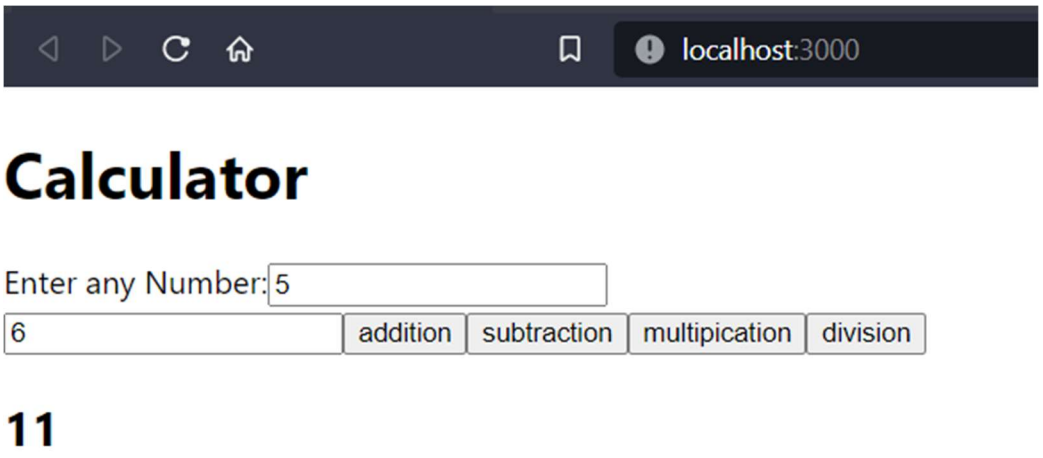
JAVASCRIPT CODE :

```
import React from "react";
class Cal extends React.Component
{
    constructor()
    {
        super();
        this.state={n:'',
        p:''}
    }

    updateN=(event)=>
    {
        this.setState({n:event.target.value});
        this.setState({p:event.target.value});
    }
    addi=(event)=>
    {
        event.preventDefault();
        let f=0;
        f=parseInt(this.state.n) + parseInt(this.state.p);
        // alert(f);
         document.getElementById("output").innerHTML="<h2>" + f + "</h2>";
    }
    sub=(event)=>
    {
        event.preventDefault();
        let f=0;
        f=parseInt(this.state.n) - parseInt(this.state.p);
        // alert(f);
         document.getElementById("output").innerHTML="<h2>" + f + "</h2>";
    }
    mul=(event)=>
    {
        event.preventDefault();
        let f=0;
        f=parseInt(this.state.n) * parseInt(this.state.p);
        // alert(f);
         document.getElementById("output").innerHTML="<h2>" + f + "</h2>";
    }
    div=(event)=>
    {
        event.preventDefault();
        let f=0;
        f=parseInt(this.state.n) / parseInt(this.state.p);
        // alert(f);
         document.getElementById("output").innerHTML="<h2>" + f + "</h2>";
    }
```

```
    render()
    {
        return(
            <React.Fragment>
                <h1>Calculator</h1>
                <form>
                    Enter any Number:
                    <input type="number" value={this.state.n} onChange={
(eve) => { this.setState({ n: eve.target.value }) } }/><br></br>
                    <input type="number" value={this.state.p} onChange={
(eve) => { this.setState({ p: eve.target.value }) } }/>
                    <button onClick={this.addi}>addition</button>
                    <button onClick={this.sub}>subtraction</button>
                    <button onClick={this.mul}>multipication</button>
                    <button onClick={this.div}>division</button>



                </form>
                <div id="output"></div>
            </React.Fragment>
        )
    }
}

export default Cal;
```

OUTPUT :



RESULT :

JAVASCRIPT CODE :

```
import React, { useState } from 'react';

function isPrime(num) {
  if (num < 2) {
    return false;
  }
  for (let i = 2; i <= Math.sqrt(num); i++) {
    if (num % i === 0) {
      return false;
    }
  }
  return true;
}

function App() {
  const [number, setNumber] = useState('');
  const [isPrimeResult, setIsPrimeResult] = useState(null);

  const handleSubmit = (event) => {
    event.preventDefault();
    const num = parseInt(number);
    setIsPrimeResult(isPrime(num));
  };

  return (
    <div>
      <h1>Check if a Number is Prime</h1>
      <form onSubmit={handleSubmit}>
        <label>
          Enter a number:
          <input
            type="number"
            value={number}
            onChange={(event) => setNumber(event.target.value)}
          />
        </label>
        <button type="submit">Check</button>
      </form>
      {isPrimeResult !== null && (
        <p>{isPrimeResult ? 'Prime' : 'Not Prime'}</p>
      )}
    </div>
  );
}
```

```
export default App;
```

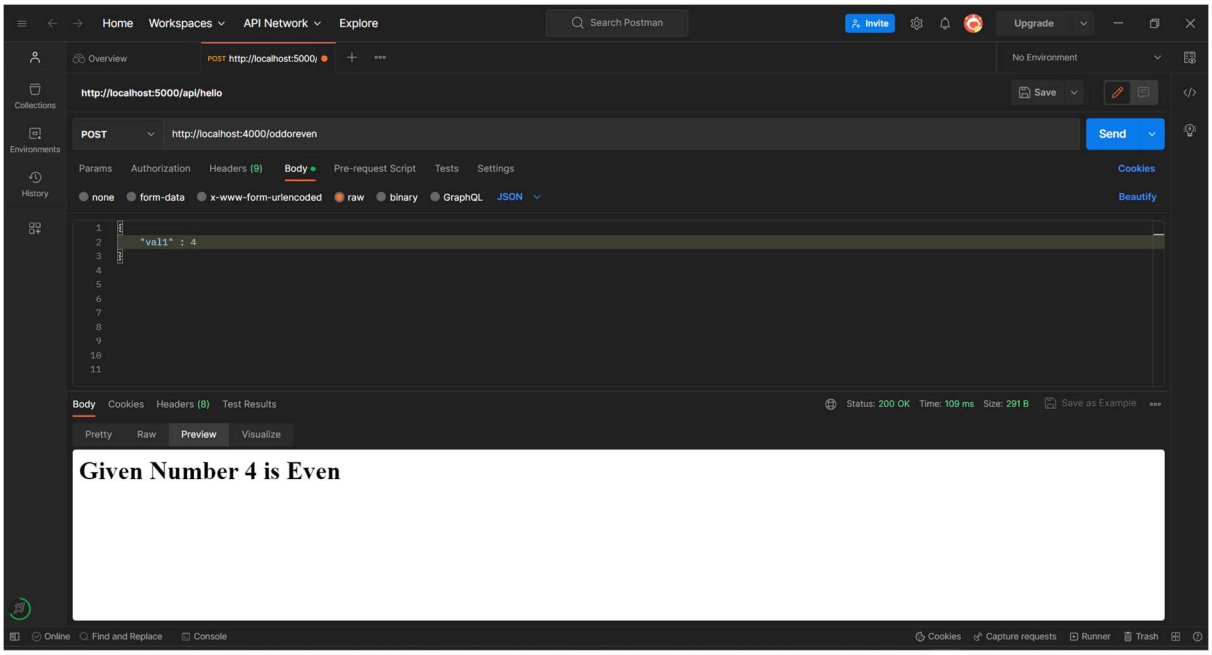
OUTPUT :

RESULT :

JAVASCRIPT CODE :

```
var express = require('express');
var bodyparser = require('body-parser');
var cors = require('cors');

var obj = express();
obj.use(cors());
obj.use(express.json());
obj.use(bodyparser.urlencoded({
    extended:true
}));

obj.post("/oddoreven",function(req,res)
{
    var n = req.body.val1;
    var op="";
    if(n%2===0)
    {
        op="Even";
    }
    else
    {
        op="Odd";
    }
    res.send("<h1>Given Number " + n + " is " + op + "</h1>");
})

obj.listen(4000,function()
{
    console.log("Server started at port no. 4000");
});
```

OUTPUT :

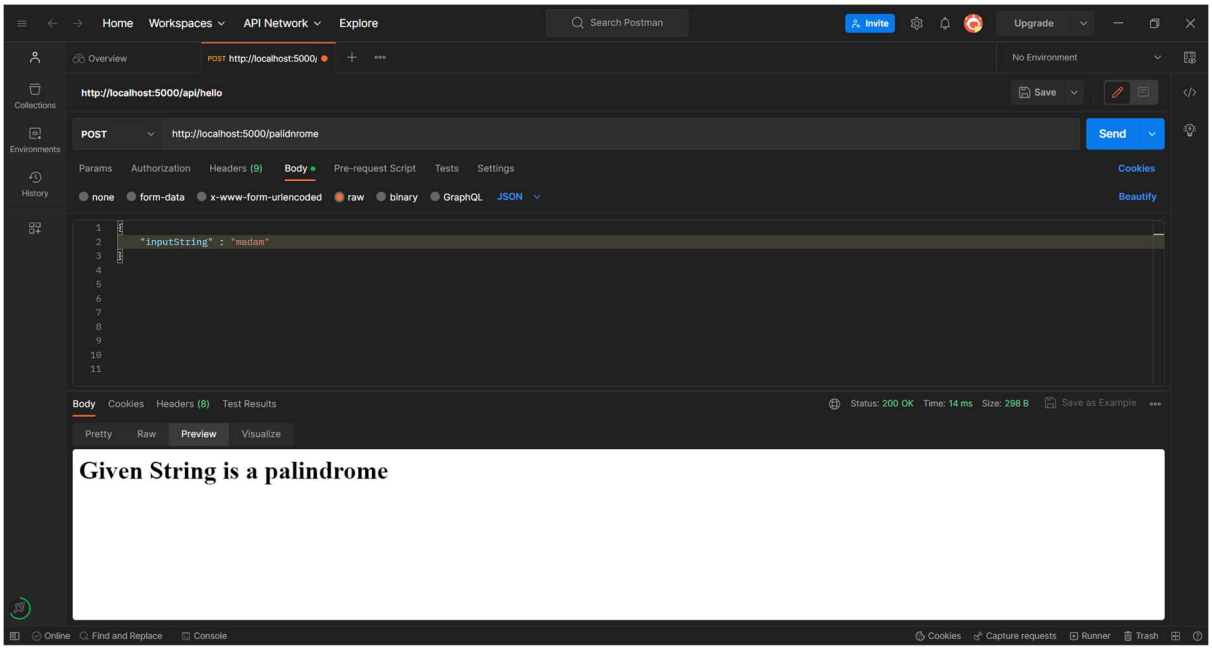


RESULT :

JAVASCRIPT CODE :

```
const  express=require('express');
const bodyParser=require('body-parser')

const cors=require('cors')

const app=express();
app.use(cors());

app.use(express.json())
app.use(bodyParser.urlencoded({
       extended:true
}))

app.post('/palidnrome',function(req,res){

        var inputString=req.body.inputString;


        let newString = "";
    for (let i = inputString.length - 1; i >= 0; i--) {
        newString += inputString[i];
    }
        console.log(newString)

        var message=""

        newString===inputString?message="Given String is a
palindrome":message="Given String is not a palindrome"


        res.send("<h1> "+message+"</h1>")


})
app.listen(5000,function(){
       console.log("Node Server is running on port 5000")
})
```

OUTPUT :



RESULT :

HTML CODE :

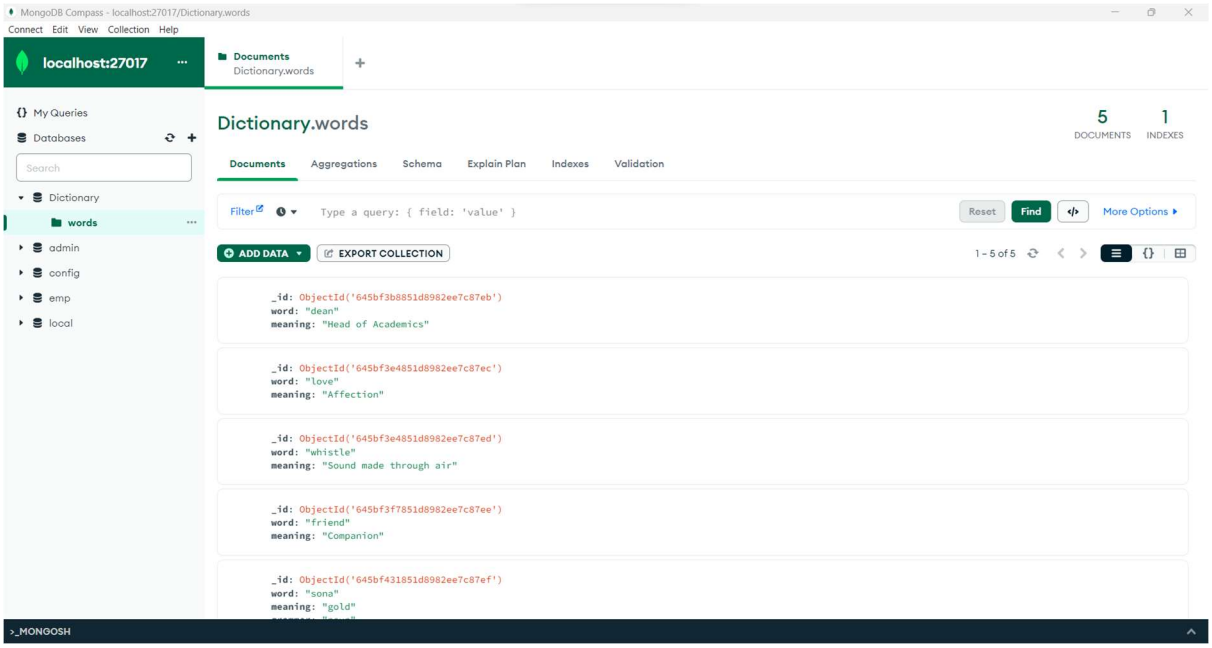
```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head>
    <meta charset="utf-8" />
    <title></title>
</head>
<body>
    <form action="/dictsearch" method="post">
        Enter word<input name="word" type="text" /> <br />
              <input type="submit" />
    </form>
</body>
</html>
```

JAVASCRIPT CODE :

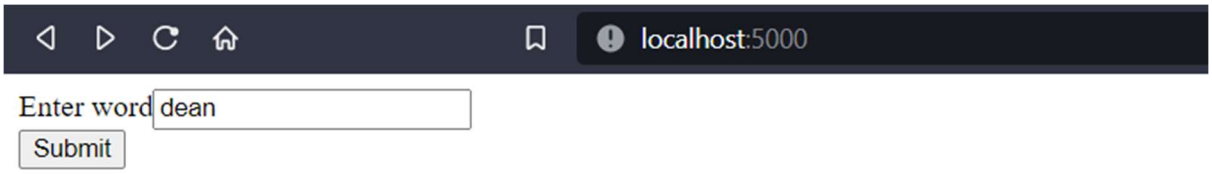
```
const express=require('express')
const bodyParser=require('body-parser');
const app=express();
const cors=require('cors')
app.use(cors());
app.use(express.json())
app.use(bodyParser.urlencoded({
extended:true
}))
app.get('/', function (req, res) {
      res.sendFile('dict.html',{ root: '.' });
  });

app.post("/dictsearch",function(req,res){
    let word=req.body.word;
    console.log("Entered Word "+word)
// Calling the required MongoDB module.
const MongoClient = require("mongodb").MongoClient;

// Server path
const url = 'mongodb://0.0.0.0:27017/';

console.log(url)
MongoClient.connect(url)
.then(
   function(db)
```

```
    {

        var dbo=db.db('Dictionary')

        var query={word:word}
        dbo.collection("words").find(query).toArray()
        .then(function(result){

           res.send("<h1> Meaning of the word "+word+" is
"+result[0].meaning+"</h1>");

        })
        .catch(function(err){
              console.log(err)
        })

        })
.catch(function(err){
        console.log(err)
})
})
    app.listen(5000,function(){
    console.log("Server is running on port number 5000")
    })
```

DATA IN MONGO DB :



OUTPUT :



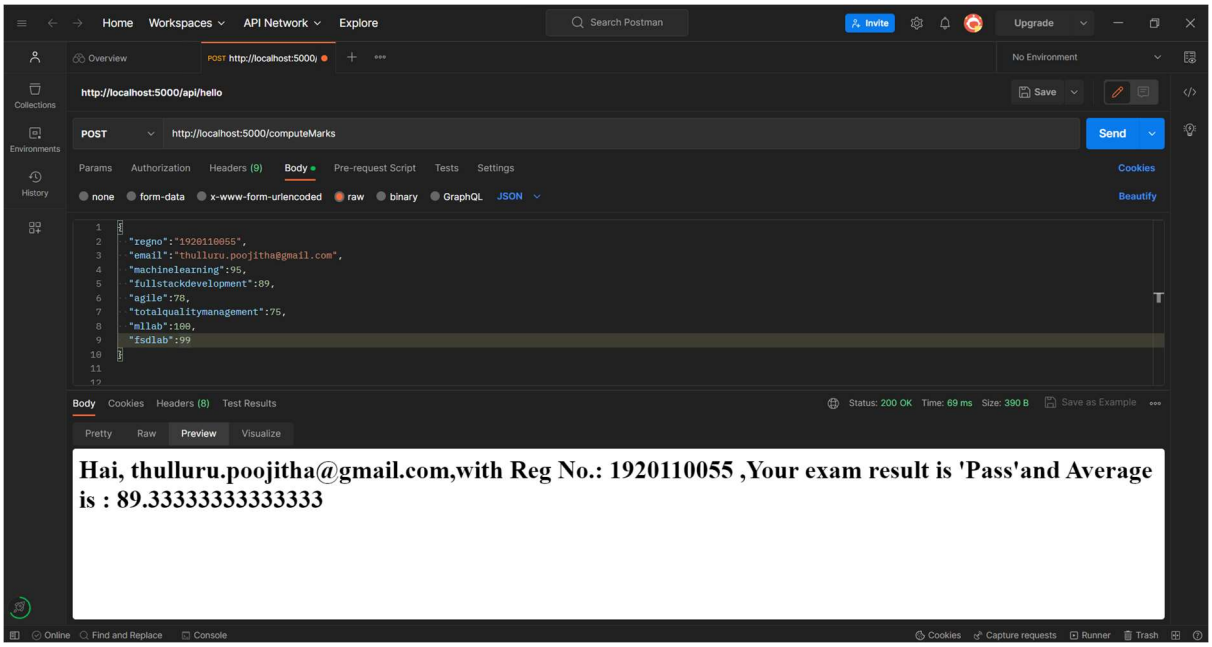
RESULT :

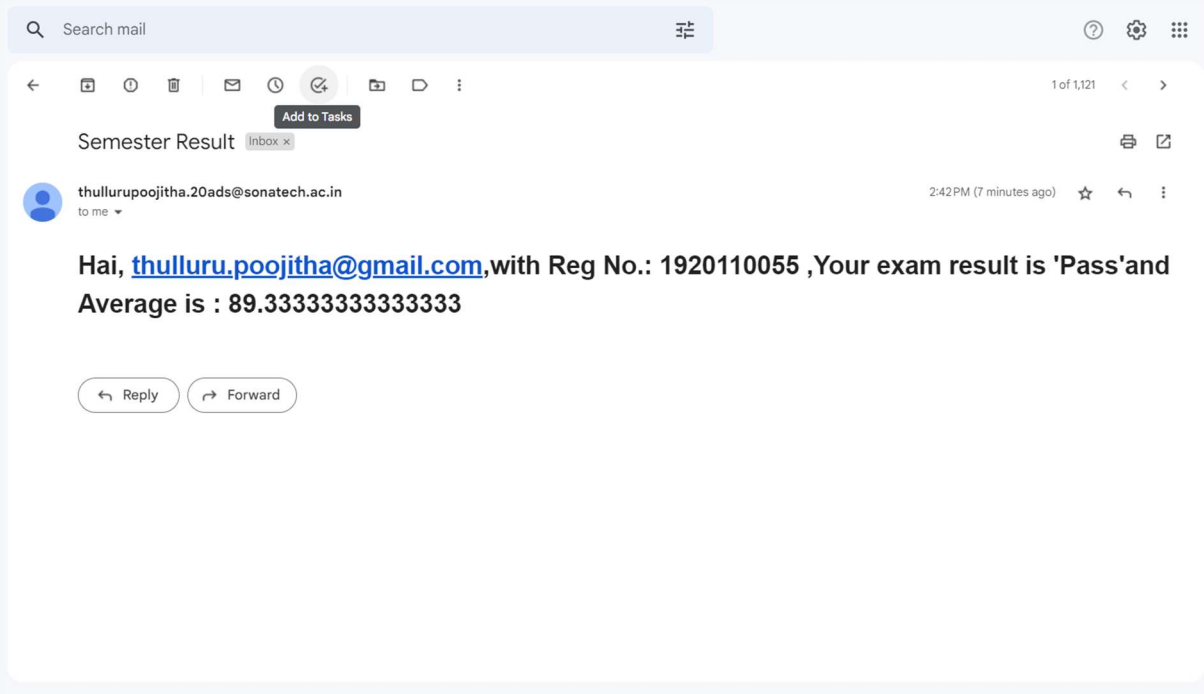
JAVASCRIPT CODE :

```
const express=require('express')
const bodyParser=require('body-parser');
const nodemailer=require('nodemailer');
const app=express();
const cors=require('cors')
app.use(cors());
app.use(express.json())
app.use(bodyParser.urlencoded({
    extended:true
}))

var transporter = nodemailer.createTransport({
    service: 'outlook365',
    auth: {
      user: 'thullurupoojitha.20ads@sonatech.ac.in',
      pass: 'xxxxxxxxxx'
    },
    tls : { rejectUnauthorized: false }
  });

app.post("/computeMarks",function(req,res){

    let regno=req.body.regno;
    let email=req.body.email;
    let machinelearning=req.body.machinelearning;
    let fullstackdevelopment=req.body.fullstackdevelopment;
    let agile=req.body.agile;
    let totalqualitymanagement=req.body.totalqualitymanagement;
    let mllab=req.body.mllab;
    let fsdlab=req.body.fsdlab;

    let
totalmarks=machinelearning+fullstackdevelopment+agile+totalqualitymanageme
nt+mllab+fsdlab;

    let result=(machinelearning>=50 && fullstackdevelopment>=50 &&
agile>=50 && totalqualitymanagement>=50 && mllab>=50 &&
fsdlab>=50)?"Pass":"Fail";

    let avg=totalmarks/6;

    let message="<h1> Hai, "+email+",with Reg No.: "+regno +" ,Your exam
result is "+"'"+result+"'"+"and Average is : "+avg+"</h1>"

    var mailOptions = {
```

```
        from: 'thullurupoojitha.20ads@sonatech.ac.in',
        to: 'thulluru.poojitha@gmail.com',
        subject: 'Semester Result',
        html: message
      }

      transporter.sendMail(mailOptions, function(error, info){
        if (error) {
          console.log(error);
        } else {
          console.log('Email sent: ' + info.response);
        }
      });

  res.send(message)

})
app.listen(5000,function(){
    console.log("Server is running on port number 5000")
})
```

OUTPUT :




Search mail
1 of 1,121
Add to Tasks
Semester Result
Inbox ×
thullurupoojitha.20ads@sonatech.ac.in
to me
2:42 PM (7 minutes ago)
Hai, thulluru.poojitha@gmail.com,with Reg No.: 1920110055 ,Your exam result is 'Pass'and Average is : 89.33333333333333
Reply
Forward

RESULT :

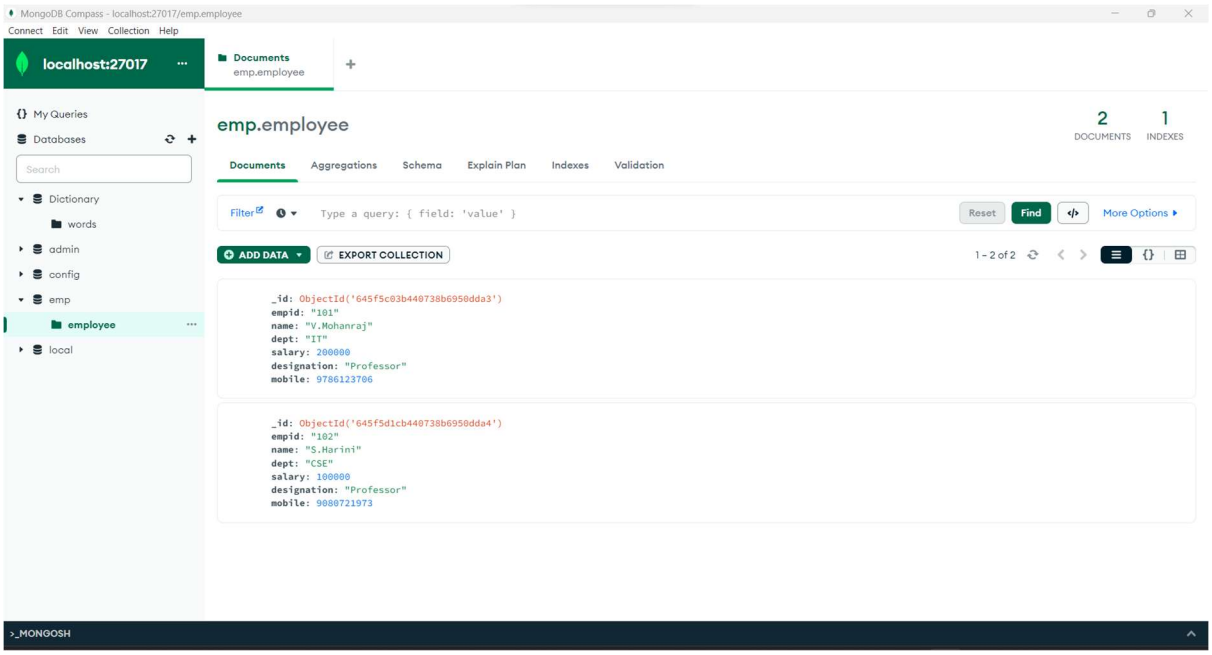
JAVASCRIPT CODE :

```
const express=require('express');
const bodyParser=require('body-parser');
const app=express();
const cors=require('cors')
app.use(cors());
app.use(express.json());
app.use(bodyParser.urlencoded({
    extended:true
}));

app.post("/addemployee",function(req,res){

    let empid=req.body.empid;
    let name=req.body.ename;
    let dept=req.body.dept;
    let salary=req.body.salary;
    let designation=req.body.designation;
    let mobile=req.body.mobile;

    var MongoClient = require('mongodb').MongoClient;
        var url = "mongodb://127.0.0.1:27017/";

        MongoClient.connect(url)
.then(
 function(db)
 {
  var dbo = db.db("emp");
  var myobj = { empid: empid, name:name,dept:dept,
salary:salary,designation:designation,mobile:mobile };

  console.log("test "+myobj.empid)
  dbo.collection("employee").insertOne(myobj)
    .then(function(){
       console.log("Record Inserted..")
       res.send("Insert Success..");
    })
    .catch(function(err){
          console.log(err)
    })

    })
.catch(function(err){
    console.log(err)
})
})
```

```
app.post("/updateemployee",function(req,res){

    let empid=req.body.empid;
    let name=req.body.ename;
    let dept=req.body.dept;
    let salary=req.body.salary;
    let designation=req.body.designation;
    let mobile=req.body.mobile;

    var MongoClient = require('mongodb').MongoClient;
        var url = "mongodb://127.0.0.1:27017/";
        MongoClient.connect(url)
.then(
 function(db)
 {
  var dbo = db.db("emp");
          var myquery={empid:empid}
          var newvalues = { $set: {empid: empid, name:name,dept:dept,
salary:salary,designation:designation,mobile:mobile}};

          console.log("test "+myquery.empid)
          dbo.collection("employee").updateOne(myquery,newvalues)
    .then(function(){
       console.log("Record Updated..")
       res.send("Update Success..");
    })
    .catch(function(err){
          console.log(err)
    })
})
.catch(function(err){
    console.log(err)
})

    })
app.post("/selectemployee",function(req,res){

    let empid=req.body.empid;

    var MongoClient = require('mongodb').MongoClient;
        var url = "mongodb://127.0.0.1:27017/";
        MongoClient.connect(url)
        .then(
         function(db)
         {

            var dbo=db.db('emp')
            var query={empid:empid}
```

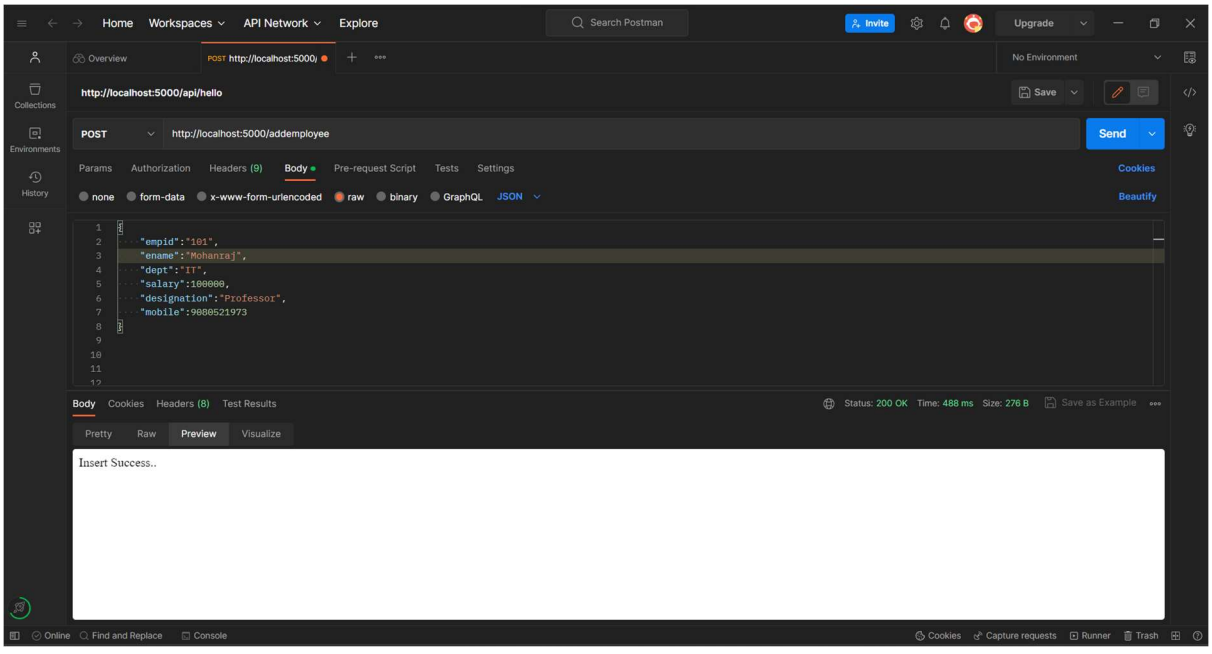
```
            dbo.collection("employee").find(query).toArray()
            .then(function(result){
               console.log("Fetching emlployee")
               res.send(result);

            })
            .catch(function(err){
                  console.log(err)
            })

            })
        .catch(function(err){
            console.log(err)
        })

})

app.post("/deleteemployee",function(req,res){
    let empid=req.body.empid;

    var MongoClient = require('mongodb').MongoClient;
        var url = "mongodb://127.0.0.1:27017/";
        MongoClient.connect(url)
        .then(
         function(db)
         {

            var dbo=db.db('emp')
            var query={empid:empid}
            dbo.collection("employee").deleteOne(query)
            .then(function(result){
               console.log("Record Deleted..")
               res.send("Record Deleted success..");

            })
            .catch(function(err){
                  console.log(err)
            })

            })
        .catch(function(err){
            console.log(err)
        })
           });

app.listen(5000,function(){
    console.log("Server is running on port number 5000")
});
```

DATA IN MONGO DB :

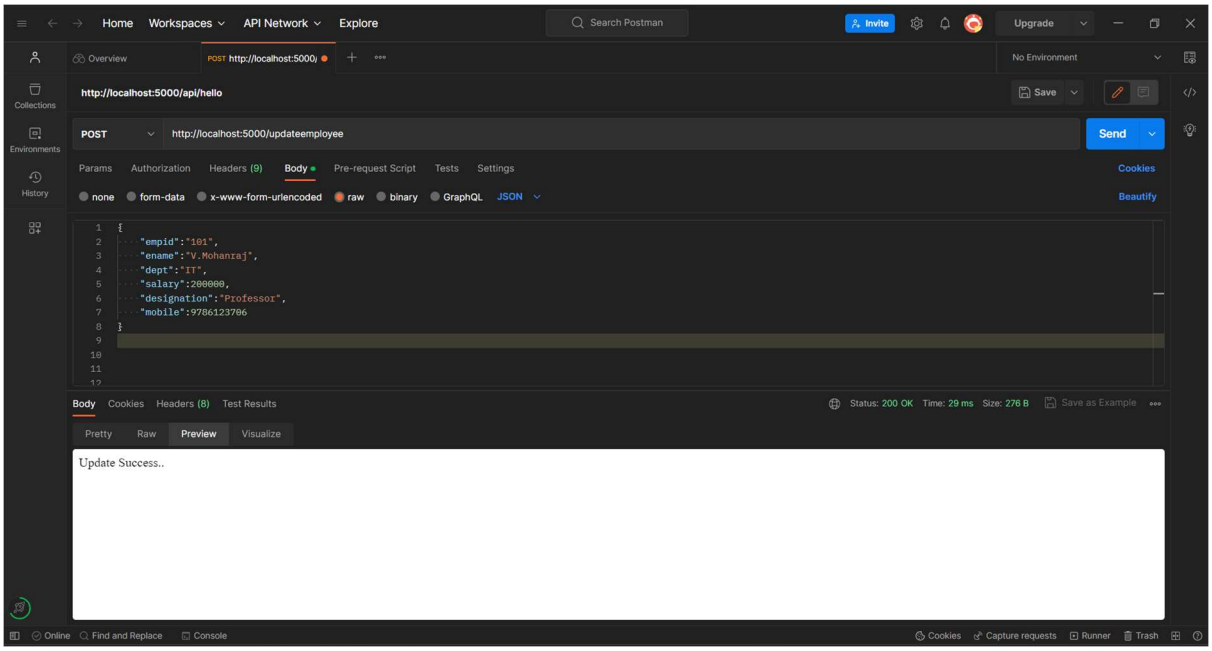


OUTPUT :

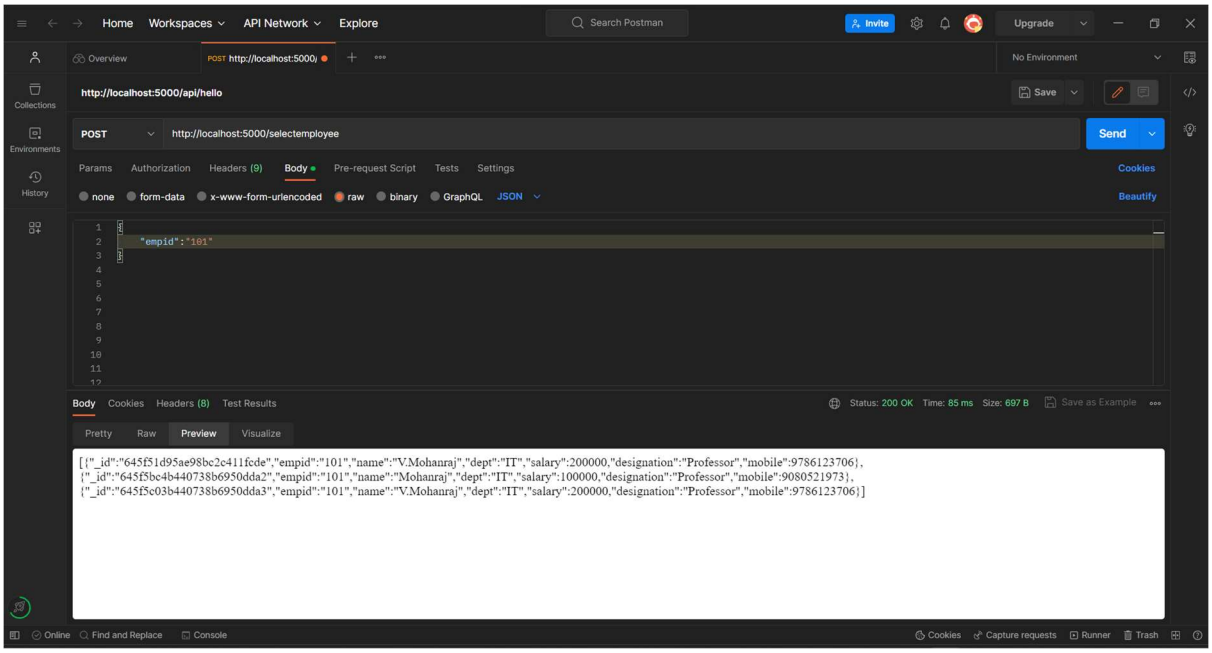
Adding an employee :



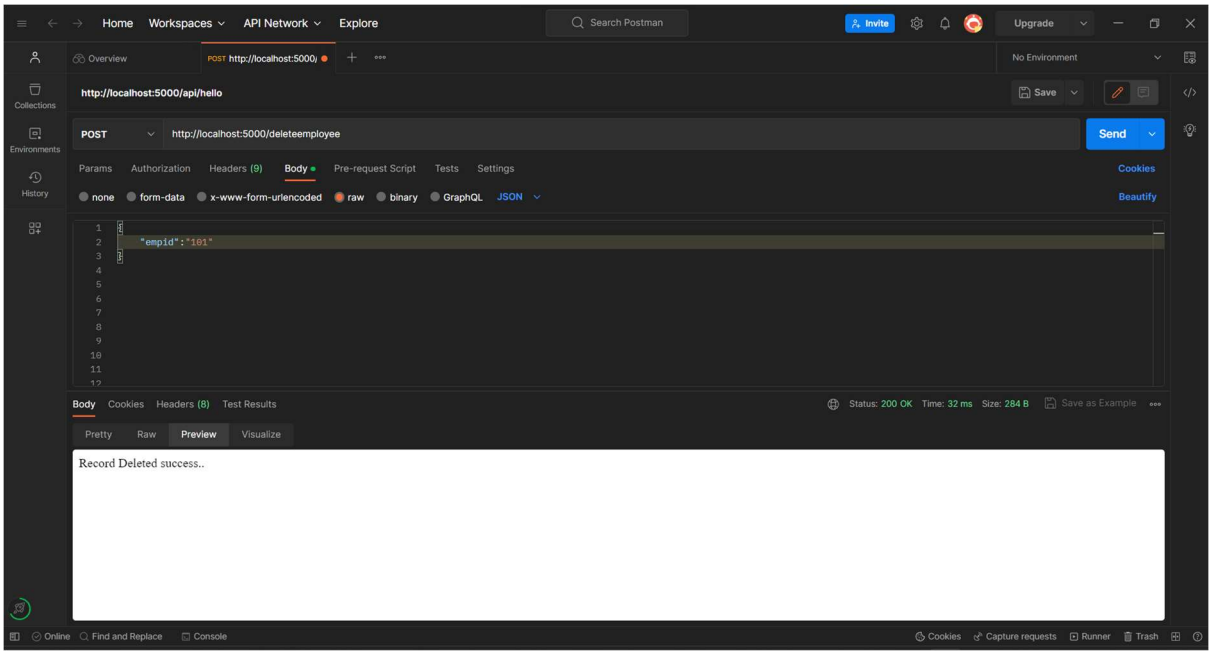
Updating an employee :



Selecting an employee :



Deleting an employee :



RESULT :