

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

Programming Lab 3

Practical No- 7

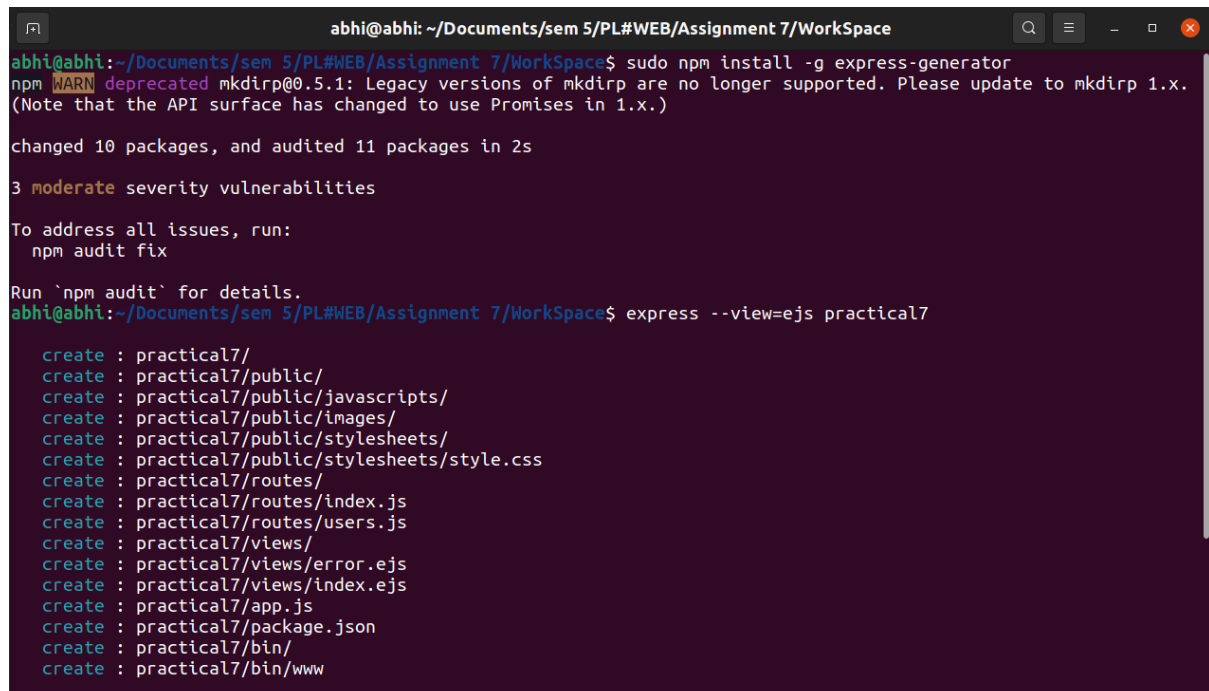
PRN: 2019BTECS00071

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Batch: T2

Title of Practical: To create a Node.js HTTP server and REPL Commands.

1. Create a separate workspace for your project using the selected IDE.



```
abhi@abhi: ~/Documents/sem 5/PL#WEB/Assignment 7/WorkSpace
abhi@abhi:~/Documents/sem 5/PL#WEB/Assignment 7/WorkSpace$ sudo npm install -g express-generator
npm WARN deprecated mkdirp@0.5.1: Legacy versions of mkdirp are no longer supported. Please update to mkdirp 1.x.
(Note that the API surface has changed to use Promises in 1.x.)

changed 10 packages, and audited 11 packages in 2s

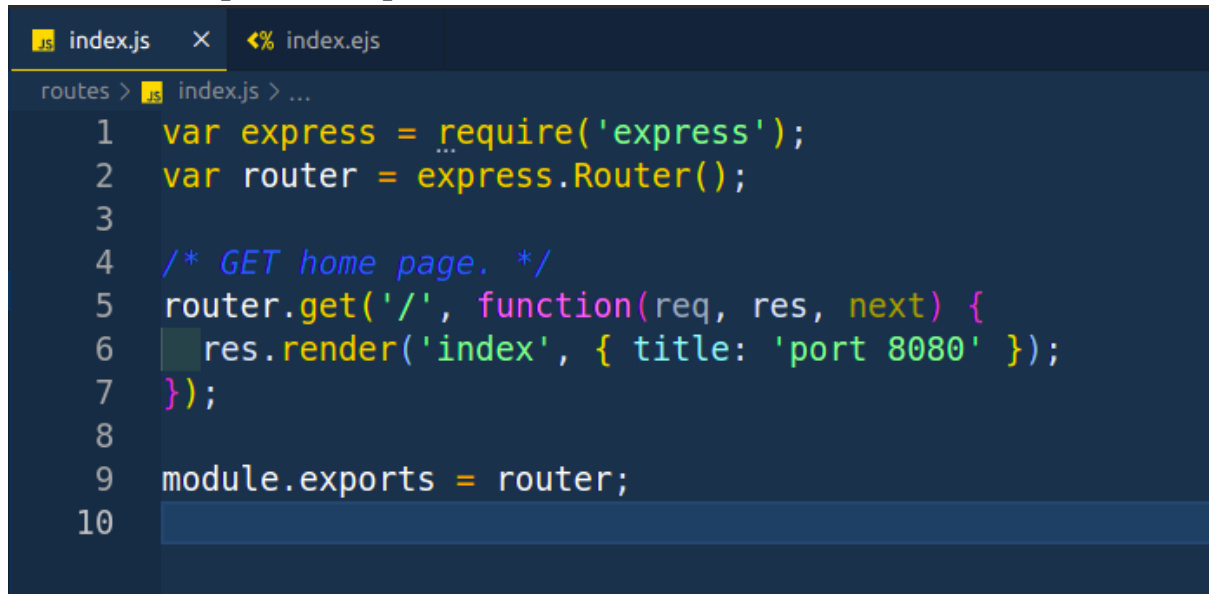
3 moderate severity vulnerabilities

To address all issues, run:
  npm audit fix

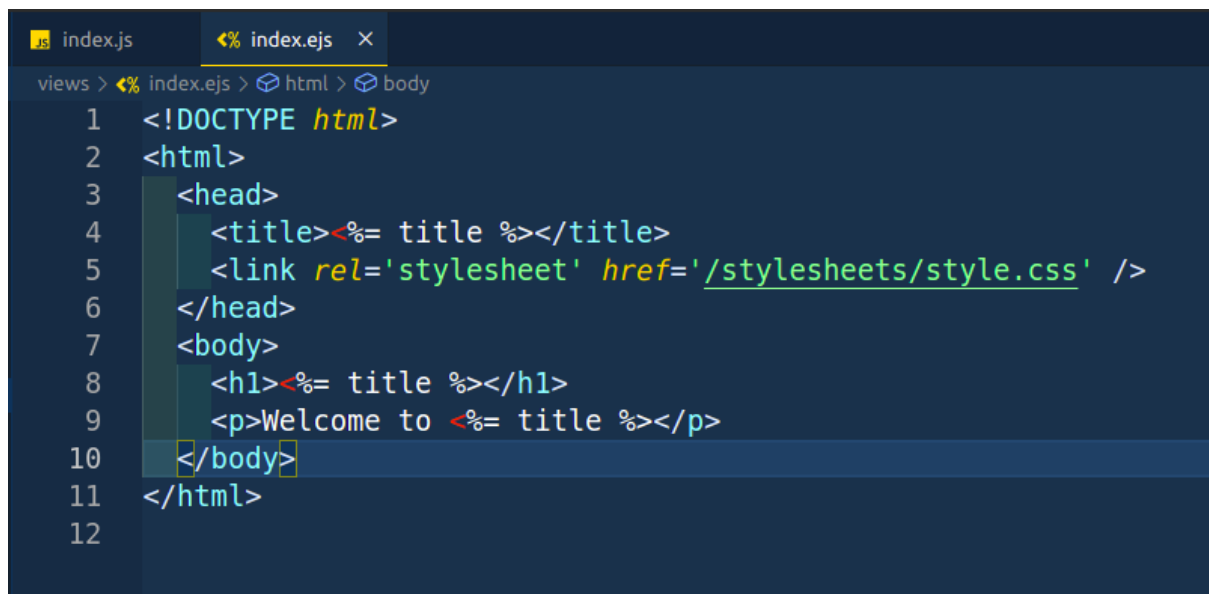
Run `npm audit` for details.
abhi@abhi:~/Documents/sem 5/PL#WEB/Assignment 7/WorkSpace$ express --view=ejs practical7

create : practical7/
create : practical7/public/
create : practical7/public/javascripts/
create : practical7/public/images/
create : practical7/public/stylesheets/
create : practical7/public/stylesheets/style.css
create : practical7/routes/
create : practical7/routes/index.js
create : practical7/routes/users.js
create : practical7/views/
create : practical7/views/error.ejs
create : practical7/views/index.ejs
create : practical7/app.js
create : practical7/package.json
create : practical7/bin/
create : practical7/bin/www
```

2. Write a program to start a Node.js server on localhost and listen to the client requests on port number 8080.



```
index.js  x  index.ejs
routes > index.js > ...
1  var express = require('express');
2  var router = express.Router();
3
4  /* GET home page. */
5  router.get('/', function(req, res, next) {
6    res.render('index', { title: 'port 8080' });
7  });
8
9  module.exports = router;
10
```



```
index.js  index.ejs  x
views > index.ejs > html > body
1  <!DOCTYPE html>
2  <html>
3    <head>
4      <title><%= title %></title>
5      <link rel='stylesheet' href='/stylesheets/style.css' />
6    </head>
7    <body>
8      <h1><%= title %></h1>
9      <p>Welcome to <%= title %></p>
10   </body>
11 </html>
12
```

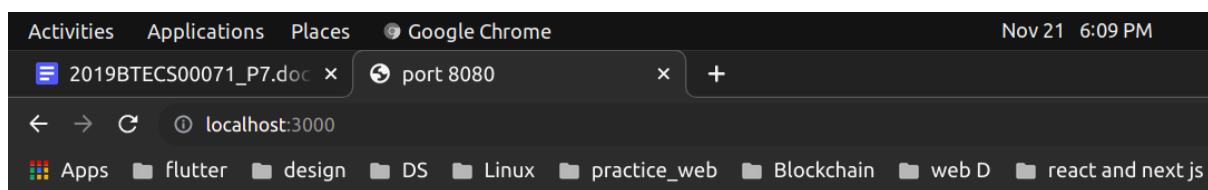
```
PROBLEMS  OUTPUT  TERMINAL

abhi@abhi:~/Documents/sem 5/PL#WEB/Assignment 7/WorkSpace/practical7$ npm i
added 54 packages, and audited 55 packages in 10s

found 0 vulnerabilities
abhi@abhi:~/Documents/sem 5/PL#WEB/Assignment 7/WorkSpace/practical7$ npm start

> practical7@0.0.0 start
> node ./bin/www

GET / 200 16.920 ms - 213
GET /stylesheets/style.css 200 7.700 ms - 111
GET /favicon.ico 404 2.132 ms - 1373
```

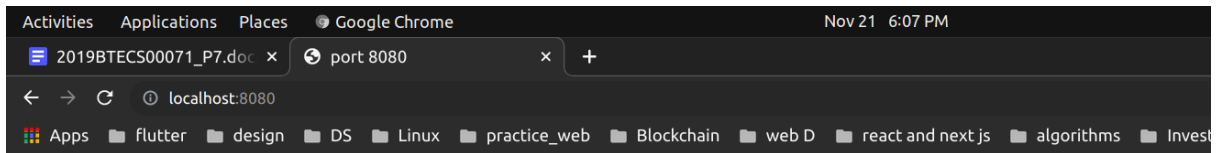


port 8080

Welcome to port 8080

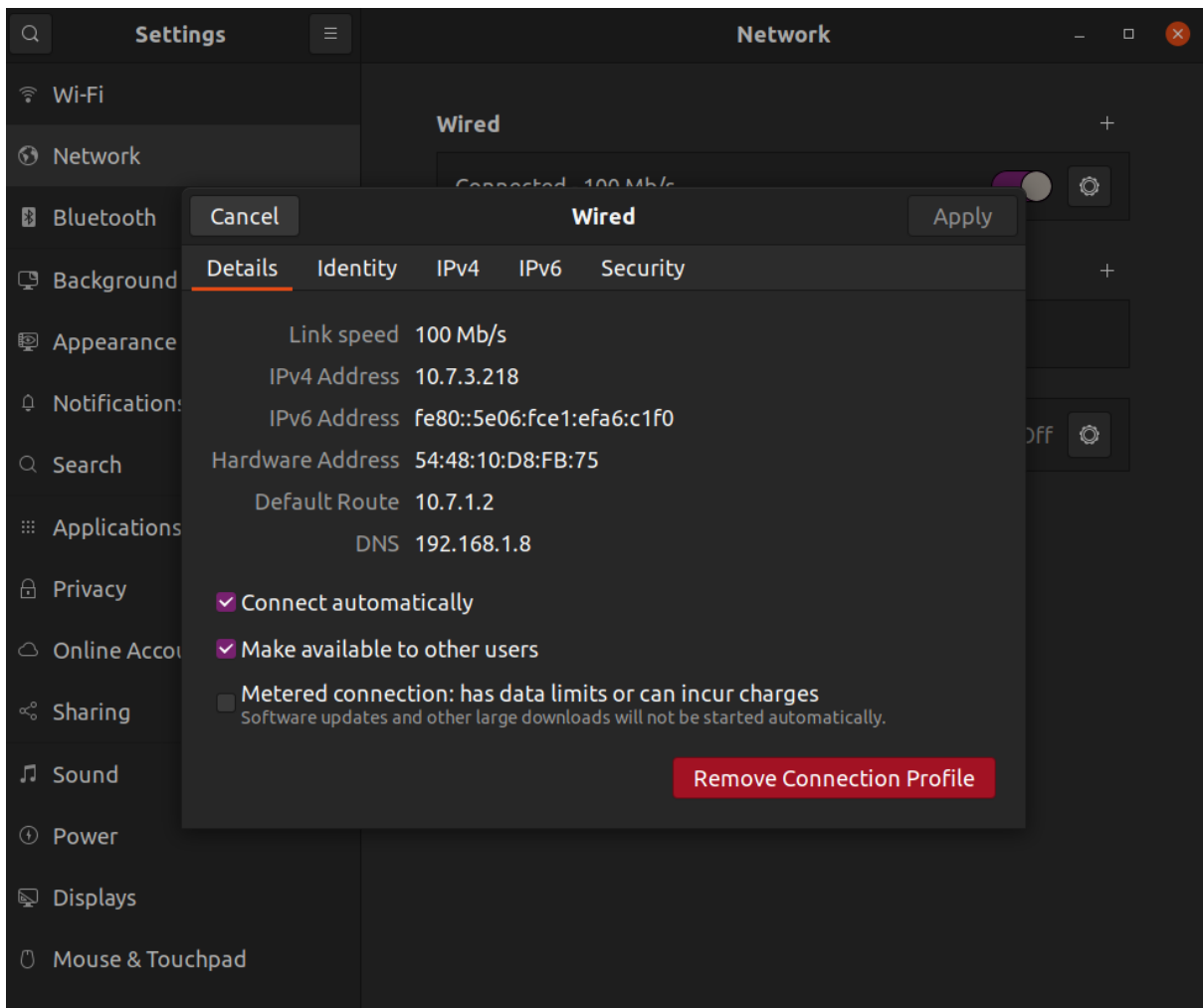
3. Change the Node.js IP address and port number and start the server again.

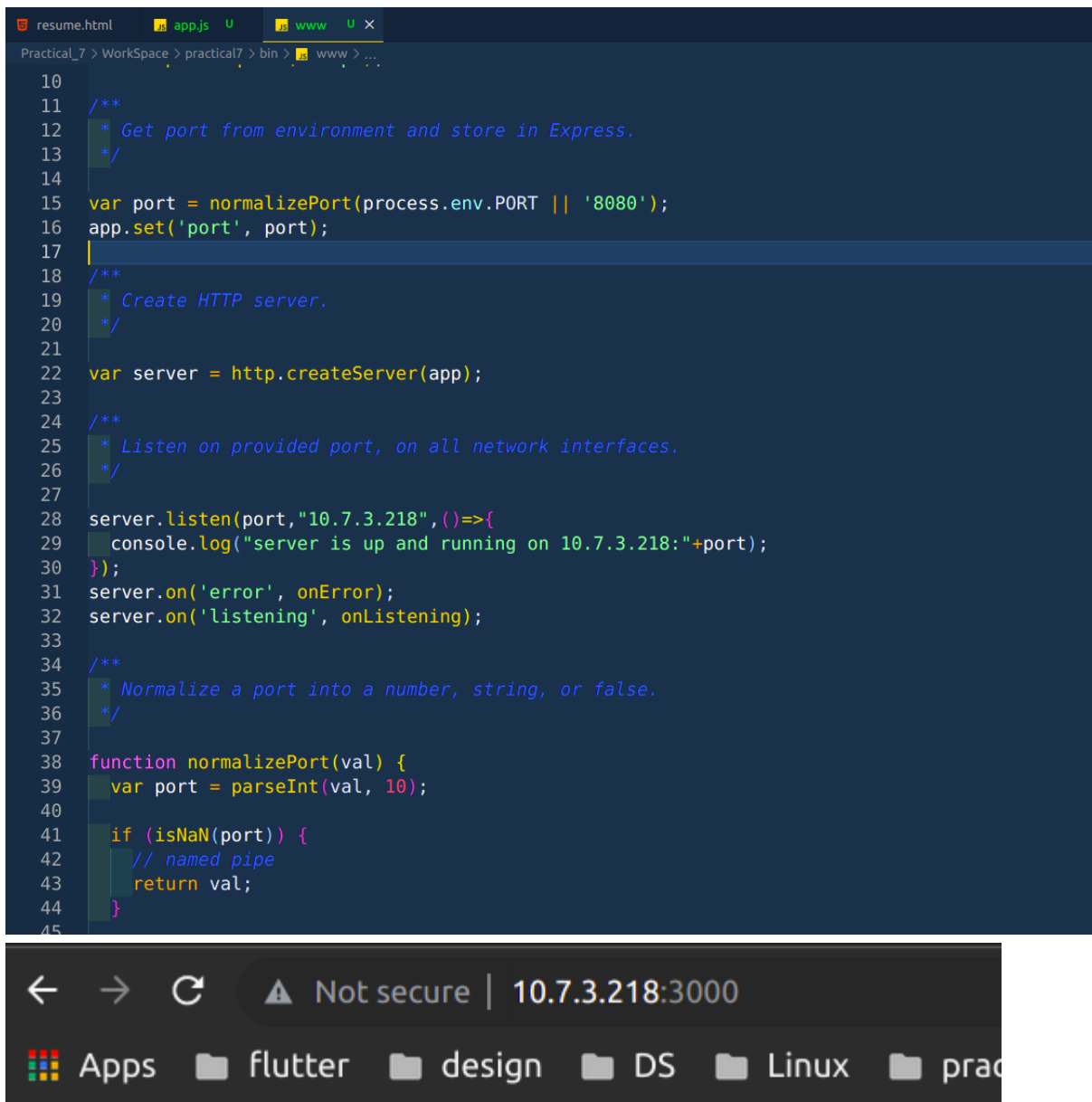
```
var port = normalizePort(process.env.PORT || '8080');
app.set('port', port);
```



port 8080

Welcome to port 8080





port 8080

Welcome to port 8080

Problem Statement 2:

- 1. Perform the fundamentals programming constructs such as operations, loops, variable assignments and printing their values using Node.js REPL environment.**
- 2. Save the REPL session to a file and reload the REPL session.**

```
Activities Applications Places Terminal Nov 21 6:15 PM
abhi@abhi: ~/Desktop
abhi@abhi:~/Desktop$ node
Welcome to Node.js v12.22.5.
Type ".help" for more information.
> 5+4
9
> _-2
7
> var x
undefined
> x=8
8
> var y = 4
undefined
> x-y
4
> x % y
0
> x / y
2
> for(var i= 0; i< 5; i++) console.log(i);
0
1
2
3
4
undefined
> .help
.break      Sometimes you get stuck, this gets you out
.clear      Alias for .break
.editor     Enter editor mode
.exit       Exit the repl
.help       Print this help message
.load       Load JS from a file into the REPL session
.save       Save all evaluated commands in this REPL session to a file

Press ^C to abort current expression, ^D to exit the repl
> .save nodeCommandline
Session saved to: nodeCommandline
> s
```

```
Activities Applications Places Terminal
abhi@abhi: ~/Desktop
abhi@abhi:~/Desktop$ node
Welcome to Node.js v12.22.5.
Type ".help" for more information.
> .load nodeCommandline
5+4
_-2
var x
x=8
var y = 4
x-y
x % y
x / y
for(var i= 0; i< 5; i++) console.log(i);
0
1
2
3
4
undefined
> 
```