Project: HTTP JSON API Node.js Time Server

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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

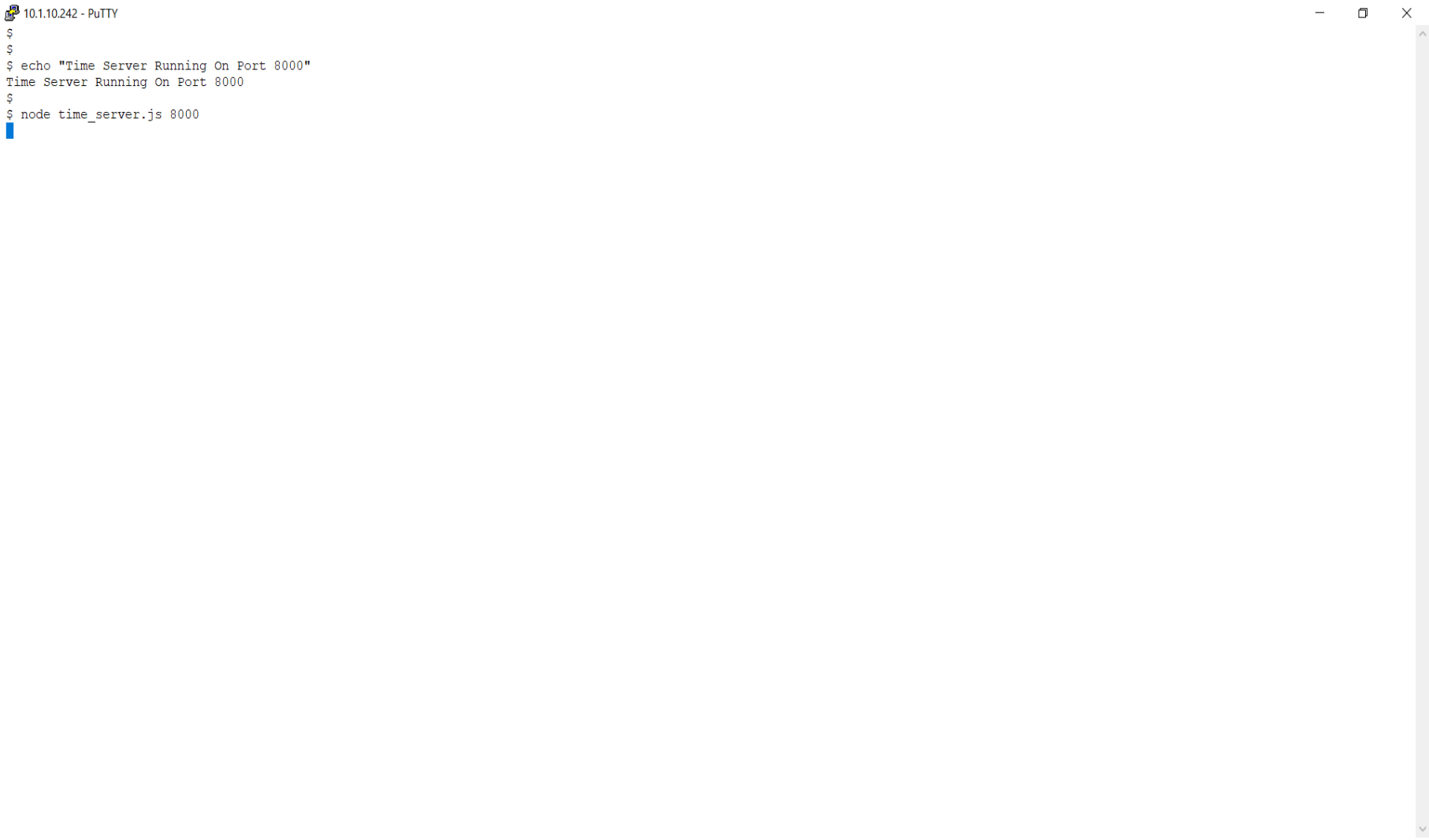
JavaScript Installation on Ubuntu

- 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

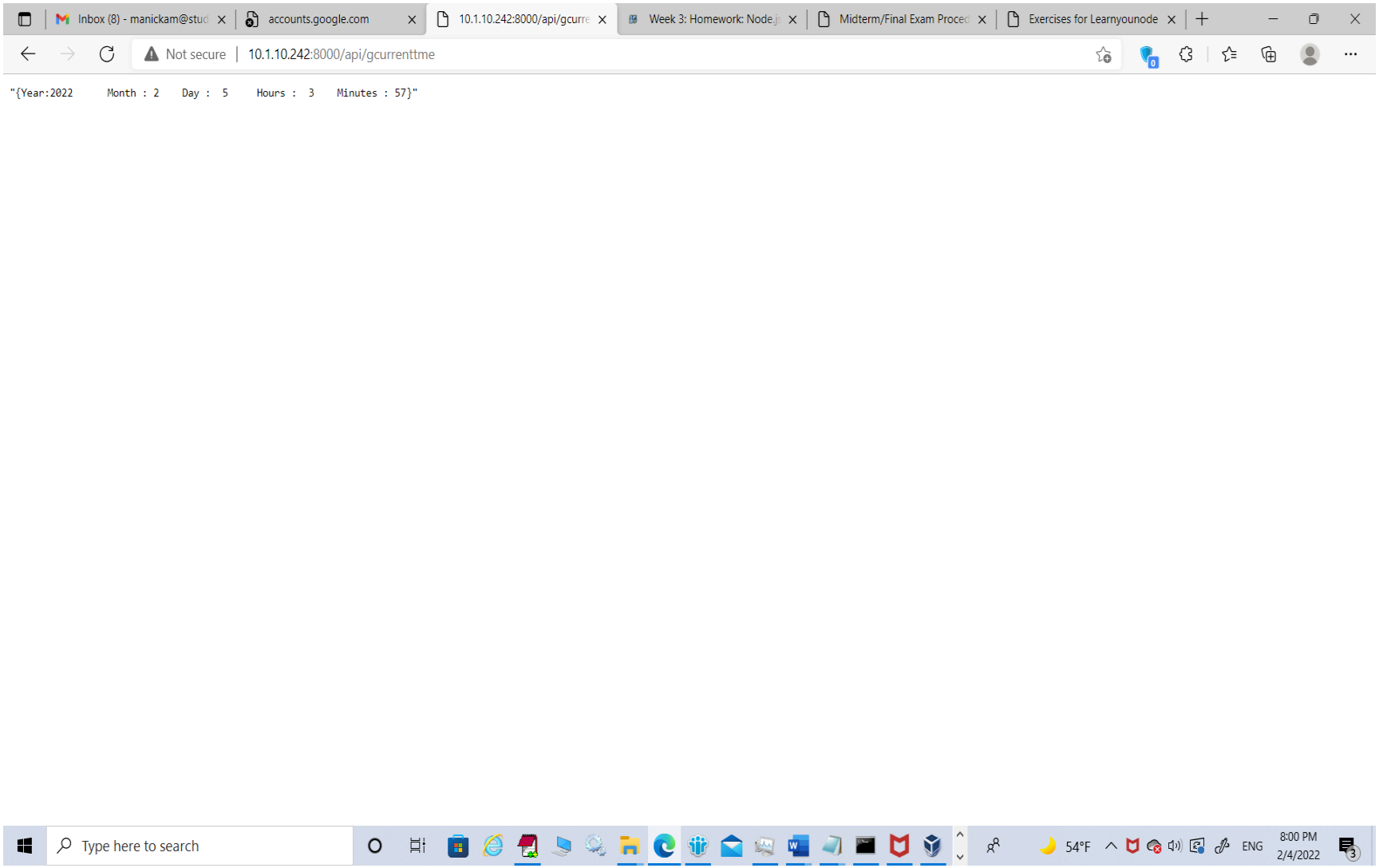
JavaScript time_server.js

```
// 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) {
    res.writeHead(200, { 'Content-Type': 'application/json' })
    res.end(JSON.stringify(result))
  } else {
    res.writeHead(404)
    res.end()
  }
})   server.listen(Number(process.argv[2]))
```

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



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 currentime.

2) Also web application server time can be accessed and customized.

Reference

SFBU Course Material