Class notes

```
/form-validation.html
<html>
  <head>
    <style>
      span{color:red}
    </style>
    <script>
      function validateUsername(){   //event handler
        var uname = document.getElementById("uname").value
        if(uname.length == 0 || uname.length == ""){
          document.getElementById("s1").innerHTML = ("Username is mandatory!!")
          return false;
```

```
        }
        else if(uname.length < 5 || uname.length > 10){
            document.getElementById("s1").innerHTML =("Username length not in
range!!")
            return false
        }
        return true
    }


    function validatePassword(){   //event handler
      var pass = document.getElementById("pass").value
       if(pass.length == 0 || pass.length == ""){
         document.getElementById("s2").innerHTML =("Password is mandatory!!")
          return false
       }
        else if(pass.length < 5){
            document.getElementById("s2").innerHTML =("Password length cannot be
less than 5 chars!!")
             return false
        }
        return true
    }


    function validate(){
       if(validateUsername() && validatePassword())
           return true
       else  return false
```

```html
        }
      </script>
    </head>
    <body>
      <form onsubmit="return validate()">
        Username : <input id="uname"><span id="s1"></span><br>
        Password : <input id="pass" type="password"><span id="s2"></span><br>
        <input type="submit"><br>
      </form>
    </body>
</html>
```

/javascript-class-demo.html

```html
<html>
  <body>
    <script>
      class Student{
        constructor(id, sname){
          this.id = id
          this.sname = sname
        }
        displayStudentDetails(){
          console.log(this.id, this.sname)
        }
      }
      var s1 = new Student(101, "Akshata")
      var s2 = new Student(102, "Harita")
      s1.displayStudentDetails()

      class GradStudent extends Student{
        constructor(id, sname, gpa){
          super(id, sname)
```

```
            this.gpa = gpa
         }
          displayStudentDetails(){
             super.displayStudentDetails()
             console.log(this.gpa)
          }
       }

       var gs1 = new GradStudent(101, "aaaa", 9.2)
       gs1.displayStudentDetails()

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

```
/function Constructor-demo.html

<html>
  <body>
    <script>
      //Function constructor
      function Book(bookid, bname, author, price){
         this.bookid = bookid
         this.bname = bname
         this.author = author
         this.price = price
         this.incrPrice = function(amount){
            this.price += amount
         }
         this.display = function(){
            console.log(this.bookid, this.bname, this.author, this.price)
         }
      }

      var b1 = new Book(101, "Java", "Shubham", 400)
       var b2 = new Book(102, "JavaScript", "Shubham", 480)
        var b3 = new Book(103, "Servlets", "Shohab", 500)
         var b4 = new Book(104, "JSP", "Harsh", 450)

         var books = [b1, b2, b3, b4]
```

```
        for(book of books){
         book.incrPrice(100)
        }

        for(book of books){
         book.display()
        }




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

/ajax-demo.html

```html
<html>
  <head>
    <script>
      function getData(){
          //step-1 : retrieve the XHR object
          var xhr = new XMLHttpRequest()

          //Step-2: Make the connection
          //xhr.open(http-method, url)
          xhr.open("get", "https://jsonplaceholder.typicode.com/todos")

          //Step-3 : send teh request to the server!
          xhr.send()

          //Step-4 : get teh response from server

          xhr.onreadystatechange = function(){
             if(xhr.status == 200 && xhr.readyState == 4){
                //console.log(xhr.responseText)
                var todos = JSON.parse(xhr.responseText)

                var str = ""
                str += "<table border=1><tr><td>ID</td><td>Title of TOdo</td></tr>"
```

```html
                for(todo of todos){
                    str += "<tr><td>" + todo.id + "</td><td>" + todo.title + "</td></tr>"
                }
                str += "</table>"

            }
            document.getElementById("d1").innerHTML = str
        }
    }
    </script>
  </head>
  <body>
    <button onclick="getData()">Fetch Todo List</button>
    <div id="d1"></div>
  </body>
</html>
```

```javascript
var express = require('express');
var app = express();
const bodyParser = require('body-parser');  //parses the body of the request and lets us react to it
const cors = require('cors');   //cross-origin resource sharing

app.use(cors({
    //origin: 'http://localhost:4200/'
    origin: '*'
}));

// Configuring body parser middleware
app.use(bodyParser.urlencoded({ extended: false }));
app.use(bodyParser.json());


let courses = [
        {id:1,name:'Java'},
        {id:2,name:'AJAX'},
                {id:3,name:'Angular'}];

app.get('/', function(req, res){
```

```javascript
   let str = "<h1>Hello World </h1>"
   str += "Do you want to <a href='AddCourse.html'>Add new course</a>"
   res.send(str);
});

app.get('/AddCourse.html', function(req, res){
   res.sendFile('AddCourse.html' , { root : __dirname});
});

app.get('/api/courses', function(req, res){
   //res.send([10,20,30,40]);
   res.send(courses);
});

//logic to look for  a course with given id
app.get('/api/courses/:id', function(req, res){
   var course;
   for(c in courses){
          if(courses[c].id == parseInt(req.params.id)){
                 console.log("found ");
                 course = courses[c];
          }
   }
   res.send(course);
});

app.post('/api/courses',function(req,res){
    console.log(req.body)
    let obj = req.body
    //obj.id = courses.length+1
    obj.id = courses[courses.length-1].id+1
    console.log(obj)
               courses.push(obj);
       res.send("Added course : " + JSON.stringify(obj));
});

app.delete('/api/courses/:id', function(req, res){
   var course = {}, index=0;
   for(c in courses){
          if(courses[index].id == parseInt(req.params.id)){
                 console.log("course found for delete  " + courses[index].toString(),
index);
                 course = courses[index];
```

```
          break;
            }
      index++;
    }
  courses.splice(index,1)
  res.send(course)
  //res.send("course with id " + req.params.id + "  deleted");
});

app.listen(4000, function(){
  console.log("Server is running")
});
```

```
/ObjInitializer-demo.html

<html>

<body>
 <script>
   //Object Initizer/literal
   //JSON - JavaScript Object Notation

   var person = {pname:"Shamala", age:22}
   //console.log(person.pname, person.age) //read
   person.pname = "Harshita"  //write
   person.age = 25
   //console.log(person.pname, person.age) //read

   var student = {
      sname : "Sumit",
      age : 21.5,
      graduated : true,
      hobbies : ["Cricket","Coding", "Reading","Eating"],
      address : {city : 'Rourkela', state : "Odissa"}
   }

   /*console.log(student.sname, student.age, student.graduated)
   console.log(student.hobbies[1])
   console.log(student.address.state)*/
```

```javascript
var book = {
    bookid : 1001,
    title : "Learning Javascript",
    author : 'Shubham',
    price : 450,
    display : function(){
        console.log(this.bookid, this.author, this.title, this.price)
    },
    incrPrice : function(amount){
        this.price += amount
    }
}

/*
book.display()
book.incrPrice(100)
book.display() */


var users = [
    {uname:"Sunit", password:"sleeping"},
    {uname:"Harshita", password:"secret"},
    {uname:"admin", password:"admin123"},
    {uname:"user1", password:"pass1"}
]

var str = ""
str += "<table border='1'>"
str += "<tr><th>Username</th><th>Password</th></tr>"

for(user of users){
  str += "<tr><td>"+ user.uname + "</td><td>" + user.password + "</td></tr>"
}

str += "</table>"

document.writeln(str)



</script>
```

```
</body>

</html>
```