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	Date: 5/12/2021	Unit 4 Assignment Exercise
<u>PROBLEM STATEMENT(Even SRN's)</u>		
<ol style="list-style-type: none"> 1. Create a MongoDB database that has a collection of employees having different documents (such as emp_id, emp_name, emp_dob,emp_type, emp_dept etc)for each employee. Create a server listening to 8081 that checks the query string submitted to it and retrieves the Employee ID and full names of all employees sorted based on the parameter (either dept or eid only) passed to it. For instance, the URLhttp://localhost:8081/?dept=Sales should display Employee ID and names of employees working in sales. The URLhttp://localhost:8081/?eid=2 should display Employee ID and names of employees with Employee ID 2. 2. Create a custom module to generate random numbers and import it in your application and display the random numbers. 		
<u>OBJECTIVE</u>		
The objective of this exercise is to test the student on NodeJS and MongoDB.It evaluates the student's knowledge ofhttp server creation using Node, Reading from MongoDB and NodeJS MongoDB driver.		
<u>PREREQUISITE</u>		
In order to complete this exercise, the student needs to understand the fundamentals of HTML,CSS, and JavaScript		

DATABASE CREATION

```
> use employeeedb
switched to db employeeedb
> db.createCollection('employee')
{ "ok" : 1 }
> db.employee.insert
db.employee.insert(      db.employee.insertMany(  db.employee.insertOne(
> db.employee.insertOne({emp_id:10,emp_name:"Adi",emp_dob:08022003,emp_type:'Sales'}
... )
{
  "acknowledged" : true,
  "insertedId" : ObjectId("61ac8fabb2a2f6869e5a17d4")
}
> db.employee.insertOne({emp_id:20,emp_name:"Abc",emp_dob:02022043,emp_type:'hr'} )
{
  "acknowledged" : true,
  "insertedId" : ObjectId("61ac8fe1b2a2f6869e5a17d5")
}
> db.employee.insertOne({emp_id:30,emp_name:"Def",emp_dob:04554043,emp_type:'Sales'} )
{
  "acknowledged" : true,
  "insertedId" : ObjectId("61ac8ff3b2a2f6869e5a17d6")
}
> db.employee.insertOne({emp_id:40,emp_name:"Ghi",emp_dob:47292,emp_type:'head'} )
{
  "acknowledged" : true,
  "insertedId" : ObjectId("61ac9004b2a2f6869e5a17d7")
}
> |
```

```
_id: ObjectId("61ac8fabb2a2f6869e5a17d4")
emp_id: "10"
emp_name: "Adi"
emp_dob: 8022003
emp_type: "Sales"
```

```
> _id: ObjectId("61ac8fe1b2a2f6869e5a17d5")
emp_id: 20
emp_name: "Abc"
emp_dob: 533539
emp_type: "hr"
```

```
_id: ObjectId("61ac8ff3b2a2f6869e5a17d6")
emp_id: 30
emp_name: "Def"
emp_dob: 1234979
emp_type: "Sales"
```

```
_id: ObjectId("61ac9004b2a2f6869e5a17d7")
emp_id: 40
emp_name: "Ghi"
emp_dob: 47292
emp_type: "head"
```

PROGRAM**1)**

```
var http = require("http");
var url = require("url");
var fs = require("fs");
var qs = require("querystring");
var MongoClient = require("mongodb").MongoClient;
var url = "mongodb://localhost:27017/";
http
.createServer(function (request, response) {
  if (request.method == "GET") {
    var myurl = url.parse(request.url);
    MongoClient.connect(url, function (err, db) {
      var dbo = db.db("employeedb");
      var query = myurl.query;
      var qobj = qs.parse(query);
      dbo
        .collection("employee")
        .find(qobj)
        .toArray(function (err, result) {
          if (err) throw err;
          response.writeHead(200, { "Content-Type":
"text/html" });
          for (var i = 0; i < result.length; i++) {
            response.write(
              "<h1> Employee name : " +
                JSON.stringify(result[i].emp_name) +
                " Employee_ID : " +
                JSON.stringify(result[i].emp_id) +
                "</h1>"
            );
          }
        })
    });
  }
})
```

```
        response.end();  
        db.close();  
    });  
});  
}  
})  
.listen(8081);  
console.log("Server started");
```

2) main.js

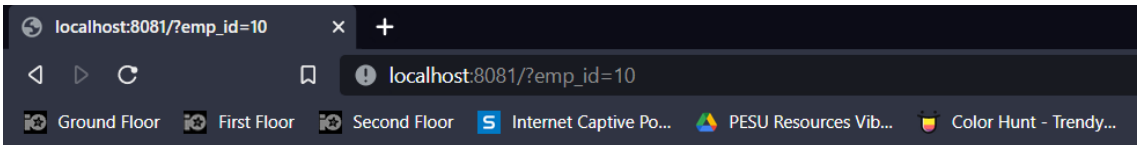
```
const fs = require("fs");  
const result = require("./module.js");  
console.log(result.re);
```

module.js

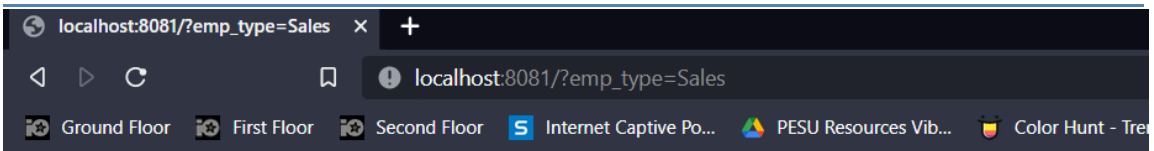
```
const result = Math.random() * (20 - 17) + 17  
exports.re = result;
```

SCREENSHOT OF YOUR OUTPUT

1)



Employee name : "Adi" Employee_ID : "10"



Employee name : "Adi" Employee_ID : "10"

Employee name : "Def" Employee_ID : 30

2)

```
PS C:\Users\adith\Documents\Web Dev> node "c:\Users\adith\Documents\Web Dev\Assignment 4\main.js"  
12.320704501125485  
PS C:\Users\adith\Documents\Web Dev> |
```