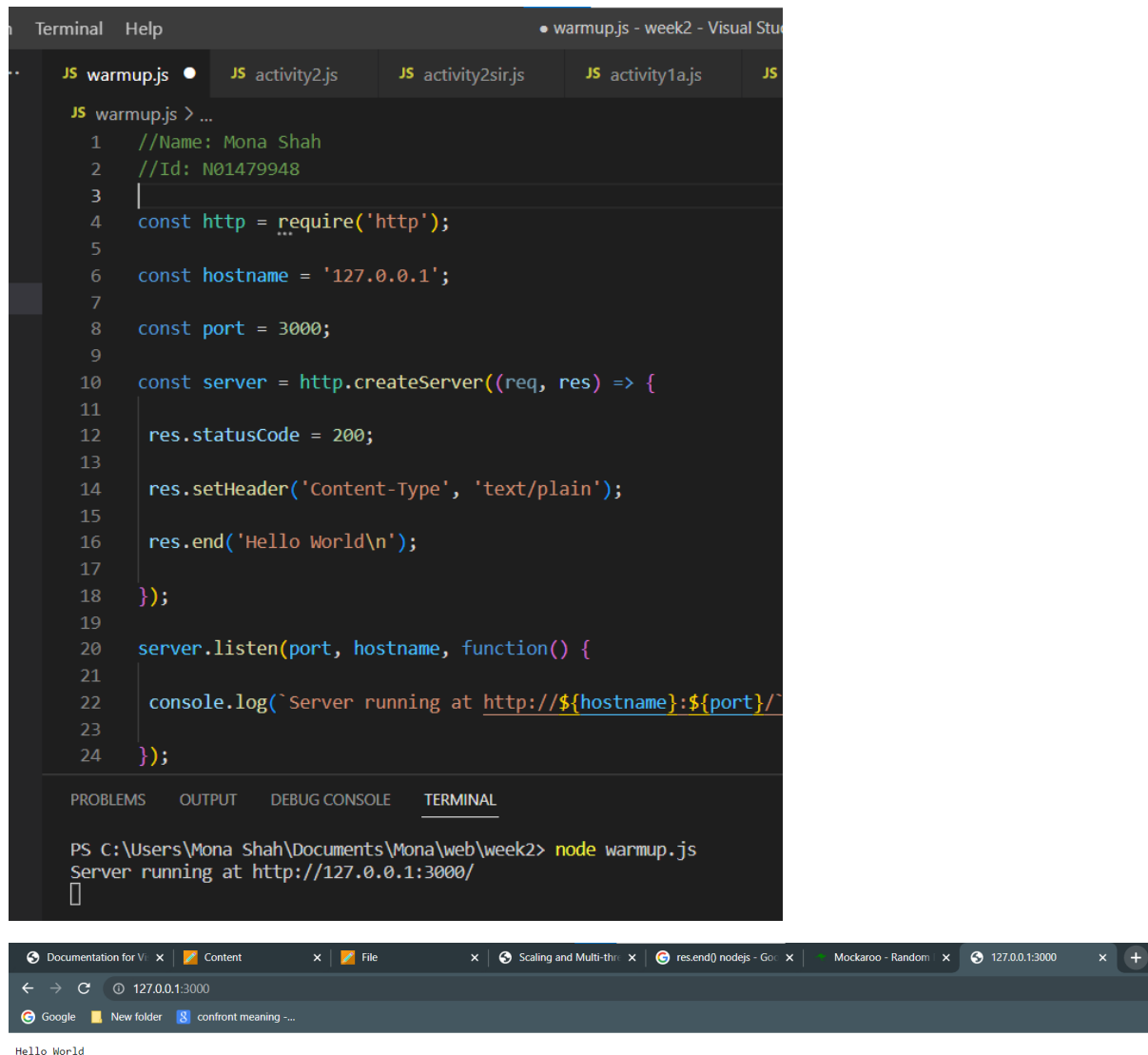
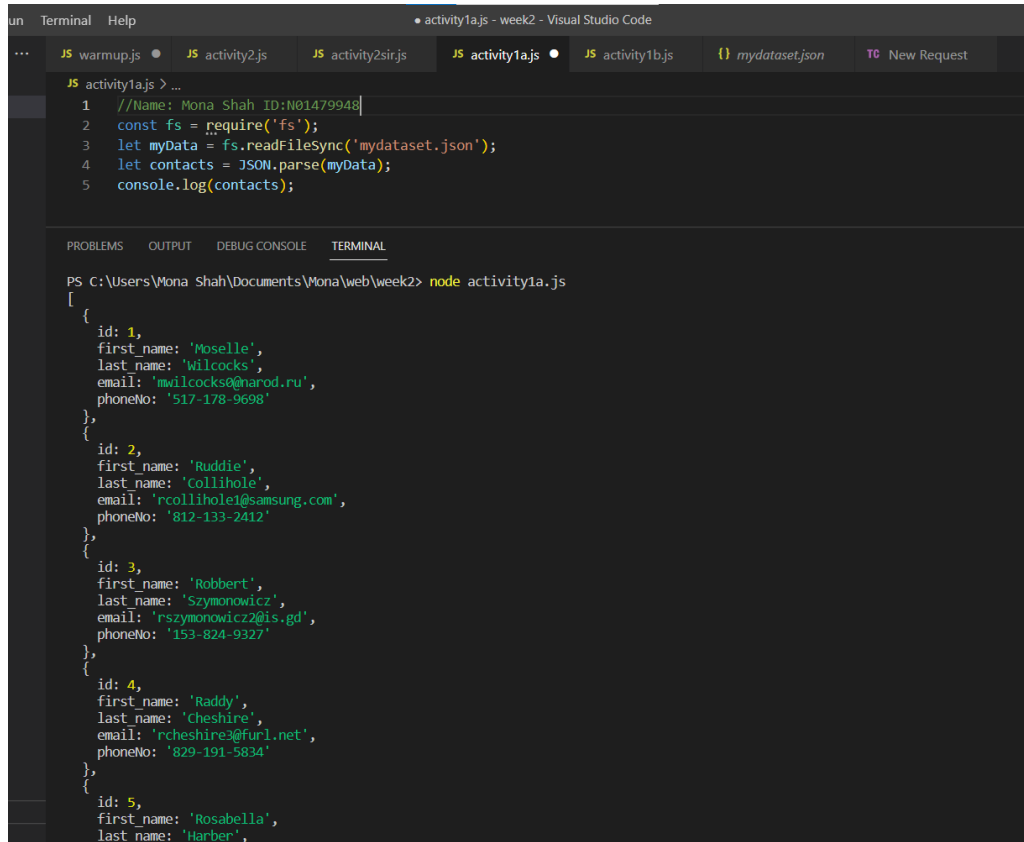


- Warmup Activity:



- Activity – 1
 - 1-A



The screenshot shows the Visual Studio Code interface with a file named `activity1a.js` open. The code in the editor reads a JSON file `mydataset.json` and logs its contents to the console. The terminal output shows the JSON data being read, which is an array of five contact objects. Each object contains an `id`, `first_name`, `last_name`, `email`, and `phoneNo`.

```
JS activity1a.js > ...
1 //Name: Mona Shah ID:N01479948
2 const fs = require('fs');
3 let myData = fs.readFileSync('mydataset.json');
4 let contacts = JSON.parse(myData);
5 console.log(contacts);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

```
PS C:\Users\Mona Shah\Documents\Mona\web\week2> node activity1a.js
[
  {
    id: 1,
    first_name: 'Moselle',
    last_name: 'Willcocks',
    email: 'mwillcocks@narod.ru',
    phoneNo: '517-178-9698'
  },
  {
    id: 2,
    first_name: 'Ruddie',
    last_name: 'Collihole',
    email: 'rcollihole1@samsung.com',
    phoneNo: '812-133-2412'
  },
  {
    id: 3,
    first_name: 'Robbert',
    last_name: 'Szymonowicz',
    email: 'rszymonowicz2@is.gd',
    phoneNo: '153-824-9327'
  },
  {
    id: 4,
    first_name: 'Raddy',
    last_name: 'Cheshire',
    email: 'rcheshire3@furl.net',
    phoneNo: '829-191-5834'
  },
  {
    id: 5,
    first_name: 'Rosabella',
    last_name: 'Harber',
  }
]
```

- 1-B

The screenshot shows a Visual Studio Code editor with a file named `activity1b.js` open. The code in the file is as follows:

```
1 //Name: Mona Shah ID:N01479948
2 var fs = require("fs");
3 fs.readFile('mydataset.json', function (err,data) {
4     if (err) {
5         console.error(err);
6         return;
7     }
8     console.log(data.toString());
9 });
10 console.log("Program Ended");
```

The terminal output shows the command `node activity1b.js` being executed, followed by the text `Program Ended` and a large JSON array of 26 objects, each containing an id, first_name, last_name, email, and phoneNo.

```
PS C:\Users\Mona Shah\Documents\Wona\web\week2> node activity1b.js
Program Ended
[{"id":1,"first_name":"Moselle","last_name":"Wilcocks","email":"mwilcocks@narod.ru","phoneNo":"517-178-9698"},
{"id":2,"first_name":"Ruddie","last_name":"Collihole","email":"rcollihole1@samsung.com","phoneNo":"812-133-2412"},
{"id":3,"first_name":"Robbert","last_name":"Szymonowicz","email":"rszymonowicz2@is.gd","phoneNo":"153-824-9327"},
{"id":4,"first_name":"Raddy","last_name":"Cheshire","email":"rcheshire3@furl.net","phoneNo":"829-191-5834"},
{"id":5,"first_name":"Rosabella","last_name":"Harber","email":"rharber4@usa.gov","phoneNo":"603-829-8286"},
{"id":6,"first_name":"Keith","last_name":"Polye","email":"kpolye5@freewebs.com","phoneNo":"824-965-4586"},
{"id":7,"first_name":"Shawna","last_name":"MacNeillage","email":"smacneillage6@zdnnet.com","phoneNo":"305-101-6830"},
{"id":8,"first_name":"Edi","last_name":"Twining","email":"etwining7@va.gov","phoneNo":"991-927-5075"},
{"id":9,"first_name":"Lorne","last_name":"Ollier","email":"loillier8@mapy.cz","phoneNo":"761-419-8612"},
{"id":10,"first_name":"Peirce","last_name":"Cutress","email":"pcutress9@cyberchimps.com","phoneNo":"376-579-8218"},
{"id":11,"first_name":"Kippar","last_name":"Purves","email":"kpurvesa@tuttocitta.it","phoneNo":"723-623-7821"},
{"id":12,"first_name":"Hobart","last_name":"Lyngsted","email":"hlyngstedb@webmd.com","phoneNo":"309-441-9133"},
{"id":13,"first_name":"Becky","last_name":"Adamovsky","email":"badamovskyc@ezinearticles.com","phoneNo":"531-586-6917"},
{"id":14,"first_name":"Bruce","last_name":"Desorts","email":"bdesorts@joomla.org","phoneNo":"251-471-7837"},
{"id":15,"first_name":"Liva","last_name":"Radband","email":"lradbande@wordpress.org","phoneNo":"305-235-2154"},
{"id":16,"first_name":"Kayley","last_name":"Rooze","email":"kroozeff@ibm.com","phoneNo":"553-954-8923"},
{"id":17,"first_name":"Donnie","last_name":"BURWIN","email":"dburwing@house.gov","phoneNo":"392-884-3524"},
{"id":18,"first_name":"Jerrilee","last_name":"Harsent","email":"jharsenth@instagram.com","phoneNo":"707-971-8415"},
{"id":19,"first_name":"Nealson","last_name":"Decourcy","email":"ndecourcy@webden.co.uk","phoneNo":"761-858-9890"},
{"id":20,"first_name":"Chaddie","last_name":"Treske","email":"ctreskej@webs.com","phoneNo":"824-639-1897"},
{"id":21,"first_name":"Margalo","last_name":"Neilands","email":"mneilandsk@eventbrite.com","phoneNo":"972-287-8936"},
{"id":22,"first_name":"Maryann","last_name":"Stithe","email":"mstithel@google.fr","phoneNo":"735-713-0723"},
{"id":23,"first_name":"Franklyn","last_name":"Campsall","email":"fcampsallm@ucoz.com","phoneNo":"562-200-9440"},
{"id":24,"first_name":"Lew","last_name":"Strank","email":"lstrankr@jalum.net","phoneNo":"716-809-2194"},
{"id":25,"first_name":"Aline","last_name":"Covolini","email":"acovolinio@archive.org","phoneNo":"567-782-8822"},
{"id":26,"first_name":"Vic","last_name":"Belward","email":"vbelwardp@jigsy.com","phoneNo":"909-496-4881"},
```

- 1-C

In Activity1-A, we use the blocking code functionality: that is the other instruction will be blocked until the file input output is not completed. To overcome this, in Activity 1-B we use the Callback mechanism. The Callback function will execute at the end so the code can be drafted in a way that we can achieve asynchronism.

- Activity-2

Documentation for V... x Content x File x Scaling and Multi-thr... x nodemon - ngm x Mockaroo - Ra...

mockaroo.com

Google New folder confront meaning - ...

Need some mock data to test your app? Mockaroo lets you generate up to 1,000 rows of realistic test data in CSV, JSON, SQL, and Excel formats.

[Need more data? Plans start at just \\$60/year.](#) Mockaroo is also available as a [docker image](#) that you can deploy in your own private cloud.

Field Name	Type	Options
id	Row Number	blank: 0 % Σ X
first_name	First Name	blank: 0 % Σ X
last_name	Last Name	blank: 0 % Σ X
email	Email Address	blank: 0 % Σ X
phoneNo	Phone	format: ###-###-#### ▼ blank: 0 % Σ X

ADD ANOTHER FIELD

Rows: 100 Format: JSON ☒ array ☒ include null values

Hint: Use "*" in column names to generate nested json objects, brackets to generate arrays. [More information...](#)

Go Run Terminal Help activity2sir.js - week2 - Visual Studio Code

JS warmup.js JS route.js JS activity2.js JS activity2sir.js JS activity1a.js JS activ...

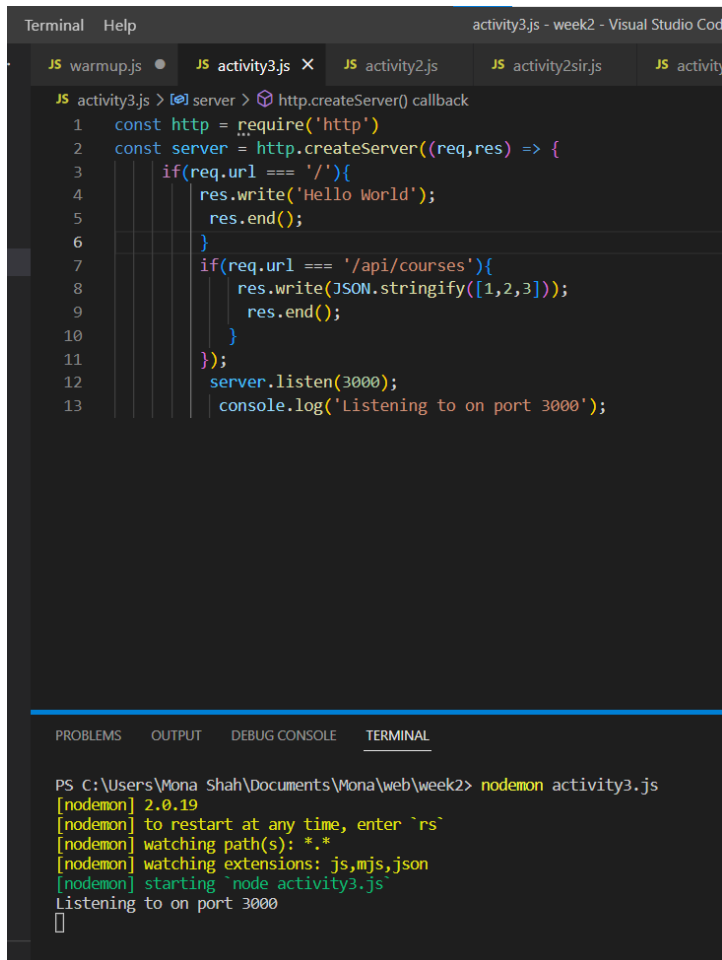
```
JS activity2sir.js > ...
1  const http = require('http');
2
3  const hostname = '127.0.0.1';
4
5  const port = 3000;
6
7
8  const server = http.createServer((req, res) => {
9
10   res.statusCode = 200;
11
12   res.setHeader('Content-Type', 'application/json');
13
14   var fs = require("fs");
15   fs.readFile('mydataset.json', function (err,data) {
16     if (err) {
17       console.error(err);
18       return;
19     }
20     res.end(data);
21   });
22 });
23
24 server.listen(port, hostname, function() {
25
26   console.log(`Server running at http://${hostname}:${port}/`);
27
28 });
```

```
Documentation for V. x | Content x | File x | Scaling and Multi-thr. x | nodemon - npm x | Mockaroo - Random x | 127.0.0.1:3000 x
← → 127.0.0.1:3000
Google New folder confront meaning ...

[{"id":1,"first_name":"Rosella","last_name":"Wilcocks","email":"mwilcocks@varod.ru","phoneNo":"517-178-9698"},
{"id":2,"first_name":"Ruddie","last_name":"Collihole","email":"rcollihole@amsung.com","phoneNo":"812-133-2412"},
{"id":3,"first_name":"Robbert","last_name":"Szymonowicz","email":"rszymonowicz28@is.gd","phoneNo":"153-824-9327"},
{"id":4,"first_name":"Raddy","last_name":"Cheshire","email":"rcheshire3@furl.net","phoneNo":"829-191-5834"},
{"id":5,"first_name":"Rosabella","last_name":"Harber","email":"rharber@usa.gov","phoneNo":"583-829-8285"},
{"id":6,"first_name":"Keith","last_name":"Polye","email":"kpolye5@freewebs.com","phoneNo":"824-965-4586"},
{"id":7,"first_name":"Shauna","last_name":"Macleillage","email":"smacnellege@zdned.com","phoneNo":"305-101-6830"},
{"id":8,"first_name":"Edi","last_name":"Twinning","email":"etwining7@va.gov","phoneNo":"991-927-5875"},
{"id":9,"first_name":"Lorne","last_name":"Ollier","email":"lollier@bapy.ca","phoneNo":"761-419-8612"},
{"id":10,"first_name":"Peirce","last_name":"Cutress","email":"pcutress9@cyberchimps.com","phoneNo":"376-579-8218"},
{"id":11,"first_name":"Kippard","last_name":"Purves","email":"kpurvesa@tuttocitta.it","phoneNo":"723-623-7821"},
{"id":12,"first_name":"Nobert","last_name":"Lyngsted","email":"hlyngsted@webmd.com","phoneNo":"380-441-9133"},
{"id":13,"first_name":"Becky","last_name":"Adamovsky","email":"badamovsky@ezinearticles.com","phoneNo":"531-586-6917"},
{"id":14,"first_name":"Bruce","last_name":"Desorts","email":"bdesorts@joomla.org","phoneNo":"251-471-7837"},
{"id":15,"first_name":"Liva","last_name":"Radband","email":"lradbande@wordpress.org","phoneNo":"385-235-2154"},
{"id":16,"first_name":"Kayley","last_name":"Roore","email":"kroore@lbu.com","phoneNo":"553-954-8933"},
{"id":17,"first_name":"Donnie","last_name":"BURNIN","email":"dburning@house.gov","phoneNo":"392-884-3524"},
{"id":18,"first_name":"Jervilee","last_name":"Harsent","email":"jharsent@instagram.com","phoneNo":"787-971-8415"},
{"id":19,"first_name":"Nealon","last_name":"Decourcy","email":"ndecourcy@webbeden.co.uk","phoneNo":"761-858-9898"},
{"id":20,"first_name":"Chaddie","last_name":"Treske","email":"ctreske3@webs.com","phoneNo":"824-639-1897"},
{"id":21,"first_name":"Margalo","last_name":"Neilands","email":"mneilands@eventbrite.com","phoneNo":"972-287-8936"},
{"id":22,"first_name":"Maryann","last_name":"Skithe","email":"estithe@google.fr","phoneNo":"735-713-0723"},
{"id":23,"first_name":"Franklyn","last_name":"Campall","email":"fcampall@uconn.com","phoneNo":"562-200-9448"},
{"id":24,"first_name":"Lev","last_name":"Strank","email":"lstrank@jalum.net","phoneNo":"716-809-2194"},
{"id":25,"first_name":"Aline","last_name":"Covolini","email":"acovolini@archive.org","phoneNo":"567-782-8822"},
{"id":26,"first_name":"Wirc","last_name":"Belward","email":"vbelward@dispy.com","phoneNo":"989-496-4881"},
{"id":27,"first_name":"Austen","last_name":"Parlatt","email":"aparlatt@google.com.au","phoneNo":"658-417-0872"},
{"id":28,"first_name":"Denis","last_name":"Yancey","email":"dyancey@bizjournals.com","phoneNo":"772-889-7291"},
{"id":29,"first_name":"Rollins","last_name":"Lochven","email":"rlochven@indiatimes.com","phoneNo":"871-472-5916"},
{"id":30,"first_name":"Carlene","last_name":"Pengelly","email":"cpengelly@adobe.com","phoneNo":"684-739-2241"},
{"id":31,"first_name":"Cleopatra","last_name":"Mayho","email":"cmayhou@statcounter.com","phoneNo":"816-943-5778"},
{"id":32,"first_name":"Nathanael","last_name":"Fenlon","email":"nfenlon@marketwatch.com","phoneNo":"162-516-9171"},
{"id":33,"first_name":"Archier","last_name":"Rafflex","email":"arafflex@archive.org","phoneNo":"559-419-2980"},
{"id":34,"first_name":"Wanda","last_name":"Slisby","email":"wslisby@mysql.com","phoneNo":"296-962-9717"},
{"id":35,"first_name":"Maryanne","last_name":"Kosnau","email":"mkosnau@vufoo.com","phoneNo":"476-938-7418"},
{"id":36,"first_name":"Stoddard","last_name":"Welband","email":"swelband@liveinternet.ru","phoneNo":"686-924-3926"},
{"id":37,"first_name":"Broddy","last_name":"Deekes","email":"bdeekes10@zdned.com","phoneNo":"702-968-1896"},
{"id":38,"first_name":"Eve","last_name":"Whyyffen","email":"ewhyffen1@patch.com","phoneNo":"915-728-2716"},
{"id":39,"first_name":"Carri","last_name":"Figiovanni","email":"cfigiovanni12@qa.com","phoneNo":"212-665-2231"},
{"id":40,"first_name":"Dorie","last_name":"Simmens","email":"tsimmens13@bdo.org","phoneNo":"699-569-1700"},
{"id":41,"first_name":"Sarina","last_name":"Ruseworth","email":"sruseworth14@scribd.com","phoneNo":"986-290-5113"},
{"id":42,"first_name":"Rasla","last_name":"Shird","email":"rshird15@cloudflare.com","phoneNo":"713-656-9913"},
{"id":43,"first_name":"Marcount","last_name":"Svinglehurst","email":"tsvinglehurst16@nrcf.org","phoneNo":"655-114-8332"},
{"id":44,"first_name":"Delcina","last_name":"Ayton","email":"dayton17@google.co.jp","phoneNo":"675-476-1975"},
{"id":45,"first_name":"Eldon","last_name":"Cristoforo","email":"ecristoforo18@fastcompany.com","phoneNo":"938-582-1811"},
{"id":46,"first_name":"Skipton","last_name":"Daynter","email":"sdaynter19@typepad.com","phoneNo":"580-232-8713"},
{"id":47,"first_name":"","last_name":"","email":"","phoneNo":""}]
```

No, we need to use require for opening a file. In Node JS we need to use the file system module to work with files and therefore to include it we need to use the “require” method.

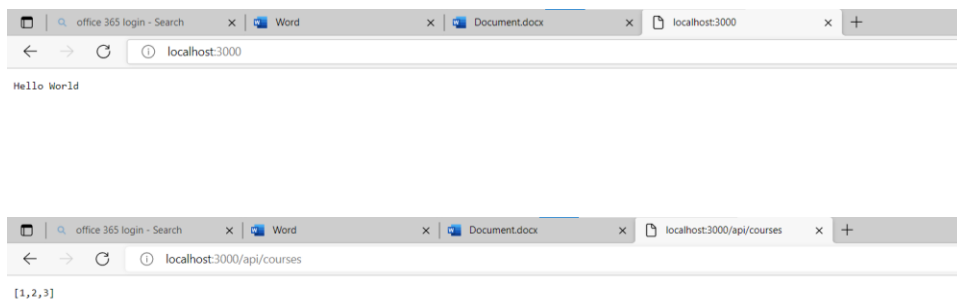
- Activity 3:



The screenshot shows the Visual Studio Code editor with a file named `activity3.js` open. The code defines an HTTP server that responds to two different URLs. The terminal at the bottom shows the command `nodemon activity3.js` being executed, and the output indicates that the server is listening on port 3000.

```
1 const http = require('http')
2 const server = http.createServer((req,res) => {
3     if(req.url === '/'){
4         res.write('Hello World');
5         res.end();
6     }
7     if(req.url === '/api/courses'){
8         res.write(JSON.stringify([1,2,3]));
9         res.end();
10    }
11 });
12 server.listen(3000);
13 console.log('Listening to on port 3000');
```

```
PS C:\Users\Mona Shah\Documents\Mona\Web\week2> nodemon activity3.js
[nodemon] 2.0.19
[nodemon] to restart at any time, enter `rs`
[nodemon] watching path(s): *.*
[nodemon] watching extensions: js,mjs,json
[nodemon] starting `node activity3.js`
Listening to on port 3000
```



The following program checks that if the request url is only the localhost and port then write "hello world" to response. If request url has `'/api/courses'` appended to it, then write the array in response by converting it to simple string.

