

Time Server Node.js

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20011

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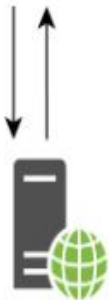
FEATURES



Client



 Google Cloud

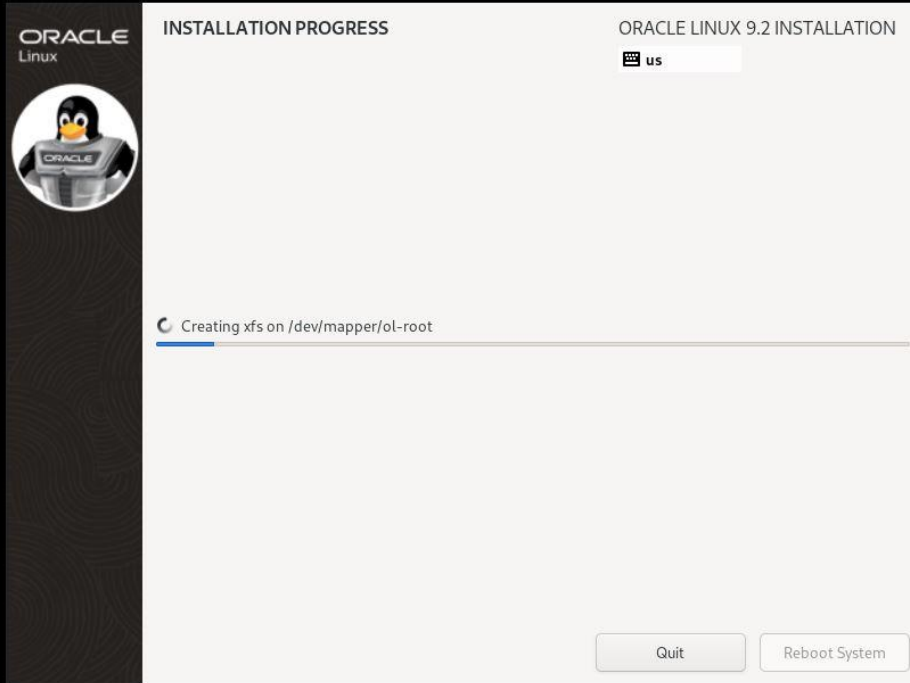


Node.js Server

EXPECTATIONS

- ❖ Installation of VM
- ❖ Installation of nodejs
- ❖ Installation of npm
- ❖ Create code in Texteditor
- ❖ Starting the server
- ❖ Results

DELIVERABLES



Installation of VM

```
[ OK ] Started Show Plymouth Boot Screen.
[ OK ] Started Forward Password R.S. to Plymouth Directory Watch.
[ OK ] Reached target Local Encrypted Volumes.
[ OK ] Reached target Path Units.
[ OK ] Started cancel waiting for multipath siblings of mme0n1.
[ OK ] Finished Wait for udev To Complete Device Initialization.
        Starting Device-Mapper Multipath Device Controller...
[ OK ] Started Device-Mapper Multipath Device Controller.
[ OK ] Reached target Preparation for Local File Systems.
[ OK ] Reached target Local File Systems.
[ OK ] Reached target System Initialization.
[ OK ] Reached target Basic System.
/dev/sr0: 403a1cd060ee13b5213882d6d3c883f7
Fragment sums: 23abcc8a0f0b5d36f56a2d6b54e876d9e5b4827154323615645f4b7cf383
Fragment count: 20
Supported ISO: no
Press [Esc] to abort check.
Checking: 013.6%
```

Installation of VM

```
temitayoalli@LinuxUbuntu:~$ sudo apt install nodejs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nodejs is already the newest version (12.22.9~dfsg-1ubuntu3.3).
0 upgraded, 0 newly installed, 0 to remove and 538 not upgraded.
temitayoalli@LinuxUbuntu:~$
```

Installation of nodejs

```
temitayoalli@LinuxUbuntu:~$ sudo apt-get install -y nodejs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nodejs is already the newest version (12.22.9~dfsg-1ubuntu3.3).
0 upgraded, 0 newly installed, 0 to remove and 538 not upgraded.
temitayoalli@LinuxUbuntu:~$
```

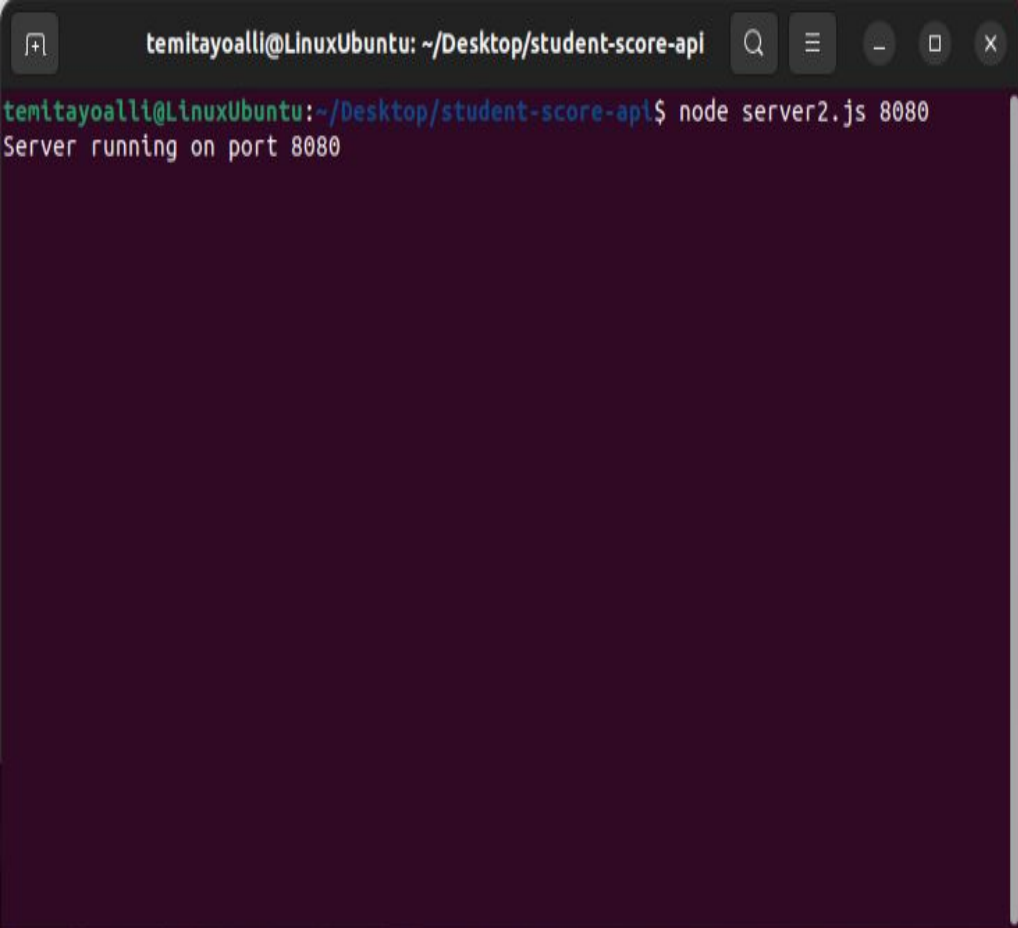
Installation of npm

TEXT EDITOR WITH PROJECT CODES



The image shows a text editor window titled "time_server2.js" located at "~/Desktop". The editor has a menu bar with "Open", "Save", and a hamburger menu icon. The code is written in JavaScript and uses syntax highlighting. It defines a "zeroFill" function, a "now" function that returns a date object with zero-padded fields and a "createdBy" field, and an HTTP server that responds with JSON data from the "now" function. The server listens on port 8080 or the port specified in the command line arguments.

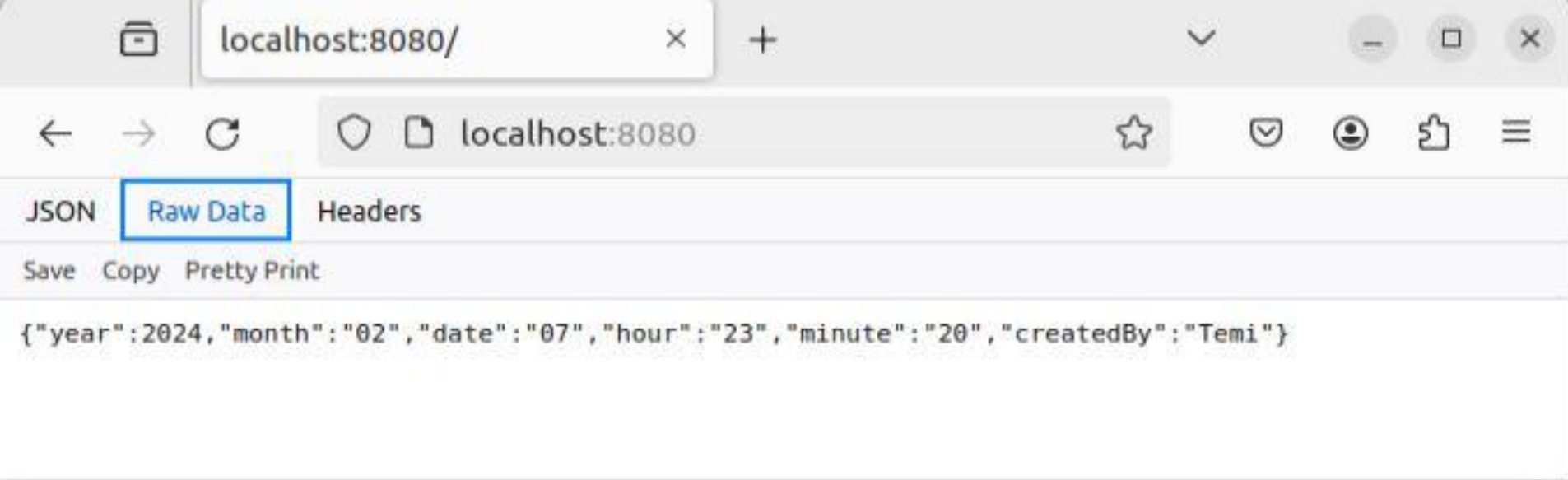
```
1 const http = require('http');
2
3 function zeroFill(i) {
4   return (i < 10 ? '0' : '') + i;
5 }
6
7 function now() {
8   var d = new Date();
9   return {
10    year: d.getFullYear(),
11    month: zeroFill(d.getMonth() + 1),
12    date: zeroFill(d.getDate()),
13    hour: zeroFill(d.getHours()),
14    minute: zeroFill(d.getMinutes()),
15    createdBy: "Temi" // Added field with text "Created by Temi"
16  };
17 }
18
19
20 let server = http.createServer((req, res) => {
21   // Set a response type of application/json for the response
22   res.writeHead(200, {'Content-Type': 'application/json'});
23
24
25   res.end(JSON.stringify(now()));
26 });
27
28
29 const port = Number(process.argv[2]) || 8080;
30 server.listen(port, () => {
31   console.log('Node server running on http://localhost:' + port);
32 });
33
```

A terminal window with a dark background and light green text. The title bar at the top reads "temitayoalli@LinuxUbuntu: ~/Desktop/student-score-api". The terminal shows the command "node server2.js 8080" being entered, followed by the output "Server running on port 8080".

```
temitayoalli@LinuxUbuntu: ~/Desktop/student-score-api$ node server2.js 8080
Server running on port 8080
```

STARTING THE SERVER

- You have to open the terminal from where you created your directory and follow through with other instructions.
 - Run “node time_server2.js 8080”
 - Copy link and access in a browser
-



Results

REFERENCE

- Exercises for Learnyounode. (2021). Sfbu.edu.
https://hc.labnet.sfbu.edu/~henry/npu/classes/javascript/node_js/course/nodeschool/learnyounode/exercise_learnyounode.html
- Node.js on Ubuntu. (2024). Sfbu.edu.
https://hc.labnet.sfbu.edu/~henry/npu/classes/javascript/node_js/slide/ubuntu.html
- Time Server. (2021). Sfbu.edu.
https://hc.labnet.sfbu.edu/~henry/npu/classes/javascript/node_js/course/nodeschool/learnyounode/time_server.html
- Exercises for Ubuntu. (2020). Sfbu.edu.
https://hc.labnet.sfbu.edu/~henry/npu/classes/linux/ubuntu/slide/exercise_ubuntu.html#setup

Conclusion

In conclusion, the deployment of a Node.js time server on a local VM on a windows environment was a success.