

Unit 5: EXPRESS JS ,FORMS AND FILE UPLOAD

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PROBLEM STATEMENT(EVEN SRN's)

1. Create an API that has a collection of books having different fields (such as book_id, book_name, book_price,book_authetc)for each book.
Using HTTP methods GET method extract the data of book using book_id,
Using PUT method update the price, Using POST method insert a new data and display the same. (Use MongoDB database)
2. Create student resume with details (such as name, dob, qualification, nationality etc...) using formdata and upload the student photo to the form.

OBJECTIVE

The objective of this exercise is to test the student on ExpressJS framework. It evaluates the student's knowledge of http request, response objects. Creating RestFul API and web services

PREREQUISITE

In order to write this program, the student needs to understand the fundamentals of HTML and CSS. The student must be familiar with basic Javascript and express module.

ALGORITHM

S1: Create mongo db from terminal
S2: extract and use get post put
S3: create a directory and upload files.

PROGRAM
TEST CASES

Give ant id find the data.

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```
var express= require('express')
var MongoClient= require('mongodb').MongoClient;
var router= express.Router();

router.get("/",function(req,res){ //GET/student
  MongoClient.connect("mongodb://localhost:27017",{
    useUnifiedTopology:true
  },function(err,client){
    if (err) throw err;
    const db= client.db('newdb')
    db.collection('books.collection').find(req.query).toArray(function(err,objs){
      res.send(objs)
    })
  })
})

router.get("/:id",function(req,res){ //GET/student/PES1234
  MongoClient.connect("mongodb://localhost:27017",{
    useUnifiedTopology:true
  },function(err,client){
    if (err) throw err;
    const db= client.db('newdb')

    db.collection('books.collection').findOne({book_id:parseInt(req.params.id)},function(err,objs){
      res.send(objs)
    })
  })
})

router.post("/",function(req,res){
  //POST/student message body{srn="PES67878", name:"abc"}
  MongoClient.connect("mongodb://localhost:27017",{
```

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```
    useUnifiedTopology:true
  },function(err,client){
    if (err) throw err;
    const db= client.db('newdb')
    db.collection('books.collection').insert(req.body,function(err,objs){
      res.send("Save Succesfull!!!")
    })
  })
})

router.put("/:price",function(req,res){
  //PUT/student/PES1234 message body-{srn="",hostel:"yes"}
  MongoClient.connect("mongodb://localhost:27017",{
    useUnifiedTopology:true
  },function(err,client){
    if (err) throw err;
    const db= client.db('newdb')
    db.collection('books.collection').update({book_price:req.params.price}, {
    $set: req.body },{ new: true, upsert: true, returnOriginal: false },function(err,objs){
      res.send("Update Succesfull!!!")
    })
  })
})

module.exports=router

var fetch=require("node-fetch");
var newd={
  "book_id":3,
  "book_name":"death of the nile",
  "book_price":"1500",
  "book_author":"Agatha Christie"
}
fetch("http://localhost:3000/book",{
```

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```
    method:"POST",
    body: JSON.stringify(newd),
    headers:{'content-type':'application/json'}
  }).then(res=>res.json)
  .then(json=>console.log(json))
var fetch=require("node-fetch");
var newd={
  "book_id":3,
  "book_name":"death of the nile",
  "book_price":"11100",
  "book_author":"Agatha Christie"
}
fetch("http://localhost:3000/book/1500",{
  method:"PUT",
  body: JSON.stringify(newd),
  headers:{'content-type':'application/json'}
}).then(res=>res.json)
  .then(json=>console.log(json))
var https=require('https');
var http = require('http');
var app=express();
var MongoClient=require("mongodb").MongoClient;
var bodyParse= require("body-parser")
app.use(bodyParse.json());
var studrouter= require("./student.js")
app.use("/book",studrouter)
app.listen(3000,function(){
  console.log("Serve is up and running")
})

var express=require("express")

var app= express()
var fileupload= require("express-fileupload")
```

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```
app.use(fileupload());
app.post('/upload',function(req,res){
  if(!req.files || req.files.length==0)
    return res.status(400).send("No file to upload")
  var sampleFile= req.files.sampleFile;
  sampleFile.mv("./files/"+sampleFile.name,function(err){
    if(err)
      return req.statusCode(500).send(err)
    res.send("File"+sampleFile.name+"Uploaded")
  })
})
app.get("/form",function(req,res){
  var retform="<form action='http://localhost:4000/upload' method='post'
  encType='multipart/form-data'><input type='file' name='sampleFile'/> <input
  type='submit' value='upload'/></form>";
  res.send(retform)
})
app.listen(4000,function(){
  console.log("Server is up and running")
})
```

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Output:

```
localhost:3000/student
[{"_id":"61b05d16f9d236c0192603d1","book_id":1,"book_name":"julius and caesar","book_price":"1100","book_author":"shake spear"},{"_id":"61b05d26f9d236c0192603d2","book_id":2,"book_name":"charlie and choclate factory","book_price":"1800","book_author":"Roald"}]
```

```
localhost:3000/book
[{"_id":"61b05d16f9d236c0192603d1","book_id":1,"book_name":"julius and caesar","book_price":"1100","book_author":"shake spear"},{"_id":"61b05d26f9d236c0192603d2","book_id":2,"book_name":"charlie and choclate factory","book_price":"1800","book_author":"Roald"}, {"_id":"61b08ea6e6b3ca4ead231176","book_id":3,"book_name":"death of the nile","book_price":"1100","book_author":"Agatha Christie"}]
```

```
localhost:3000/book/1
{"_id":"61b05d16f9d236c0192603d1","book_id":1,"book_name":"julius and caesar","book_price":"1100","book_author":"shake spear"}
```

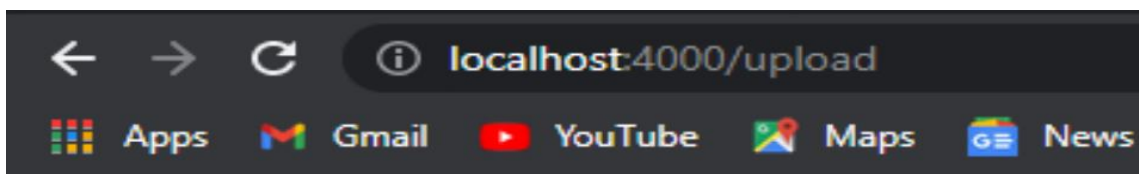
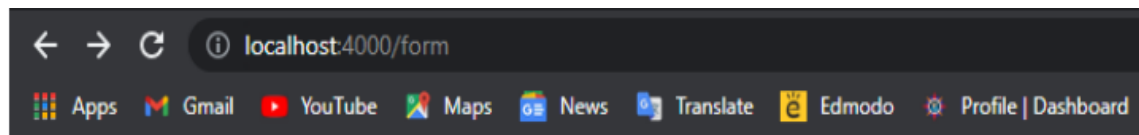
```
localhost:3000/book
[{"_id":"61b05d16f9d236c0192603d1","book_id":1,"book_name":"julius and caesar","book_price":"1100","book_author":"shake spear"},{"_id":"61b05d26f9d236c0192603d2","book_id":2,"book_name":"charlie and choclate factory","book_price":"1800","book_author":"Roald"}, {"_id":"61b08ea6e6b3ca4ead231176","book_id":3,"book_name":"death of the nile","book_price":"1100","book_author":"Agatha Christie"}]
```

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```
_id: ObjectId("61b05d16f9d236c0192603d1")  
book_id: 1  
book_name: "julius and caesar"  
book_price: "1100"  
book_author: "shake spear"
```

```
_id: ObjectId("61b05d26f9d236c0192603d2")  
book_id: 2  
book_name: "charlie and choclate factory"  
book_price: "1800"  
book_author: "Roald"
```

```
_id: ObjectId("61b08ea6e6b3ca4ead231176")  
book_id: 3  
book_name: "death of the nile"  
book_price: "1500"  
book_author: "Agatha Christie"
```



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