

Project: HTTP JSON API Node.js Time Server

**Presented by MANICKAM RAVISEKAR ,
Master of Science in Computer Science,
19599 , Spring 2022**

**Guidance from Dr., Professor Henry Chang
TA : Zizhuo Huang**

**SAN FRANCISCO BAY UNIVERSITY
47671 WestingHouse Dr., Fremont, CA 94539**

ACKNOWLEDGEMENT

One of our Master's Degree Project for HTTP JSON using JavaScript for the time server was an Interesting, made me to learn new things, it is useful in designing web programming.

For deploying this project , I would like to thank Dr. Henry Chang and Zizhuo Huang.

Also, for all I would like to always pray to Almighty for giving us wisdom and power to understand things.

ABSTRACT

The main lesson about this assignment is to study JavaScript programming and deploy using HTTP JSON protocol.

Contents

1. Acknowledgments
2. Abstract
3. JavaScript Installation Details
4. JavaScript Program
5. Project : HTTP JSON API NODE.JS Time Server
6. Time Server running on ubuntu server
7. Request Output
8. Conclusion
9. Reference

JavaScript Installation on Ubuntu

- HTTP JSON API Server have the following pre-requisites
 - Install Node.js on Ubuntu
 - Time Server Program
- Set up Ubuntu
- How to Check your Ubuntu Version
- `$ lsb_release -a`
- Enable the Node Source repository by running the following curl
- `$ curl -sL https://deb.nodesource.com/setup_10.x | sudo -E bash -`
- Install Node.js and npm
- `$ sudo apt install nodejs`
- Verify that the Node.js and npm were successfully
- `$ node --version`
- `$ npm --version`

JavaScript time_server.js

```
// HTTP serves JSON data when it gets request for current time

// receives a GET request to the path '/api/currenttme'.

// sends response as // {"year":2021,"month":09,"date":24,"hour":16,"minute":09}

var http = require('http')

var url = require('url')

// -Expect the request to contain a query the value // For example : /api/currenttme?

// The JSON response : {"year":2021,"month":09,"date":24,"hour":16,"minute":09}"

function currenttme () {

var d = new Date()

return "{Year:" + d.getFullYear() + "    " + "Month : " + (d.getMonth() + 1) + "    " + "Day : " + " " + d.getDate() +

"    " + "Hours : " + d.getHours() + "    " + "Minutes : " + d.getMinutes() + "}"

}

var server = http.createServer(function (req, res) {

    // req.url = /api/currenttme?

    var parsedUrl = url.parse(req.url, true)

    // time = 2013-08-10T12:10:15.474Z

    var result

    // match req.url with the string /api/currenttme

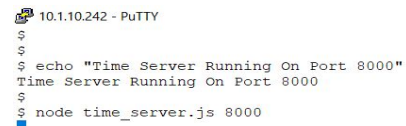
    if (/^\/api\/currenttme/)

        // e.g., of time "2013-08-10T12:10:15.474Z"

        result = currenttme()

    if (result) {
```

Java script time_server.js running on port 8000 of ubuntu server

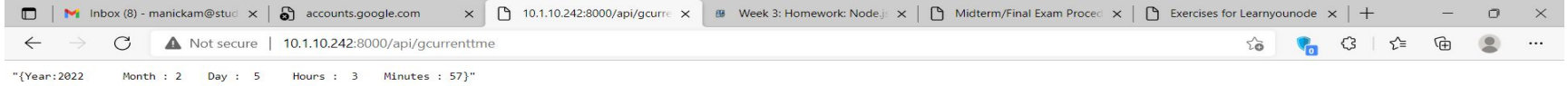


A terminal window titled "10.1.10.242 - PuTTY" displays the following commands and their output:

```
10.1.10.242 - PuTTY
$
$
$ echo "Time Server Running On Port 8000"
Time Server Running On Port 8000
$
$ node time_server.js 8000
```

The terminal window has a standard Ubuntu terminal icon in the top left corner. The title bar shows the IP address and the application name. The command prompt is a dollar sign (\$). The output of the echo command is displayed on the next line. The command to run the JavaScript script is shown on the last line, followed by a blue cursor.

Output of http://10.1.10.242/api/currenttme



Conclusion

Application usage of time server script:

- 1) It can be used as plugin in many applications to get currenttime.
- 2) Also web application server time can be accessed and customized.

Reference

SFBU Course Material