Advances In Web Technologies-(MDI3001)(L27+L28)

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LAB ASSESSMENT-5

1.) Create patient DB with necessary fields and Perform CURD operation.

PATIENT DATABASE:

>mongod.exe

```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\S.SARATH\mongod.exe
2021-11-16T10:45:34.276+0530 I CONTROL [initandlisten] MongoDB starting: pid=3
408 port=27017 dbpath=C:\data\db\64-bit host=SRUTHI
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] targetMinOS: Windows 7/W indows Server 2008 R2
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] db version v3.6.23
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] git version: d352e6a4764
659e0d0350ce77279de3cif243e5c
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] openSSL version: OpenSSL
1.0.2s-fips 28 May 2019
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] modules: none
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] modules: none
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] distand: 2008plus-ss
1
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] distarch: x86_64
2021-11-16T10:45:34.278+0530 I CONTRO
```

>mongo.exe

>show dbs;

```
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\S.$ARATH\mongo.exe
MongoDB shell version v3.6.23
connecting to: mongodb://127.0.0.1:27017/?gssapiServiceName=mongodb
Implicit session: session ( "id": UUID("934b7fb3-2ae7-4c45-96af-71d4f83d9e3e")
)
MongoDB server version: 3.6.23
Server has startup warniggs | CONTROL [initandlisten]
12021-12-02111:22:59.692*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.692*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.693*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.693*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.693*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.694*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.695*0530 | CONTROL [initandlisten]
12021-12-02111:22:59.696*0530 | CONTROL
```

Creating database and Collection:

```
Select Command Prompt - mongo.exe

> use PatientDetails
switched to db PatientDetails
> db
PatientDetails
> db.createCollection("patientdb")
{ "ok" : 1 }
>
```

Database Name: PatientDetails

Collection Name: patientdb

Inserting records:

```
("ok":1)

\( \text{obs.} \) db. patientdb. insert(\{\text{PatientId:1}, \text{PatientName:"kowshik", Age:19, Department:"Card iology", Address: "Katpadi, vellore", Email: "kowshik@gmail.com", Bloodgrp: "0+ve", Phone:9360745079, DateofAppointment:new Date("2021-11-11")>> \text{MricResult(\('\text{"Inserted":1})>} \) \) db. patientdb. insert(\{\text{PatientId:2}, \text{PatientName:"Sridhar@gmail.com", Bloodgrp: "\('\text{PatientOscope}) \) db. patientdb. insert(\{\text{PatientId:2}, \text{PatientName:"Sridhar@gmail.com", Bloodgrp: "\('\text{PatientId:3}, \text{PatientName:"Nishanth", Age:18, Department: "Card diology", Address: "Bagayam, vellore", Email: "nishanth@gmail.com", Bloodgrp: "0-ve", Phone:9360745456, DateofAppointment:new Date("2021-12-16")>> \) \\( \text{WriteResult(\('\text{"Inserted":1})>} \) \\( \text{WriteResult(\('\text{"Inserted":1})>} \) \\( \text{PatientId:4}, \text{PatientName:"Tharun", Age:23, Department: "Ortho "\('\text{Address:"Thorapadi, vellore", Email: "tharun@gmail.com", Bloodgrp: "B+ve", Phone:9360123456, DateofAppointment:new Date("2021-12-17")>> \) \\( \text{WriteResult(\('\text{"Inserted":1})>} \) \) \\( \text{Address:"Storapadi, vellore", Email: "tharun@gmail.com", Bloodgrp: "B+ve", Phone:9360123456, DateofAppointment:new Date("2021-12-17")>> \) \\( \text{WriteResult(\('\text{"Inserted":1})>} \) \\( \text{PatientId:5}, \text{PatientName: "Sheema", Age:23, Department: "Physio", Address: "Sathuvachari, vellore", Email: "sheema@gmail.com", Bloodgrp: "\('\text{AB-ve", Phone:9360123456, DateofAppointment: new Date("2021-12-18")>> \) \\( \text{WriteResult(\('\text{"Inserted":1})>} \) \\( \text{VriteResult(\('\text{"Inserted":1})>} \) \\\( \text{VriteResult(\('\text{"Inserted":1})
```

>db.patientdb.insert({PatientId:1,PatientName:"kowshik",Age:19,Department:"Cardiol ogy",Address:"Katpadi,vellore",Email:"kowshik@gmail.com",Bloodgrp:"O+ve",Phone :9360745079,DateofAppointment:new Date("2021-11-11")})

>db.patientdb.insert({PatientId:2,PatientName:"Sridhar",Age:19,Department:"Ortho", Address:"Thottapalayam,vellore",Email:"sridhar@gmail.com",Bloodgrp:"A+ve",Phone:9360745126,DateofAppointment:new Date("2021-12-15")})

>db.patientdb.insert({PatientId:3,PatientName:"Nishanth",Age:18,Department:"Cardi ology",Address:"Bagayam,vellore",Email:"nishanth@gmail.com",Bloodgrp:"O-ve",Phone:9360745456,DateofAppointment:new Date("2021-12-16")})

>db.patientdb.insert({PatientId:4,PatientName:"Tharun",Age:23,Department:"Ortho", Address:"Thorapadi,vellore",Email:"tharun@gmail.com",Bloodgrp:"B+ve",Phone:936 0123456,DateofAppointment:new Date("2021-12-17")})

>db.patientdb.insert({PatientId:5,PatientName:"Sheema",Age:23,Department:"Physio",Address:"Sathuvachari,vellore",Email:"sheema@gmail.com",Bloodgrp:"AB-ve",Phone:9450123456,DateofAppointment:new Date("2021-12-18")})

Displaying Records:

> db.patientdb.find().pretty()

```
"_id": ObjectId("61a860ff90cafa9a1058ec1a"),
    "PatientId": 4,
    "PatientName": "Tharun",
    "Age": 23,
    "Department": "Ortho",
    "Address": "Thorapadi,vellore",
    "Email": "tharun@gmail.com",
    "Bloodgrp": "B+ve",
    "Phone": 9360123456,
    "DateofAppointment": ISODate("2021-12-17T00:00:00Z")

{
    "_id": ObjectId("61a8610a90cafa9a1058ec1b"),
    "PatientId": 5,
    "PatientId": 5,
    "PatientName": "Sheema",
    "Age": 23,
    "Department": "Physio",
    "Address": "Sathuvachari,vellore",
    "Email": "sheema@gmail.com",
    "Bloodgrp": "AB-ve",
    "Phone": 9450123456,
    "DateofAppointment": ISODate("2021-12-18T00:00:00Z")

>
```

Update:

> db.patientdb.find({PatientName: "Sheema"}).pretty()

```
db.patientdb.find((PatientName:"Sheema")).pretty()
{
    "_id" : ObjectId("61a8610a90cafa9a1058ec1b"),
    "PatientId" : 5,
    "PatientName" : "Sheema",
    "Age" : 23,
    "Department" : "Physio",
    "Address" : "Sathuvachari,vellore",
    "Email" : "sheema@gmail.com",
    "Bloodgrp" : "AB-ve",
    "Phone" : 9450123456,
    "DateofAppointment" : ISODate("2021-12-18T00:00:00Z")
}
```

→ Address is getting updated here.

```
> db.patientdb.update(
... { PatientName:"Sheema" },
... {
... $set: {
... Address: "Velapadi, vellore"
... }
... }
```

> db.patientdb.find({PatientName: "Sheema"}).pretty()

```
db.patientdb.find<{PatientName:"Sheema"}).pretty()
{
    "_id" : ObjectId("61a8610a90cafa9a1058ec1b"),
    "PatientId" : 5,
    "PatientName" : "Sheema",
    "Age" : 23,
    "Department" : "Physio",
    "Address" : "Velapadi,vellore",
    "Email" : "sheema@gmail.com",
    "Bloodgrp" : "AB-ve",
    "Phone" : 9450123456,
    "DateofAppointment" : ISODate("2021-12-18T00:00:00Z")
}
</pre>
```

Remove:

> db.patientdb.find({Age:19}).pretty()

```
b db.patientdb.find((Age:19)).pretty()
{
    "_id" : ObjectId("61a860d390cafa9a1058ec17"),
    "PatientId" : 1,
    "PatientName" : "kowshik",
    "Age" : 19,
    "Department" : "Cardiology",
    "Mdress" : "Katpadi,vellore",
    "Email" : "kowshikEgmail.com",
    "Bloodgrp" : "0+ve",
    "Phone" : 9360745079,
    "DateofAppointment" : ISODate("2021-11-11T00:00:002")
}
{
    "_id" : ObjectId("61a860e390cafa9a1058ec18"),
    "PatientId" : 2,
    "PatientName" : "Sridhar",
    "Age" : 19,
    "Department" : "Ortho",
    "Address" : "Thottapalayam,vellore",
    "Email" : "sridhar@gmail.com",
    "Bloodgrp" : "4+ve",
    "Phone" : 9360745126,
    "DateofAppointment" : ISODate("2021-12-15T00:00:00Z")
}
```

```
> db.patientdb.remove(
... { Age: 19 }
... )
WriteResult({ "nRemoved" : 2 })
> db.patientdb.find({Age:19}).pretty()
```

> db.patientdb.find().pretty()

 \rightarrow Patients with Age = 19, got removed from the database.

Delete:

> db.patientdatabase.find().pretty()

```
db.patientdb.find().pretty()
{
    "_id" : ObjectId("61a860ff90cafa9a1058ec1a"),
    "PatientId" : 4,
    "PatientName" : "Tharun",
    "Age" : 23,
    "Department" : "Ortho",
    "Address" : "Thorapadi,vellore",
    "Email" : "tharun@gmail.com",
    "Bloodgrp" : "B+ve",
    "Phone" : 9360123456,
    "DateofAppointment" : ISODate("2021-12-17T00:00:002")
}

{
    "_id" : ObjectId("61a8610a90cafa9a1058ec1b"),
    "PatientId" : 5,
    "PatientName" : "Sheema",
    "Age" : 23,
    "Department" : "Physio",
    "Address" : "Uelapadi,vellore",
    "Email" : "sheema@gmail.com",
    "Bloodgrp" : "4B-ve",
    "Phone" : 9450123456,
    "DateofAppointment" : ISODate("2021-12-18T00:00:00Z")
}
```

→ Patient named "Nishanth" got deleted from the database.

2.) Create EMP DB with necessary fields and perform CURD operation.

EMPLOYEE DATABASE:

>mongod.exe

```
Microsoft Windows [Version 6.3.9600]
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C:\Users\S.SARATH\mongod.exe
2021-11-16T10:45:34.276+0530 I CONTROL [initandlisten] MongoDB starting: pid=3
408 port-27017 dbpath=C:\data\db\64-bit host=SRUTHI
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] targetMinOS: Windows 7/W
indows Server 2008 R2
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] db version v3.6.23
2021-11-16T10:45:34.277+0530 I CONTROL [initandlisten] git version: d352e6a4764
659e0d0350ce77279de3c1f243e5c
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] openSSL version: OpenSSL
1.0.2s-fips 28 May 2019
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] allocator: tcmalloc
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] modules: none
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] build environment:
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] distarch: x86_64
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] target_arch: x86_64
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] target_arch: x86_64
2021-11-16T10:45:34.278+0530 I CONTROL [initandlisten] options: {}
2021-11-16T10:45:34.278+0530 I STORROE [initandlisten] options: {}
2021-11-16T10:45:34.278+053
```

>mongo.exe

>show dbs;

>use emloyeedb;

>db

>db.createCollection.emp;

>show collections;

Database Name: employeedb

Collection Name: employeedb.emp

Inserting 10 records in DB:

>db.employeedb.emp.insert({emp_id:1232,emp_name:"laya",age:23,dep="sales",cont act:3443224343,mail:<u>laya@gmail.com</u>,sal:45000,year_of_joing:2013});

>db.employeedb.emp.insert({emp_id:1242,emp_name:"vidya",age:43,dep="sales",contact:353543524343,mail:vidya123@gmail.com_,sal:68000,year_of_joing:2010});

.

>db.employeedb.emp.insert({emp_id:1232,emp_name:"gops",age:48,dep="marketing",contact:6566767673,mail:gops19@gmail.com_,sal:23000,year_of_joing:2020});

Displaying records using find() command:

>db.employeedb.emp.find();

Displaying records using find() command along with pretty():

>db.employeedb.emp.find().pretty();

```
Command Prompt - mongo.exe
"contact" : 355776433,
"mail" : "niveee@gmail.com",
"sal" : 46000,
"year_of_joing" : 1999
"_id" : ObjectId("61a068ebdcce735276c75542"),
"emp_id" : 1962,
"emp_name" : "sarathu",
"age" : 65,
"dep" : "production",
"contact" : 35588833,
"mail" : "sarath@gmail.com",
"sal" : 89000,
"year_of_joing" : 1997
"_id" : ObjectId("61a06921dcce735276c75543"),
"emp_id" : 1882,
"emp_name" : "sruthi",
"age" : 35,
"dep" : "sales",
"contact" : 366776767673,
"mail" : "sruthih@gmail.com",
"sal" : 46000,
"year_of_joing" : 2017
"_id" : ObjectId("61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : "HR",
"contact" : 36667673,
"mail" : "nithu240gmail.com",
"sal" : 70000,
"year_of_joing" : 2012
"_id" : ObjectId("61a069f5dcce735276c75545"),
"emp_id" : 1862,
"emp_name" : "sheemu",
"age" : 42,
"dep" : "production",
"contact" : 65465667673,
"mail" : "sheemu4@gmail.com",
"sal" : 76000,
"year_of_joing" : 1999
"_id" : ObjectId("61a06a72dcce735276c75546"),
"emp_id" : 1862,
"emp_name" : "gops",
"age" : 48,
"dep" : "marketing",
"contact" : 65667673,
"mail" : "gops19@gmail.com",
"sal" : 23000,
"year_of_joing" : 2020
```

Details of employee joined after 2000:

>db.employeedb.emp.find({year_of_joing:({\$gt:2000}}).pretty();

```
db.employeedb.emp.find((year_of_joing:($gt:2000))).pretty();
                      "_id" : ObjectId("61a066bbdcce735276c7553d"),
"emp_id" : 1232,
"emp_name" : "laya",
"age" : 23,
"dep" : "sales",
"contact" : 3443224343,
"mail" : "laya@gmail.com",
"sal" : 45000,
"year_of_joing" : 2013
                      "_id" : ObjectId("61a067addcce735276c7553e"),
"emp_id" : 1242,
"emp_name" : "vidya",
"age" : 43,
"dep" : "production",
"contact" : 343543524343,
"mail" : "vidya123@gmail.com",
"sal" : 68000,
"year_of_joing" : 2010
                      "_id" : ObjectId("61a06810dcce735276c7553f"),
"emp_id" : 1342,
"emp_name" : "daya",
"age" : 53,
"dep" : "marketing",
"contact" : 3333524343,
"mail" : "daya3@gmail.com",
"sal" : 56000,
"year_of_joing" : 2015
                      "_id" : ObjectId("61a06850dcce735276c75540"),
"emp_id" : 1332,
"emp_name" : "dada",
"age" : 57,
"dep" : "finance",
"contact" : 352444343433,
"mail" : "dada430gmail.com",
"sal" : 23000,
"year_of_joing" : 2001
                      "_id" : ObjectId("61a06921dcce735276c75543"),
"emp_id" : 1882,
"emp_name" : "sruthi",
"age" : 35,
"dep" : "sales",
"contact" : 366776767673,
"mail" : "sruthih@gmail.com",
"sal" : 46000,
"year_of_joing" : 2017
                      "_id" : ObjectId("61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : "HR",
"contact" : 36667673,
"mail" : "nithu240gmail.com",
"sal" : 70000,
"year_of_joing" : 2012
                      "_id" : ObjectId("61a06a72dcce735276c75546"),
"emp_id" : 1862,
"emp_name" : "gops",
"age" : 48,
"dep" : "marketing",
"contact" : 65667673,
"mail" : "gops190gmail.com",
"sal" : 23000,
"year_of_joing" : 2020
```

Details of employee in production team:

>db.employeedb.emp.find({dep:"production"}).pretty();

```
db.employeedb.emp.find(<dep:"production")).pretty();

   "_id" : ObjectId("61a067addcce735276c7553e"),
   "emp_id" : 1242,
   "emp_name" : "vidya",
   "age" : 43,
   "dep" : "production",
   "contact" : 343543524343,
   "mail" : "vidya123@gmail.com",
   "sal" : 68000,
   "year_of_joing" : 2010

{
   "_id" : ObjectId("61a068ebdcce735276c75542"),
   "emp_name" : "sarathu",
   "age : 65,
   "dep" : "production",
   "contact" : 35588833,
   "mail" : "sarath@gmail.com",
   "sal" : 89000,
   "year_of_joing" : 1997

}

{
   "_id" : ObjectId("61a069f5dcce735276c75545"),
   "emp_id" : 1862,
   "emp_id" : 1862,
   "emp_id" : 1862,
   "emp_id" : "sheemu",
   "age" : 42,
   "dep" : "production",
   "contact" : 65465667673,
   "mail" : "sheemu4@gmail.com",
   "sal" : 76000,
   "year_of_joing" : 1999
}
</pre>
```

Details of employee with specific empid:

>db.employeedb.emp.find({emp_id:1242}).pretty();

```
db.employeedb.emp.find({emp_id:1242}).pretty();

"_id" : ObjectId("61a067addcce735276c7553e"),
    "emp_id" : 1242,
    "emp_name" : "vidya",
    "age" : 43,
    "dep" : "production",
    "contact" : 343543524343,
    "mail" : "vidya123@gmail.com",
    "sal" : 68000,
    "year_of_joing" : 2010
```

Details of employee salary >50000:

>db.employeedb.emp.find({sal:({\$gt:50000}}).pretty();

```
db.employeedb.emp.find({sal:($gt:50000}}).pretty();
                    "_id" : ObjectId("61a067addcce735276c7553e"),
"emp_id" : 1242,
"emp_name" : "vidya",
"age" : 43,
"dep" : "production",
"contact" : 343543524343,
"mail" : "vidya123@gmail.com",
"sal" : 68000,
"year_of_joing" : 2010
                     "_id" : ObjectId("61a06810dcce735276c7553f"),
"emp_id" : 1342,
                     "emp_id": 1342,
"emp_name": "daya",
"age": 53,
"dep": "marketing",
"contact": 3333524343,
"mail": "daya3@gmail.com",
"sal": 56000,
"year_of_joing": 2015
                    "_id" : ObjectId("61a068ebdcce735276c75542"),
"emp_id" : 1962,
"emp_name" : "sarathu",
"age" : 65,
"dep" : "production",
"contact" : 35588833,
"mail" : "sarath@gmail.com",
"sal" : 89000,
"year_of_joing" : 1997
                    "_id" : ObjectId("61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : "HR",
"contact" : 36667673,
"mail" : "nithu240gmail.com",
"sal" : 70000,
"year_of_joing" : 2012
                    "_id" : ObjectId("61a069f5dcce735276c75545"),
"emp_id" : 1862,
"emp_name" : "sheemu",
"age" : 42,
"dep" : "production",
"contact" : 65465667673,
"mail" : "sheemu40gmail.com",
"sal" : 76000,
"year_of_joing" : 1999
```

Employee details in sorted order:

>db.employeedb.emp.find().sort({KEY:1}).pretty();

```
Command Prompt - mongo.exe
CH.
      db.employeedb.emp.find().sort((KEY:1)).pretty();
                              "_id" : ObjectId("61a066bbdcce735276c7553d"),
"emp_id" : 1232,
"emp_name" : "laya",
"age" : 23,
"dep" : "sales",
"contact" : 3443224343,
"mail" : "laya@gmail.com",
"sal" : 45000,
"year_of_joing" : 2013
                              "_id" : ObjectId<"61a067addcce735276c7553e"),
"emp_id" : 1242,
"emp_name" : "vidya",
"age" : 43,
"dep" : "production",
"contact" : 343543524343,
"mail" : "vidya123@gmail.com",
"sal" : 68000,
"year_of_joing" : 2010
                              "_id" : ObjectId<"61a06810dcce735276c7553f">,
"emp_id" : 1342,
"emp_name" : "daya",
"age" : 53,
"dep" : "marketing",
"contact" : 3333524343,
"mail" : "daya3@gmail.com",
"sal" : 56000,
"year_of_joing" : 2015
                              "_id" : ObjectId("61a06850dcce735276c75540"),
"emp_id" : 1332,
"emp_name" : "dada",
"age" : 57,
"dep" : "finance",
"contact" : 352444343433,
"mail" : "dada43@gmail.com",
"sal" : 23000,
"year_of_joing" : 2001
                              "_id" : ObjectId<"61a06885dcce735276c75541"),
"emp_id" : 1762,
"emp_name" : "nive",
"age" : 35,
"dep" : "HR",
"contact" : 355776433,
"mail" : "niveee@gmail.com",
"sal" : 46000,
"year_of_joing" : 1999
                              "_id" : ObjectId("61a068ebdcce735276c75542"),
"emp_id" : 1962,
"emp_name" : "sarathu",
"age" : 65,
"dep" : "production",
"contact" : 35588833,
"mail" : "sarath@gmail.com",
"sal" : 89000,
"year_of_joing" : 1997
                              "_id" : ObjectId("61a06921dcce735276c75543"),
"emp_id" : 1882,
"emp_name" : "sruthi",
"age" : 35,
"dep" : "sales",
"contact" : 366776767673,
"mail" : "sruthih@gmail.com",
"sal" : 46000,
"year_of_joing" : 2017
                              "_id" : ObjectId("61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : "HR",
"contact" : 36667673,
"mail" : "nithu240gmail.com",
"sal" : 70000,
"year_of_joing" : 2012
                              "_id" : ObjectId<"61a069f5dcce735276c75545">,
"emp_id" : 1862,
"emp_name" : "sheemu",
"age" : 42,
"dep" : "production",
"contact" : 65465667673,
"mail" : "sheemu40gmail.com",
"sal" : 76000,
"year_of_joing" : 1999
                              "_id": ObjectId("61a06a72dcce735276c75546"),
"emp_id": 1862,
"emp_name": "gops",
"age": 48,
"dep": "marketing",
"contact": 65667673,
"mail": "gops19@gmail.com",
"sal": 23000,
"year_of_joing": 2020
```

Sorting in Descending order:

>db.employeedb.emp.find().sort({KEY:-1}).pretty();

```
Select Command Prompt - mongo.exe
db.employeedb.emp.find().sort((KEY:-1)).pretty();
                      "_id" : ObjectId<"61a066bbdcce735276c7553d">,
"emp_id" : 1232,
"emp_name" : "laya",
"age" : 23,
"dep" : "sales",
"contact" : 3443224343,
"mail" : "laya@gmail.com",
"sal" : 45000,
"year_of_joing" : 2013
                      "_id" : ObjectId<"61a067addcce735276c7553e">,
"emp_id" : 1242,
"emp_name" : "vidya",
"age" : 43,
"dep" : "production",
"contact" : 343543524343,
"mail" : "vidya123@gmail.com",
"sal" : 68000,
"year_of_joing" : 2010
                      "_id" : ObjectId<"61a06810dcce735276c7553f">,
"emp_id" : 1342,
"emp_name" : "daya",
"age" : 53,
"dep" : "marketing",
"contact" : 333524343,
"mail" : "daya3@gmail.com",
"sal" : 56000,
"year_of_joing" : 2015
                      "_id" : ObjectId<"61a06850dcce735276c75540">,
"emp_id" : 1332,
"emp_name" : "dada",
"age" : 57,
"dep" : "finance",
"contact" : 352444343433,
"mail" : "dada43@gmail.com",
"sal" : 23000,
"year_of_joing" : 2001
                      "_id" : ObjectId<"61a06885dcce735276c75541">,
"emp_id" : 1762,
"emp_name" : "nive",
"age" : 35,
"dep" : "HR",
"contact" : 355776433,
"mail" : "niveee@gmail.com",
"sal" : 46000,
"year_of_joing" : 1999
                       "_id" : ObjectId<"61a068ebdcce735276c75542"),
"emp_id" : 1962,
"emp_name" : "sarathu",
                       "_id" : ObjectId("61a068ebdcce735276c75542"),
"emp_id" : 1962,
"emp_name" : "sarathu",
"age" : 65,
"dep" : "production",
"contact" : 3558833,
"mail" : "sarath@gmail.com",
"sal" : 8900,
"year_of_joing" : 1997
                       "_id" : ObjectId<"61a06921dcce735276c75543"),
"emp_id" : 1882,
"emp_name" : "sruthi",
"age" : 35,
"dep" : "sales",
"contact" : 366,76767673,
"mail" : "sruthih@gmail.com",
"sal" : 4600,
"year_of_joing" : 2017
                      "_id" : ObjectId<"61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : "HR";
"contact" : 36667673,
"mail" : "nithu24@gmail.com",
"sal" : 7000,
"year_of_joing" : 2012
                       "_id" : ObjectId<"61a069f5dcce735276c75545"),
"emp_id" : 1862,
"emp_name" : "sheemu",
"age" : 42,
"dep" : "production",
"contact" : 65465667673,
"mail" : "sheemu4@gmail.com",
"sal" : 76000,
"year_of_joing" : 1999
                       "_id" : ObjectId("61a06a72dcce735276c75546"),
"emp_id" : 1862,
"emp_name" : "gops",
"age" : 48,
"dep" : "marketing",
"contact" : 65667673,
"mail" : "gops19@gmail.com",
"sal" : 2300,
"year_of_joing" : 2020
```

Employee details in sorted order based on salary:

>db.employeedb.emp.find().sort({sal:-1}).pretty();

```
db.employeedb.emp.find().sort((sal:-1)).pretty();
                       "_id" : ObjectId<"61a068ebdcce735276c75542"),
"emp_id" : 1962,
"emp_name" : "sarathu",
"age" : 65,
"dep" : "production",
"contact" : 35588833,
"mail" : "sarath@gmail.com",
"sal" : 89000,
"year_of_joing" : 1997
                        "_id" : ObjectId("61a069f5dcce735276c75545"),
"emp_id" : 1862,
"emp_name" : "sheemu",
"age" : 42,
"dep" : 'Production",
"contact" : 65465667673,
"mail" : "sheemu4@gmail.com",
"sal" : 76000,
"year_of_joing" : 1999
                        "_id" : ObjectId<"61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : 21,
"contact" : 36667673,
"mail" : "nithu24@gmail.com",
"sal" : 70000,
"year_of_joing" : 2012
                       "_id" : ObjectId("61a067addcce735276c7553e"),
"emp_id" : 1242,
"emp_name" : "vidya",
"age" : 43,
"dep" : "production",
"contact" : 343543524343,
"mail" : "vidya123@gmail.com",
"sal" : 68000,
"year_of_joing" : 2010
                        "_id" : ObjectId<"61a06810dcce735276c7553f">,
"emp_id" : 1342,
"emp_inae" : "daya",
"age" : 53,
"dep" : Ymarketing",
"contact" : 3335524343,
"mail" : "daya3@gmail.com",
"sal" : 56000,
"year_of_joing" : 2015
                        "_id" : ObjectId<"61a06885dcce735276c75541">,
"emp_id" : 1762,
"emp_name" : "nive",
"age" : 35,
                       "_id" : ObjectId<"61a06885dcce735276c75541"),
"emp_id" : 1762,
"emp_name" : "nive",
"age" : 35,
"dep" : "HR",
"contact" : 355776433,
"mail" : "niveee@gmail.com",
"sal" : 46000,
"year_of_joing" : 1999
                       "_id" : ObjectId("61a06921dcce735276c75543"),
"emp_id" : 1882,
"emp_name" : "sruthi",
"age" : 35,
"dep" : "sales",
"contact" : 366776767673,
"mail" : "sruthih@gmail.com",
"sal" : 46000,
"year_of_joing" : 2017
                       "_id" : ObjectId("61a066bbdcce735276c7553d"),
"emp_id" : 1232,
"emp_name" : "laya",
"age" : 23,
"dep" : "sales",
"contact" : 3443224343,
"mail" : "laya@gmail.com",
"sal" : 45000,
"year_of_joing" : 2013
                       "_id" : ObjectId("61a06850dcce735276c75540"),
"emp_id" : 1332,
"emp_name" : "dada",
"age" : 57,
"dep" : "finance",
"contact" : 352444343433,
"mail" : "dada43@gmail.com",
"sal" : 23000,
"year_of_joing" : 2001
                       "_id" : ObjectId<"61a06a72dcce735276c75546">,
"emp_id" : 1862,
"emp_name" : "gops",
"age" : 48,
"dep" : "marketing",
"contact" : 65667673,
"mail" : "gops19@gmail.com",
"sal" : 23000,
"year_of_joing" : 2020
```

Delete employee details with specific id:

>db.employeedb.emp.remove({emp_id:1332});

>db.employeedb.emp.find().pretty();

```
Command Prompt - mongo.exe
db.employeedb.emp.remove<{emp_id:1332>>;
riteResult<{ "nRemoved" : 1 >>
db.employeedb.emp.find<<emp_id:1332>>.pretty<>;
db.employeedb.emp.find<>.pretty<>;
                        "_id" : ObjectId("61a066bbdcce735276c7553d"),
"_emp_id" : 1232,
"emp_name" : "laya",
"age" : 23,
"dep" : "sales",
"contact" : 3443224343,
"mail" : "laya@gmail.com",
"sal" : 45000,
"year_of_joing" : 2013
                         "_id" : ObjectId<"61a067addcce735276c7553e">,
"emp_id" : 1242,
"emp_name" : "vidya",
"age" : 43,
"dep" : 'Production",
"contact" : 343543524343,
"mail" : "vidya123@gmail.com",
"sal" : 68000,
"year_of_joing" : 2010
                        "_id" : ObjectId<"61a06810dcce735276c7553f">,
"emp_id" : 1342,
"emp_name" : "daya",
"age" : 53,
"dep" : "marketing",
"contact" : 3335524343,
"mail" : "daya3@gmail.com",
"sal" : 56000,
"year_of_joing" : 2015
                        "_id" : ObjectId<"61a06885dcce735276c75541"),
"emp_id" : 1762,
"emp_name" : "nive",
"age" : 35,
"dep" : 35,
"contact" : 355776433,
"mail" : "nivece@gmail.com",
"sal" : 46000,
"year_of_joing" : 1999
                        "_id" : ObjectId<"61a068ebdcce735276c75542"),
"emp_id" : 1962,
emp_name" : "sarathu",
"age" : 65,
"dep" : "production",
"contact" : 35588833,
"mail" : "sarath@gmail.com",
"sal" : 89000,
"year_of_joing" : 1997
                         "_id" : ObjectId("61a06921dcce735276c75543")
                        "_id" : ObjectId<"61a06921dcce735276c75543">,
"emp_id" : 1882,
"emp_name" : "sruthi",
"age" : 35,
"dep" : "sales",
"contact" : 366776767673,
"mail" : "sruthih@gmail.com",
"sal" : 46000,
"year_of_joing" : 2017
                        "_id" : ObjectId("61a06995dcce735276c75544"),
"emp_id" : 1862,
"emp_name" : "nithu",
"age" : 25,
"dep" : "HR",
"contact" : 36667673,
"mail" : "nithu24@gmail.com",
"sal" : 70000,
"year_of_joing" : 2012
                        "_id" : ObjectId("61a069f5dcce735276c75545"),
"emp_id" : 1862,
"emp_name" : "sheemu",
"age" : 42,
"dep" : "production",
"contact" : 65465667673,
"mail" : "sheemu4@gmail.com",
"sal" : 76000,
"year_of_joing" : 1999
                        "_id" : ObjectId("61a06a72dcce735276c75546"),
"emp_id" : 1862,
"emp_name" : "gops",
"age" : 48,
"dep" : "marketing",
"contact" : 65667673,
"mail" : "gops19@gmail.com",
"sal" : 23000,
"year_of_joing" : 2020
```

3.) Create a Express js form to receive data (emp data) and update in to db.

App.js:

```
const { MongoClient } = require('mongodb');
// or as an es module:
// import { MongoClient } from 'mongodb'
// Connection URL
const url = 'mongodb://localhost:27017';
const client = new MongoClient(url);
// Database Name
const dbName = 'employees';
async function main() {
 // Use connect method to connect to the server
 await client.connect();
 console.log('Connected successfully to server');
 const db = client.db(dbName);
 const collection = db.collection('employee_details');
 const\ insertResult = await
collection.insertMany([{empid:101,empname:"zainab",dept:"development",doj:"2010-
06-
05T08:00:00.000",salary
:87000,age:30,num:932323326786,mail:"zainab@gmail.com"}, {
empid:102,empname:"
```

```
rajan",dept:"production",doj:"1998-09-16T08:00:00.000",salary
:59000,age:56,num:97899887786,mail:"raja@gmail.com" }, {
empid:103,empname:"anima",dept:"production",doj:"2001-06-
14T08:00:00.000", salary
:78000,age:87,num:9765496886,mail:"anima@gmail.com" },
{empid:104,empname:"nithu
ma",dept:"testing",doj:"2008-03-16T08:00:00.000",salary
:87000,age:24,num:97886896786,mail:"nithuma4@gmail.com"},
{empid:105,empname:"gops",dept:"production",doj:"2003-06-
10T08:00:00.000", salary
:67000,age:43,num:966756786,mail:"gops@gmail.com"},
{empid:106,empname:"payya",dept:"development",doj:"2006-07-
15T08:00:00.000",salary
:89000,age:37,num:97888778786,mail:"payya@gmail.com"},
{empid:107,empname:"rithikl",dept:"production",doj:"1995-06-
```

10T08:00:00.000", salary

```
:78000,age:35,num:9443346786,mail:"rithikl@gmail.com"},
{empid:108,empname:"hari",dept:"development",doj:"2010-06-
11T08:00:00.000",salary
:70000,age:27,num:97889876656,mail:"hariii@gmail.com"},
{empid:109,empname:"soundar",dept:"production",doj:"2014-06-
16T08:00:00.000",salary
:80000,age:33,num:97886221323,mail:"soundar@gmail.com"},
{empid:110,empname:"saii",dept:"development",doj:"1997-06-
10T08:00:00.000", salary
:35000,age:35,num:983373786,mail:"saiii@gmail.com"}]);
console.log('Inserted documents =>', insertResult)
 return 'done.';
main()
 .then(console.log)
 .catch(console.error)
 .finally(() => client.close());
```

```
"_id": ObjectId("61a86b533894fb59881744f3"),
"empid": 105,
"empname": "gops",
"dept": "production",
"doj": "2003-06-10T08:00:00.000",
"salary": 67000,
"age": 43,
"num": 966756786,
"mail": "gops@gmail.com"
 "_id" : ObjectId("61a86b533894fb59881744f4"),
"empid" : 106,
"_id" : ObjectId("61a86b533894fb59"
"empid" : 106,
"empid" : "payya",
"dept" : "development",
"doj" : "2006-07-15T08:00:00.000",
"salary" : 89000,
"age" : 37,
"num" : 97888778786,
"mail" : "payya@gmail.com"
"_id": ObjectId("61a86b533894fb59881744f5"),
"empid": 107,
"empname": "rithikl",
"dept": "production",
"doj": "1995-06-10T08:00:00.000",
"salary": 78000,
"age": 35,
"num": 9443346786,
"mail": "rithikl@gmail.com"
 "_id": ObjectId("61a86b533894fb59881744f6"),
"empid": 108,
"empname": "hari",
"dept": "development",
"doj": "2010-06-11T08:00:00.000",
"salary": 70000,
"age": 27,
"num": 97889876656,
"mail": "hariii@gmail.com"
 "_id": ObjectId("61a86b533894fb59881744f7"),
"empid": 109,
"empname": "soundar",
"dept": "production",
"doj": "2014-06-16T08:00:00.000",
"salary": 80000,
"age": 33,
"num": 97886221323,
"mail": "soundar@gmail.com"
```

4.) Create a node js program to illustrate get and Post method request.

"_id": ObjectId("61a86b533894fb59881744f8"),
"empid": 110,
"empname": "saii",
"dept": "development",
"doj": "1997-06-10T08:00:00.000",
"salary": 35000,
"age": 35,
"num": 983373786,
"mail": "saiii@gmail.com"

<u>GET METHOD:</u>

Server3.js:

```
var express = require('express');
var app = express();
```

```
app.use(express.static('public'));
app.get('/pat.html', function (req, res) {
 res.sendFile( __dirname + "/" + "pat.html" );
})
app.get('/process_get', function (req, res) {
 // Prepare output in JSON format
 response = {
   first_name:req.query.first_name,
   last_name:req.query.last_name,
   regNo:req.query.regNo,
   sex:req.query.sex,
   dob:req.query.dob,
   mail:req.query.mail,
   year:req.query.year,
   Course:req.query.Course,
   Work:req.query.Work
 };
 console.log(response);
 res.end(JSON.stringify(response));
})
var\ server = app.listen(8081, function())
  var\ host = server.address().address
```

```
var port = server.address().port
 console.log("Example app listening at http://%s:%s", host, port)
})
Pat.html:
<html>
<head>
     <title>
     HTML forms
     </title>
<style>
body {
     background-color:rgba(128, 128, 128, 0.459);
     font-size: 20px;
}
h1 {
     color: Black;
     font-size: 60px;
     text-align: center;
   {color: red;}
table,td{
     font-size: 20px;
     padding: 15px;
```

```
table{
    background-color: white;
    border: Opx solid black;
td{}
    /*border-spacing: 15px; */
    border: Opx solid black;
    font-size: 30px;
tr:hover {background-color: rgba(243, 135, 211, 0.521);}
tr:nth-child(even) {background-color: #93ccec;}
</style>
</head>
<body >
<h1>
     PAT-Registration Form</h1>
<center>
<form action = "http://127.0.0.1:8081/process_get" method = "GET">
     <tr>
               <b>First Name:</b><br>
```

```
name="first_name">
            <b>Last Name:</b><br>
                <input type="text" placeholder="Enter Last Name"</pre>
name="last_name">
            <tr>
            <b>Reg No.:</b><br>
                <input type="text" placeholder="Enter Reg No"</pre>
name="regNo">
            <tr>
            <b>Sex</b><br>
                <input type="radio" name="sex">Male<br>
                <input type="radio" name="sex">Female
```

<input type="text" placeholder="Enter First Name"</pre>

```
<b>Date Of Birth</b><br>
                 <input type="date" name"dob">
             <tr>
             <br/>
<br/>
<br/>
ddress:</b><br/>
                 <input type="email" placeholder="Enter Email"</pre>
name="mail"><br>
             <tr>
             <b>Year of Graduation</b><br>
                 <select name="year">
                 <option value="2021">2021</option>
                 <option value="2022" >2022</option>
                 <option value="2023" selected>2023</option>
                 <option value="2024">2024</option>
                 <option value="2025">2025</option>
                 </select>
```

<*tr>*

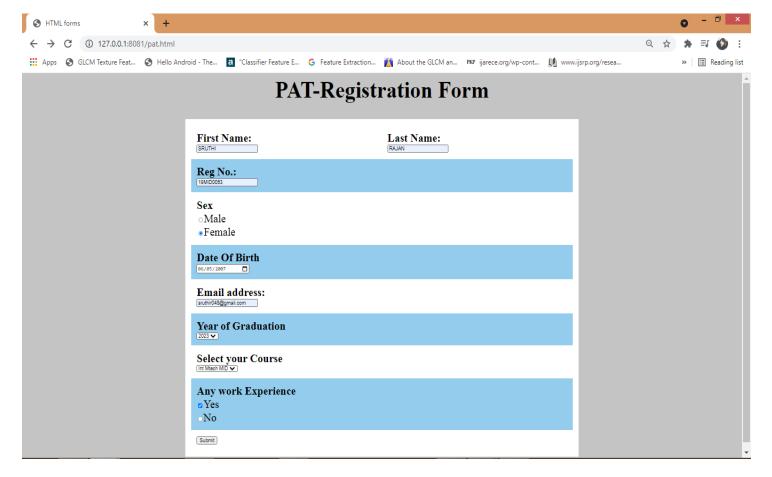
```
<tr>
 <b>Select your Course</b><br>
   <select name="Course">
      <option value="Btech CSE">Btech CSE</option>
      <option value="Int Mtech MID" selected>Int Mtech MID</option>
      <option value="Int Mtech SE">Int Mtech SE</option>
      <option value="Btech ECE">Btech ECE</option>
      <option value="Btech EEE">Btech EEE</option>
   </select>
 <tr>
 <br/>
<br/>b>Any work Experience</b><br/>
   <input type="checkbox" name="Work">Yes<br>
   <input type="checkbox" name="Work">No
 <tr>
 <input type="submit" value="Submit">
```

```
</center>
</form>
</body>
</html>
```

```
C:\Users\S.SARATH\Desktop\sem 5\adc_web_tech\EXPRESS\node server3.js
Example app listening at http://:::8081

{
first_name: 'SRUTHI',
last_name: 'RAJAN',
regNo: '19MID0053',
sex: 'on',
dob: undefined,
mail: 'sruthir048@gmail.com',
year: '2023',
Course: 'Int Mtech MID',
Work: 'on'
}
```

http://127.0.0.1:8081/pat.html



http://127.0.0.1:8081/process_get?first_name=sruthi&last_name=s®No=19MID0 053&sex=on&mail=sruthi.s2019a%40vitstudent.ac.in&year=2024&Course=Int+Mtec h+MID&Work=on



Post.js:

```
var express = require('express');
var bodyParser = require('body-parser');
// Create application/x-www-form-urlencoded parser
var urlencodedParser = bodyParser.urlencoded({ extended: false })
app.use(express.static('public'));
app.get('/pat.html', function (req, res) {
  res.sendFile( __dirname + "/" + "pat.html" );
})
app.post('/process_post', urlencodedParser, function (req, res) {
 // Prepare output in JSON format
  response = {
   first_name:req.body.first_name,
   last_name:req.body.last_name,
   regNo:req.body.regNo,
   sex:req.body.sex,
   dob:req.bodydob,
   mail:req.body.mail,
   year:req.body.year,
    Course:req.body.Course,
    Work:req.body.Work
  };
  console.log(response);
  res.end(JSON.stringify(response));
```

```
})
var\ server = app.listen(8081, function())
  var\ host = server.address().address
  var port = server.address().port
  console.log("Example app listening at http://%s:%s", host, port)
})
Pat.html:
< html >
<head>
     <title>
     HTML forms
     </title>
<style>
body {
     background-color:rgba(128, 128, 128, 0.459);
     font-size: 20px;
h1
     color: Black;
     font-size: 60px;
     text-align: center;
   {color: red;}
table,td{
     font-size: 20px;
```

```
padding: 15px;
table{
     background-color: white;
     border: Opx solid black;
     /*border-spacing: 15px; */
     border: Opx solid black;
     font-size: 30px;
tr:hover {background-color: rgba(243, 135, 211, 0.521);}
tr:nth-child(even) {background-color: #93ccec;}
</style>
</head>
< body >
\langle h1 \rangle
     PAT-Registration Form</h1>
<center>
```

<form action = "http://127.0.0.1:8081/process_post" method = "POST">

First Name:

<*tr>*

}

}

td{

```
<input type="text" placeholder="Enter First Name"</pre>
name="first_name">
            <b>Last Name:</b><br>
                <input type="text" placeholder="Enter Last Name"</pre>
name="last name">
            <tr>
            <b>Reg No.:</b><br>
                <input type="text" placeholder="Enter Reg No"</pre>
name="regNo">
            <tr>
            <b>Sex</b><br>
                <input type="radio" name="sex">Male<br>
                <input type="radio" name="sex">Female
            <tr>
            <b>Date Of Birth</b><br>
                <input type="date" name"dob">
```

```
<tr>
             <br/>
<br/>
<br/>
ddress:</b><br/>
                 <input type="email" placeholder="Enter Email"</pre>
name = "mail" > < br >
             <tr>
             <b>Year of Graduation</b><br>
                 <select name="year">
                 <option value="2021">2021</option>
                 <option value="2022" >2022</option>
                 <option value="2023" selected>2023</option>
                 <option value="2024">2024</option>
                 <option value="2025">2025</option>
                 </select>
             <tr>
          <b>Select your Course</b><br>
            <select name="Course">
              <option value="Btech CSE">Btech CSE</option>
```

```
<option value="Int Mtech MID" selected>Int Mtech MID</option>
             <option value="Int Mtech SE">Int Mtech SE</option>
             <option value="Btech ECE">Btech ECE</option>
             <option value="Btech EEE">Btech EEE</option>
           </select>
         <tr>
         <br/>
<br/>b>Any work Experience</b><br/>
           <input type="checkbox" name="Work">Yes<br>
           <input type="checkbox" name="Work">No
         <tr>
         <input type="submit" value="Submit">
         </center>
</form>
</body>
</html>
```

```
Microsoft Windows [Uersion 6.3.9600]
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C:\Users\S.SARATH\cd desktop

C:\Users\S.SARATH\Desktop\cd sem 5

C:\Users\S.SARATH\Desktop\sem 5\cd adc_web_tech

C:\Users\S.SARATH\Desktop\sem 5\adc_web_tech\cd express

C:\Users\S.SARATH\Desktop\sem 5\adc_web_tech\cd express

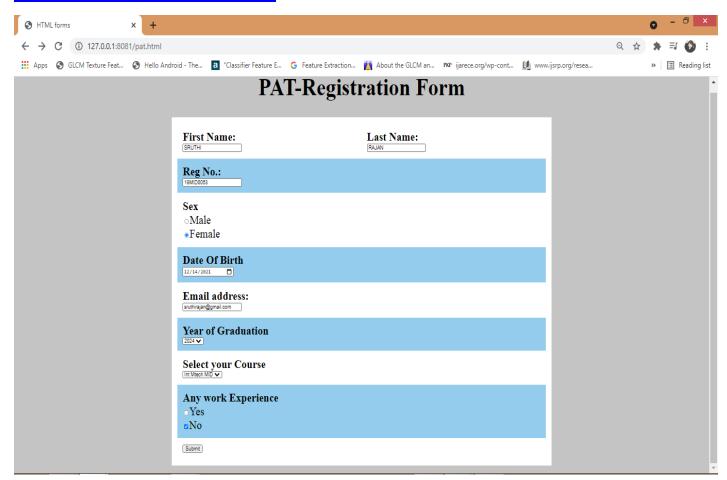
C:\Users\S.SARATH\Desktop\sem 5\adc_web_tech\cd express

C:\Users\S.SARATH\Desktop\sem 5\adc_web_tech\cxPRESS\node post.js

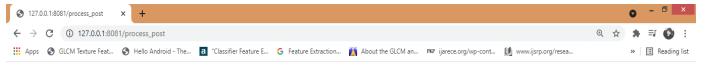
Example app listening at http://:::8081

{
    first_name: '$RUTHI ',
    last_name: 'RAJAN',
    regNo: '19NID0053',
    sex: 'on',
    dob: undefined,
    mail: 'sruthirajan@gmail.com',
    year: '2024',
    Course: 'Int Mtech MID',
    Work: 'on'
}
```

http://127.0.0.1:8081/pat.html



http://127.0.0.1:8081/process_post



{"first_name":"SRUTHI ","last_name":"RAJAN","regNo":"19MID0053","sex":"on","mail":"sruthirajan@gmail.com","year":"2024","Course":"Int Mtech MID","Work":"on"}