Week 5: Homework 1: Project: HTTP JSON API + Node.js + Time Server + Parsing Time

Md Shahadat Hossain Khan (19609)

To response by JSON format we need to send header content type as "application/json" and our data need to make as object then we can change JSON object to string by JSON.stringify() method to return that string to client. Here is the complete code -

```
const http = require('http');

function parsetime (time) {
    return {
        year: time.getFullYear(),
        month: time.getMonth(),
        date: time.getDate(),
        hour: time.getHours(),
      minute: time.getMinutes(),
      second: time.getSeconds()
    }
}

function unixtime (time) {
    return { unixtime : time.getTime() }
}

var server = http.createServer(function (req, res) {
    var time = new Date()
    var result
    // match req.url with the string /api/parse_currenttme
    if (/^\/api\/parse_currenttme/.test(req.url))
      // e.g., of time "2013-08-10T12:10:15.474Z"
      result = parsetime(time)
    // match req.url with the string /api/unix_currenttme
    else if (/^\/api\/unix_currenttme/.test(req.url))
      result = unixtime(time)
    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]));
```
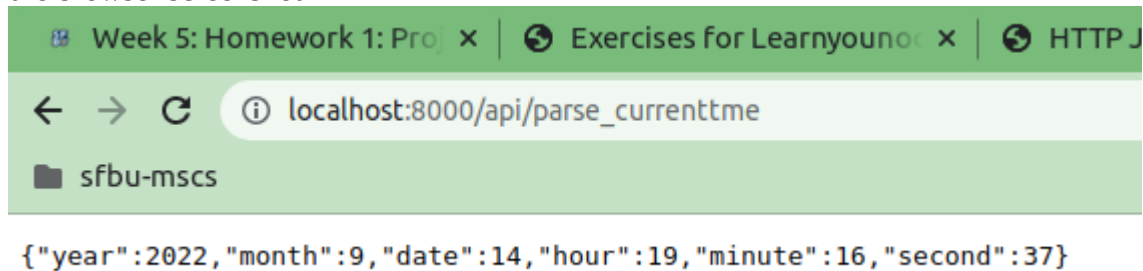
I'm not showing how to install node as it already explain in previous homework. Here we need to save above code into any file then apply following command to execute our JSON powered time server -

```
$ node time-server.js 8000
```

Please note, we run our server in port 8000. So we can access our server with following URL through any standard locally installed browser

```
http://localhost:8000/api/parse_currenttme
http://localhost:8000/api/unix_currenttme
```

Here is the browser screenshot -


```
{"year":2022,"month":9,"date":14,"hour":19,"minute":16,"second":37}
```

and …


```
{"unixtime":1665800249205}
```