" style="background-color:#D94A38;width:120px;height:20px;padding:40px;">Mouse Over Me</div>**

**<script>**

**function fun1(obj) {**

**obj.innerHTML = "Thank You"**

**}**

**function fun2(ob) {**

**ob.innerHTML = "Mouse Over Me"**

**}**

**</script>**

**</body>**

**</html>**

**---------------------------------**

**The onmousedown, onmouseup and onclick Events.The onmousedown, onmouseup, and onclick events are all parts of a mouse-click. First when a mouse-button is clicked, the onmousedown event is triggered, then, when the mouse-button is released, the onmouseup event is triggered, finally**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<div onmousedown="fun1(this)" onmouseup="fun2(this)"**

**style="background-color:yellow;width:90px;height:20px;padding:40px;">**

**Click Me</div>**

**<script>**

**function fun1(ob) {**

**ob.innerHTML = "Release Me";**

**}**

**function fun2(ob) {**

**ob.innerHTML="Thank You";**

**}**

**</script>**

**</body>**

**</html>**

**When using the addEventListener() method, the JavaScript is separated from the HTML markup, for better readability and allows you to add event listeners even when you do not control the HTML markup.You can easily remove an event listener by using the removeEventListener() method.when the mouse-click is completed, the onclick event is triggered.The addEventListener() method attaches an event handler to the specified element.The addEventListener() method attaches an event handler to an element without overwriting existing event handlers. You can add many event handlers to one element.You can add many event handlers of the same type to one element, i.e two "click" events. You can add event listeners to any DOM object not only HTML elements. i.e the window object. The addEventListener() method makes it easier to control how the event reacts to bubbling. element.addEventListener(event, function)**

**<!DOCTYPE html>**

**<html>**

**<body>**

**<h2>JavaScript addEventListener()</h2>**

**<p>This example uses the addEventListener()**

**method to attach a click event to a button.</p>**

**<button id="myBtn">Try it</button>**

**<script>**

**document.getElementById("myBtn").addEventListener("click", function()**

**{**

**alert("Hello World!");**

**}**

**);**

**</script>**

**</body>**

**</html>**

**=======================================**

**<html>**

**<head>**

**<title>Login application</title>**

**</head>**

**<body>**

**<form>**

**<h2 style="color:red"><u>Please enter your details:</u></h2>**

**Email:<input type="text" id=1><br><br>**

**Password:<input type="text" id=2><br><br>**

**<button type="button" onclick="login\_details(document.getElementById(1).value,**

**document.getElementById(2).value)">Submit</button>**

**</form>**

**<script>**

**function login\_details(email,pwd)**

**{**

**var users=[ {email:'shreenath.blore@gmail.com',**

**pwd:12345,**

**firstname:'shreenath',**

**lastname:'blore'**

**},**

**{**

**email:'shreekanth.blore@gmail.com',**

**pwd:123456,**

**firstname:'shreekanth',**

**lastname:'blore'**

**},**

**{**

**email:'sachin.tendulkar@gmail.com',**

**pwd:1234567,**

**firstname:'sachin',**

**lastname:'tendulkar'**

**} ]**

**var isPwdCorrect=false**

**var isUserFound=false**

**for(currentUser in users)**

**{**

**if(users[currentUser]['email']==email)**

**{**

**if(users[currentUser]['pwd']==pwd)**

**{**

**isPwdCorrect=true**

**isUserFound=true**

**break**

**}**

**else**

**{**

**isUserFound=true**

**break**

**}**

**}**

**else**

**isUserFound=false**

**}**

**if(isUserFound==true && isPwdCorrect==true)**

**{**

**alert("you are logged in");**

**}**

**else if(isUserFound==true && isPwdCorrect==false)**

**{**

**alert("Incorrect password")**

**}**

**else**

**{**

**alert("invalid user")**

**}**

**}**

**</script>**

**</body>**

**</html>**

**==================================================================**