Cs571_cloud_computing_infrastructure

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1. Create file named jason_api_server.js

```
// Write an HTTP server that serves JSON data when it
// receives a GET request to the path '/api/parsetime'.
//
/////////////////////////////////////////////////////
var http = require('http')
var url = require('url')

// - Expect the request to contain a query
//   string with a key 'iso' and an ISO-format time as
//   the value. For example
//     /api/parsetime?iso=2013-08-10T12:10:15.474Z
// - The JSON response should contain only 'hour', 'minute'
//   and 'second' properties. For example:
//
//    {
//      "hour": 14,
//      "minute": 23,
```

```
//      "second": 15
//    }
//
function parsetime (time) {
  return {
    hour: time.getHours(),
    minute: time.getMinutes(),
    second: time.getSeconds()
  }
}

// Add second endpoint for the path '/api/unixtime' which
// accepts the same query string but returns UNIX epoch
// time under the property 'unixtime'. For example:
//
//    { "unixtime": 1376136615474 }
function unixtime (time) {
  return { unixtime : time.getTime() }
}

var server = http.createServer(function  (req, res) {
  // req.url = /api/parsetime?iso=2013-08-10T12:10:15.474Z
```

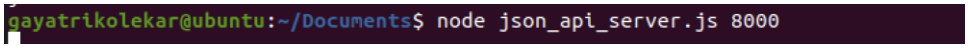
```
//       or
// req.url = /api/unixtime?iso=2013-08-10T12:10:15.474Z
var parsedUrl = url.parse(req.url, true)

// time = 2013-08-10T12:10:15.474Z
var time = new Date(parsedUrl.query.iso)
var result

// match req.url with the string /api/parsetime
if (/^\/api\/parsetime/.test(req.url))
  // e.g., of time "2013-08-10T12:10:15.474Z"
  result = parsetime(time)
// match req.url with the string /api/unixtime
else if (/^\/api\/unixtime/.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]))

2. Open terminal and make sure you are in right directory.

Step 1: on the server

$ node jason_api_server.js 8000

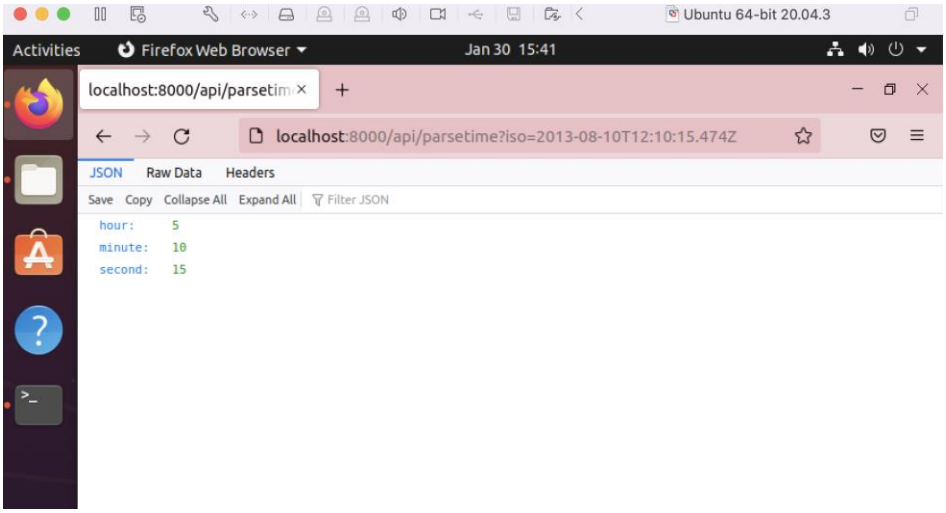


Step 2: on the client browser

http://localhost:8000/api/parsetime?iso=2013-08-10T12:10:15.474z

The browser displays

{"hour":5,"minute":10,"second":15}



Step 3: on the client browser

http://localhost:8000/api/parsetime?iso=2013-08-10T12:10:15.474z

The browser displays

{“unixtime”:1376136615474}