

Date:21.11.2021

Third Year B. Tech., Sem V 2021-22

Programming Lab 3

Practical No- 8

PRN/ Roll No: 2019BTECS00064

Full name: Kunal Santosh Kadam

Batch: T2

**Title of Practical: To use pre-built and user defined modules
in Node.js Application.**

Problem Statement 1:

1. With the help of suitable examples use following Node.js pre-built modules in Node.js Application.
 - a. File System Modules (fs)
Read Operation:

G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp\data.txt (myapp) - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

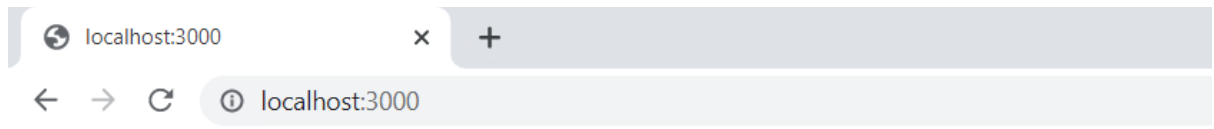
The screenshot shows the Sublime Text editor interface. On the left, the 'FOLDERS' panel displays the project structure: myapp (expanded) contains bin (expanded) with www, node_modules, public, routes (expanded) with index.js, users.js, and views (expanded) with app.js, data.txt (selected), package-lock.json, and package.json. The main editor area has a single tab open for 'data.txt' containing the text '1 Testing of fs module.'

G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp\routes\index.js (myapp) - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help

The screenshot shows the Sublime Text editor interface. On the left, the 'FOLDERS' panel displays the project structure: myapp (expanded) contains bin (expanded) with www, node_modules, public, routes (expanded) with index.js (selected), users.js, and views (expanded) with app.js, data.txt, package-lock.json, and package.json. The main editor area has a tab open for 'index.js' containing the following JavaScript code:

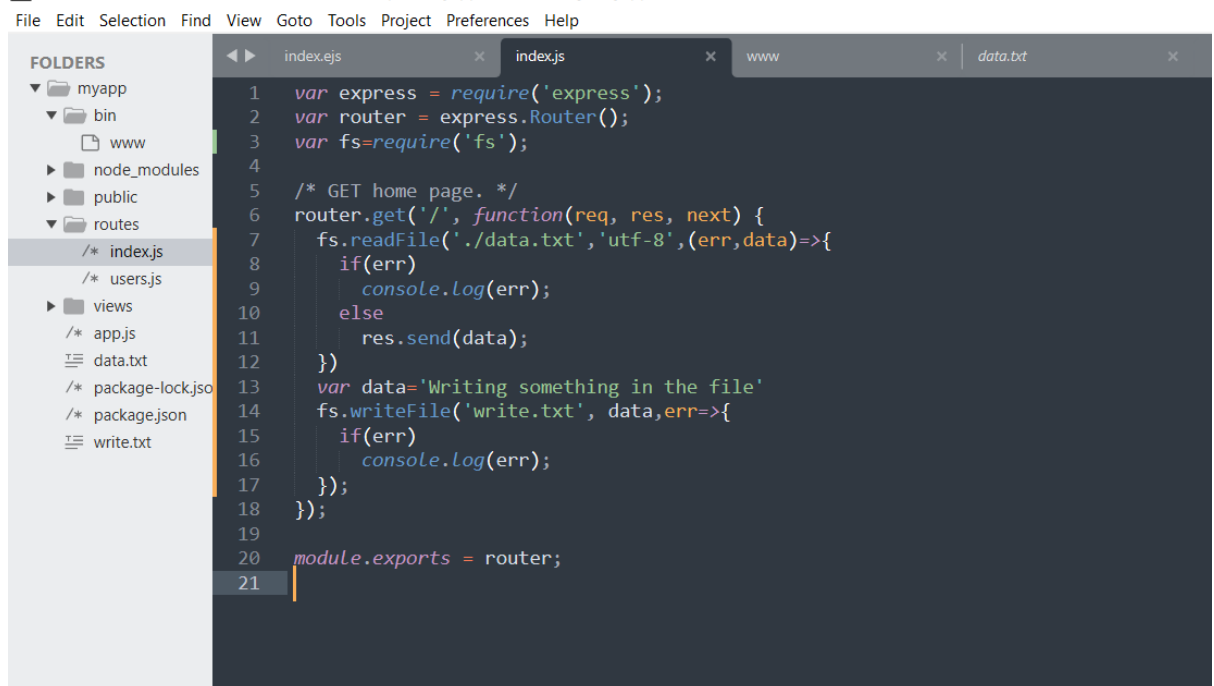
```
1 var express = require('express');
2 var router = express.Router();
3 var fs=require('fs');
4
5 /* GET home page. */
6 router.get('/', function(req, res, next) {
7   fs.readFile('./data.txt','utf-8',(err,data)=>{
8     if(err)
9       console.log(err);
10    else
11      res.send(data);
12   })
13 });
14
15 module.exports = router;
16
```

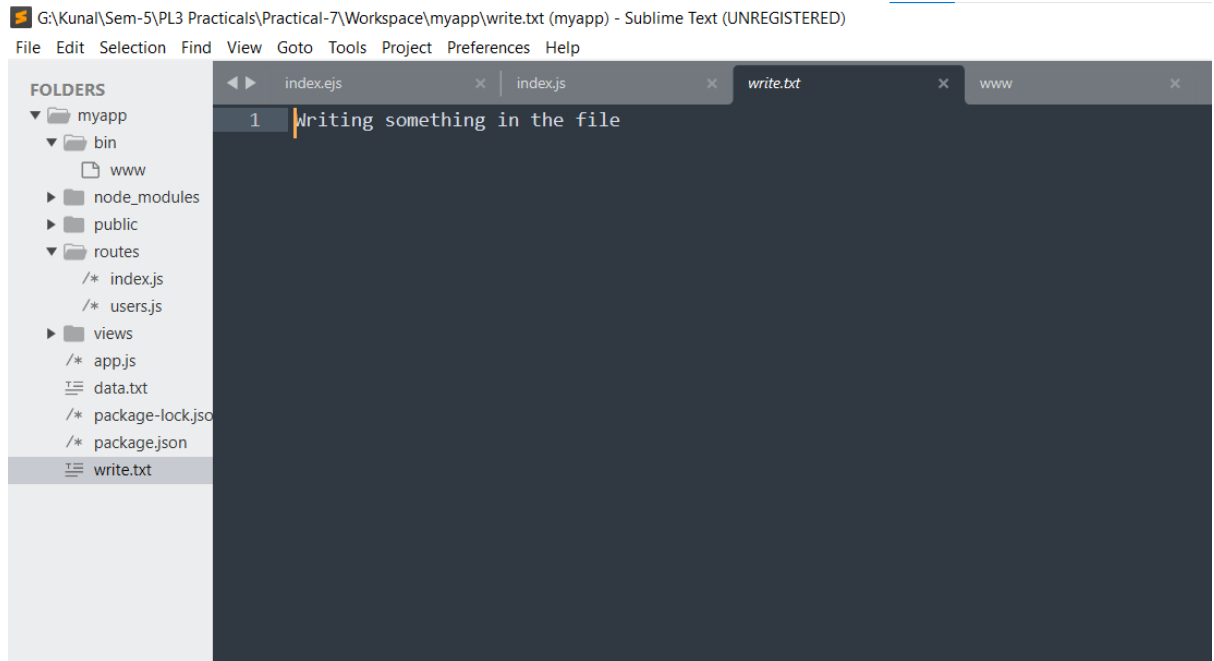


Testing of fs module.

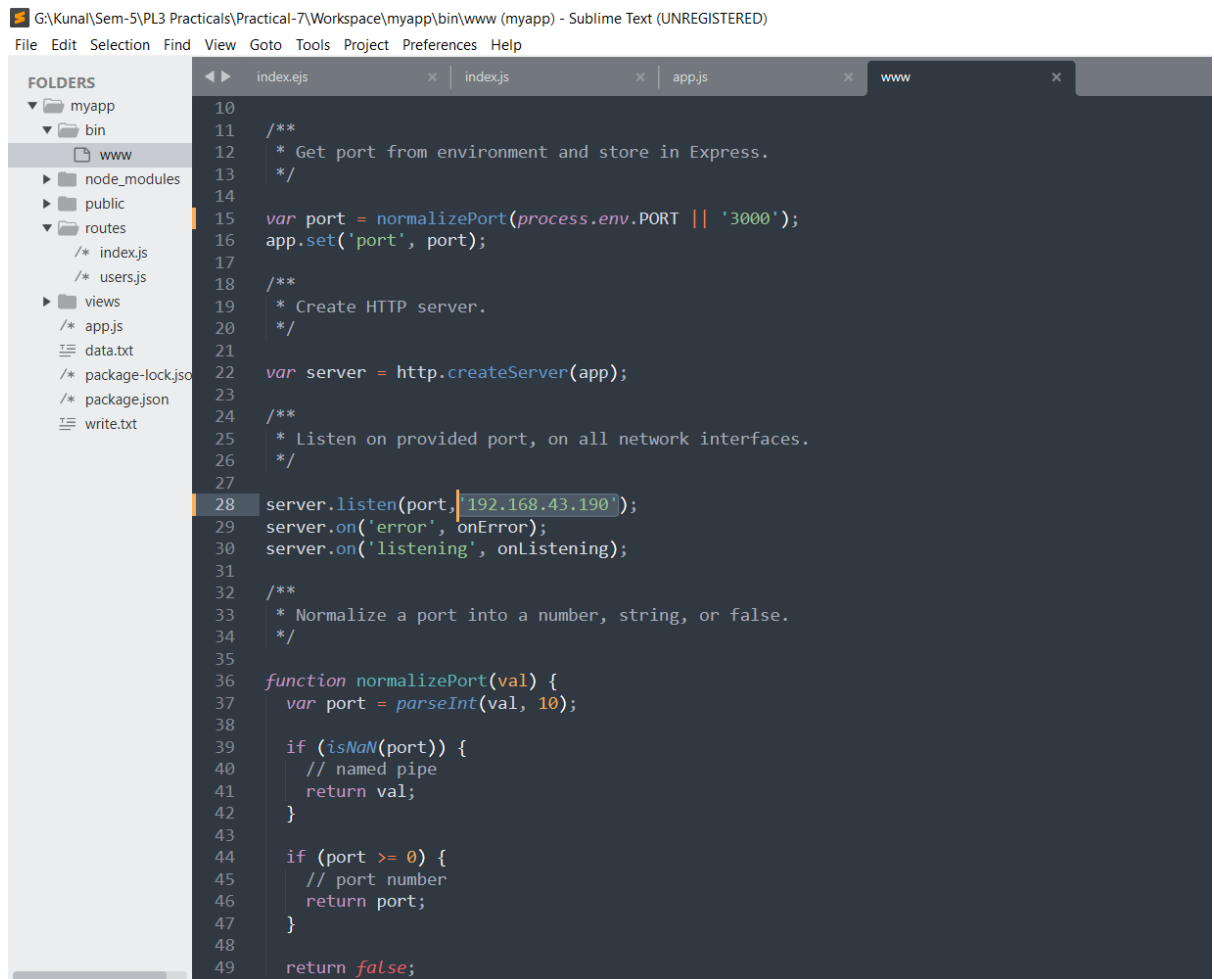
Write Operation:

G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp\routes\index.js (myapp) - Sublime Text (UNREGISTERED)





b. Secure HTTP Module (https)



- c. Nodemailer Module (nodemailer)
 - i. Install this module from npm

```
C:\Windows\System32\cmd.exe

code: 'MODULE_NOT_FOUND',
requireStack: [
  'G:\\Kunal\\Sem-5\\PL3 Practicals\\Practical-7\\Workspace\\myapp\\app.js',
  'G:\\Kunal\\Sem-5\\PL3 Practicals\\Practical-7\\Workspace\\myapp\\bin\\www'
]
}
npm ERR! code ELIFECYCLE
npm ERR! errno 1
npm ERR! myapp@0.0.0 start: `node ./bin/www`
npm ERR! Exit status 1
npm ERR!
npm ERR! Failed at the myapp@0.0.0 start script.
npm ERR! This is probably not a problem with npm. There is likely additional logging output above.

npm ERR! A complete log of this run can be found in:
npm ERR! C:\tmp\nodejs\npm-cache\_logs\2021-11-24T05_34_51_679Z-debug.log


G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp>npm install nodemailer
+ nodemailer@6.7.1
added 1 package from 1 contributor and audited 56 packages in 9.079s
found 0 vulnerabilities

G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp>
```

```
G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp\routes\index.js (myapp) - Sublime Text (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

FOLDERS
▼ myapp
  ▼ bin
    www
  node_modules
  public
  routes
    /* index.js
    /* users.js
  views
  /* app.js
  data.txt
  /* package-lock.json
  /* package.json
  write.txt

index.js
1  var express = require('express');
2  var router = express.Router();
3  var fs=require('fs');
4  var nodemailer = require('nodemailer');
5
6  /* GET home page. */
7  router.get('/', function(req, res, next) {
8    // fs.readFile('./data.txt', 'utf-8', (err, data)=>{
9    //   if(err)
10     //   console.log(err);
11     //   else
12     //     res.send(data);
13     // })
14     // var data='Writing something in the file'
15     // fs.writeFile('write.txt', data,err=>{
16     //   if(err)
17     //     console.log(err);
18     //   });
19     var transporter = nodemailer.createTransport({
20       service: 'Gmail',
21       auth:{
22         user: 'narutohiddenleaf2002@gmail.com',
23         pass: ''
24       }
25     })
26     transporter.sendMail({
27       from: 'narutohiddenleaf2002@gmail.com',
28       to: 'kunal.kadam@walchandsangli.ac.in',
29       subject: 'Testing nodemailer!!',
30       text: 'Test Successful'
31     });
32     console.log('Mail Gone');
33   });
34
35   module.exports = router;
36
```

 Gmail

Compose

Inbox

39

Starred

Snoozed

Sent

Drafts

7

More

Meet

New meeting

My meetings

Hangouts

M 2019BTECS00064

+

Search mail

←

testing the mail service

External

Inbox x

narutohiddenleaf2002@gmail.com

to me

test successfull

Reply

Forward

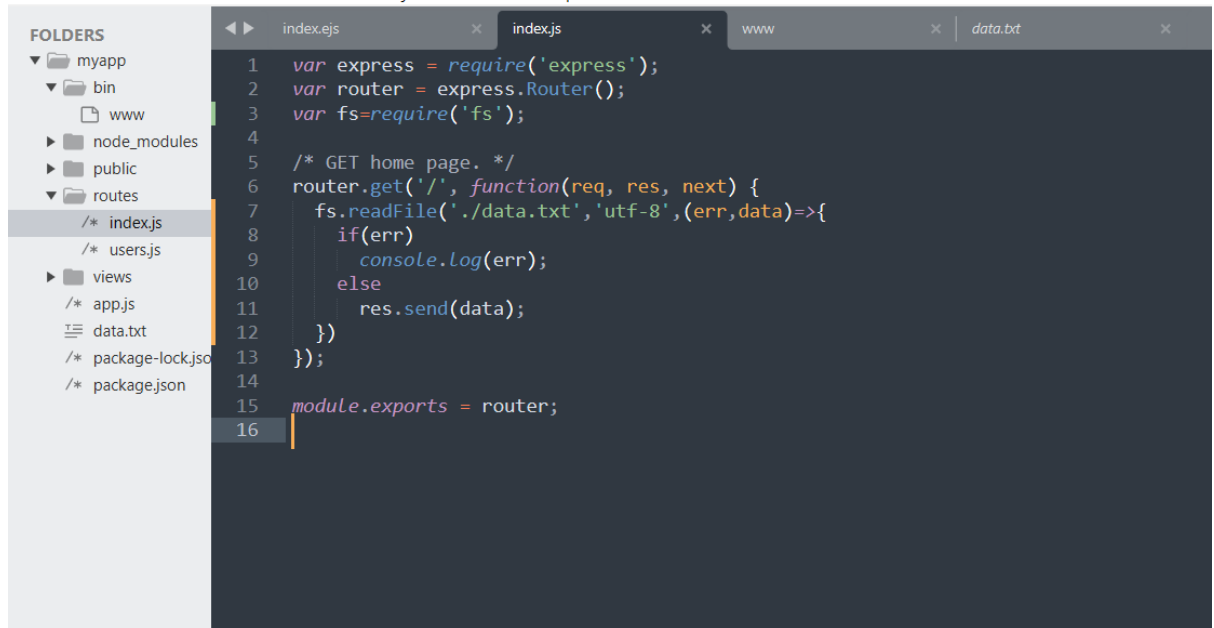
Problem Statement 2:

1. Create a user defined module and use it in Node.js Application that uses HTTP server.

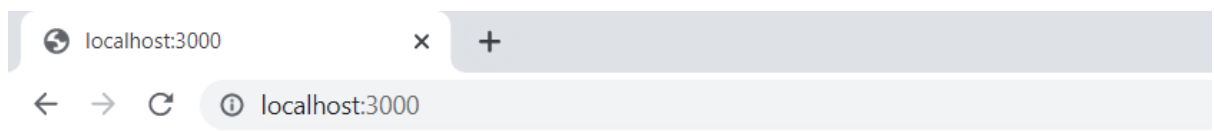
Ans:

G:\Kunal\Sem-5\PL3 Practicals\Practical-7\Workspace\myapp\routes\index.js (myapp) - Sublime Text (UNREGISTERED)

File Edit Selection Find View Goto Tools Project Preferences Help



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7   fs.readFile('./data.txt', 'utf-8', (err, data)=>{
8     if(err)
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10    else
11      res.send(data);
12  })
13 });
14
15 module.exports = router;
16
```



Testing of fs module.