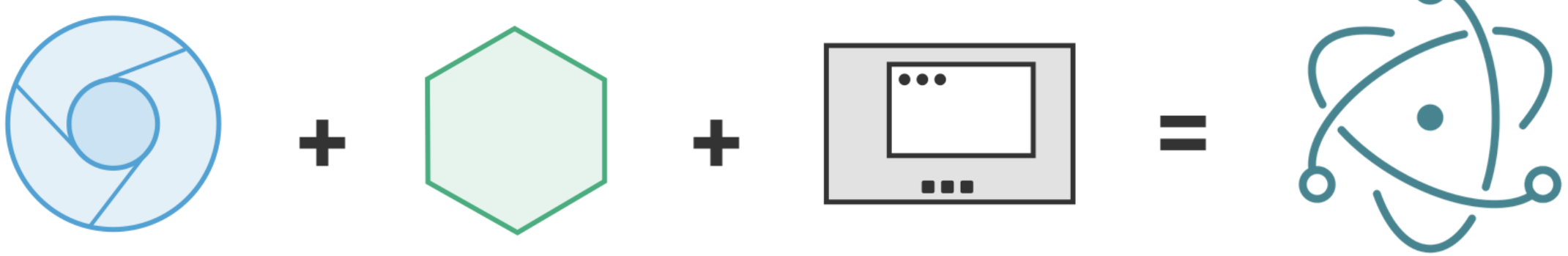
ELECTRON

@codebytere

What is Electron?

Electron is a library you can use to build desktop applications with JavaScript, HTML and CSS. These applications can be packaged to run on Mac, Windows and Linux computers as well as be placed in the Mac and Windows app stores.



Chromium
for making
web pages

Node.js
for filesystems
and networks

Native APIs
for three
systems

ELECTRON

Caste
Live coding in browse using text editor
Münster
Berlin
#geohipster
mapping the world one organic vertex at a time
Heilbronn
Magdeburg
%>%
Ceci n'est pas un pipe
01011001
01101111
opendata sicilia
CAMP JS
geo
geoblacklight.org
thepoisotlab
bionode.io
Zenlog
Wuppertal
Chemnitz
Rhus
.club
NODESCHOOL
Köln
Bonn
standard JS
ROpenSci
Frankfurt
LooWID
talk.openmrs.org
JS
Interledger
JS
CODE FOR SCIENCE
METAMASK
Gulp
JS
NODESCHOOL
pdxnode
for German
MOVE SLOW AND MAKE THINGS
RUBYFORGOOD
Arlington Ruby
NODESCHOOL
IPAS
WRITE code SAVE LIVES

Main Process

main.js

You get:

- Node.js APIs
- Electron **main process modules**

Common tasks:

- Create Renderer Processes
- Call native elements
- Start and quit app

Renderer Process

`index.html`

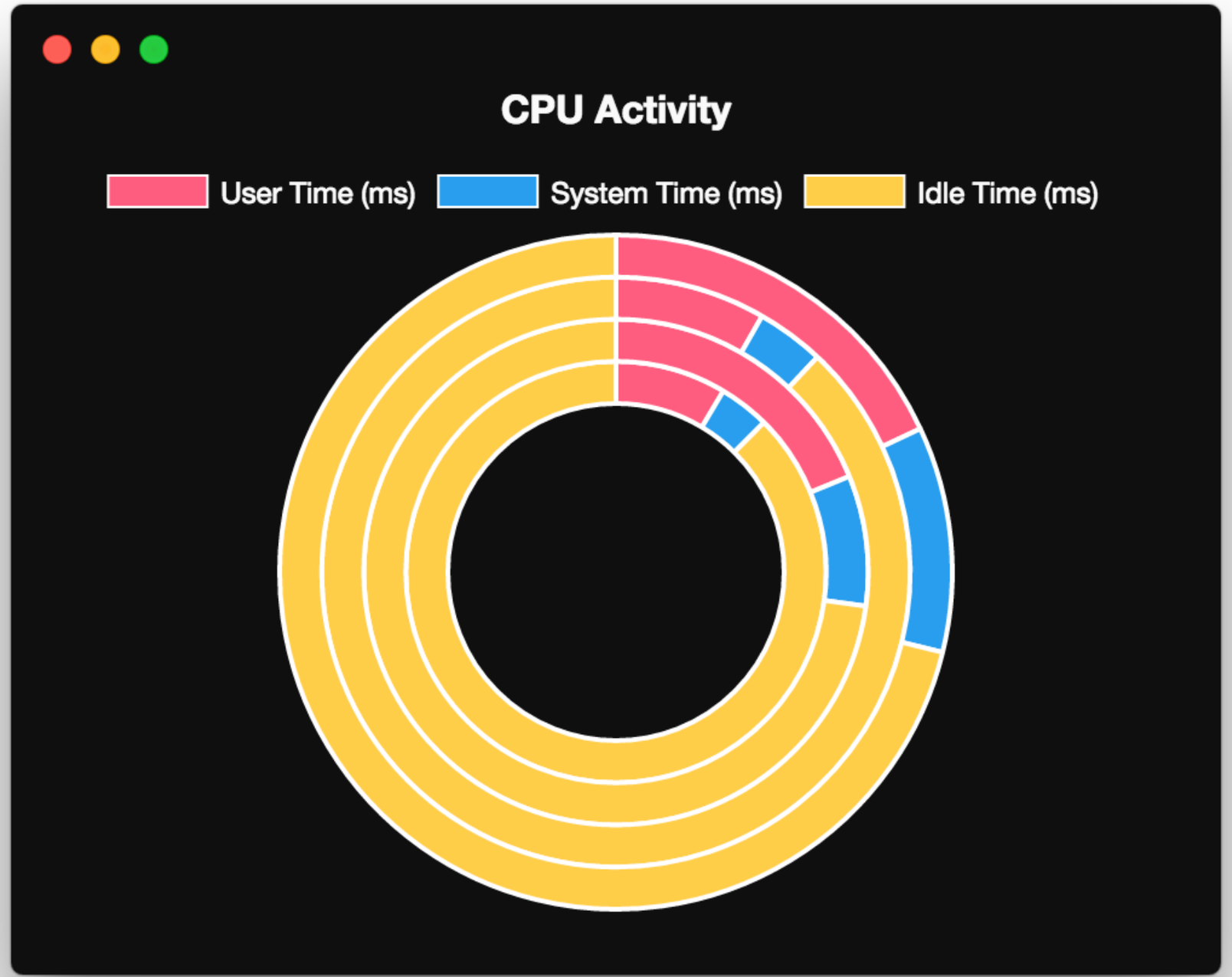
You get:

- Node.js APIs
- DOM APIs
- Electron **renderer process modules**

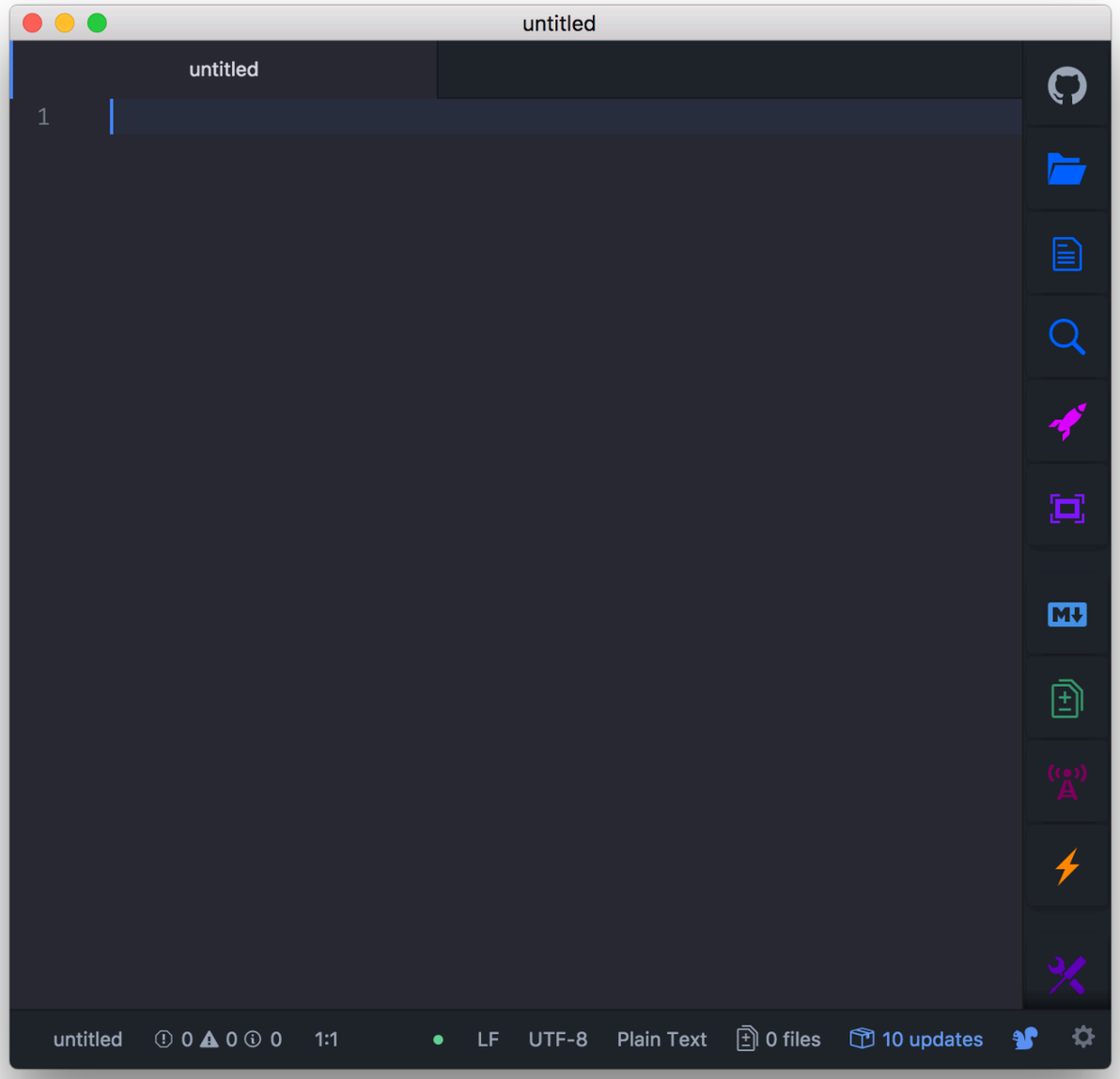
Common tasks:

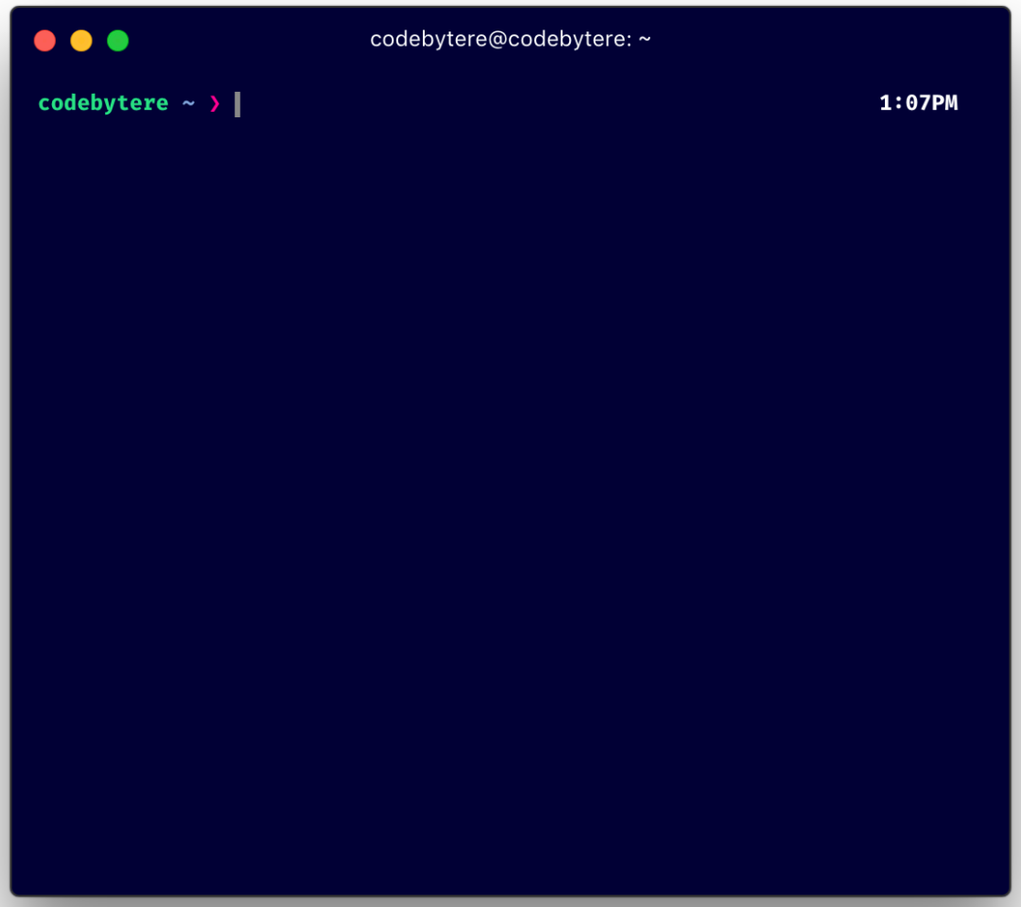
- Design your page with HTML & CSS
- JavaScript page interactions

Activity Monitor

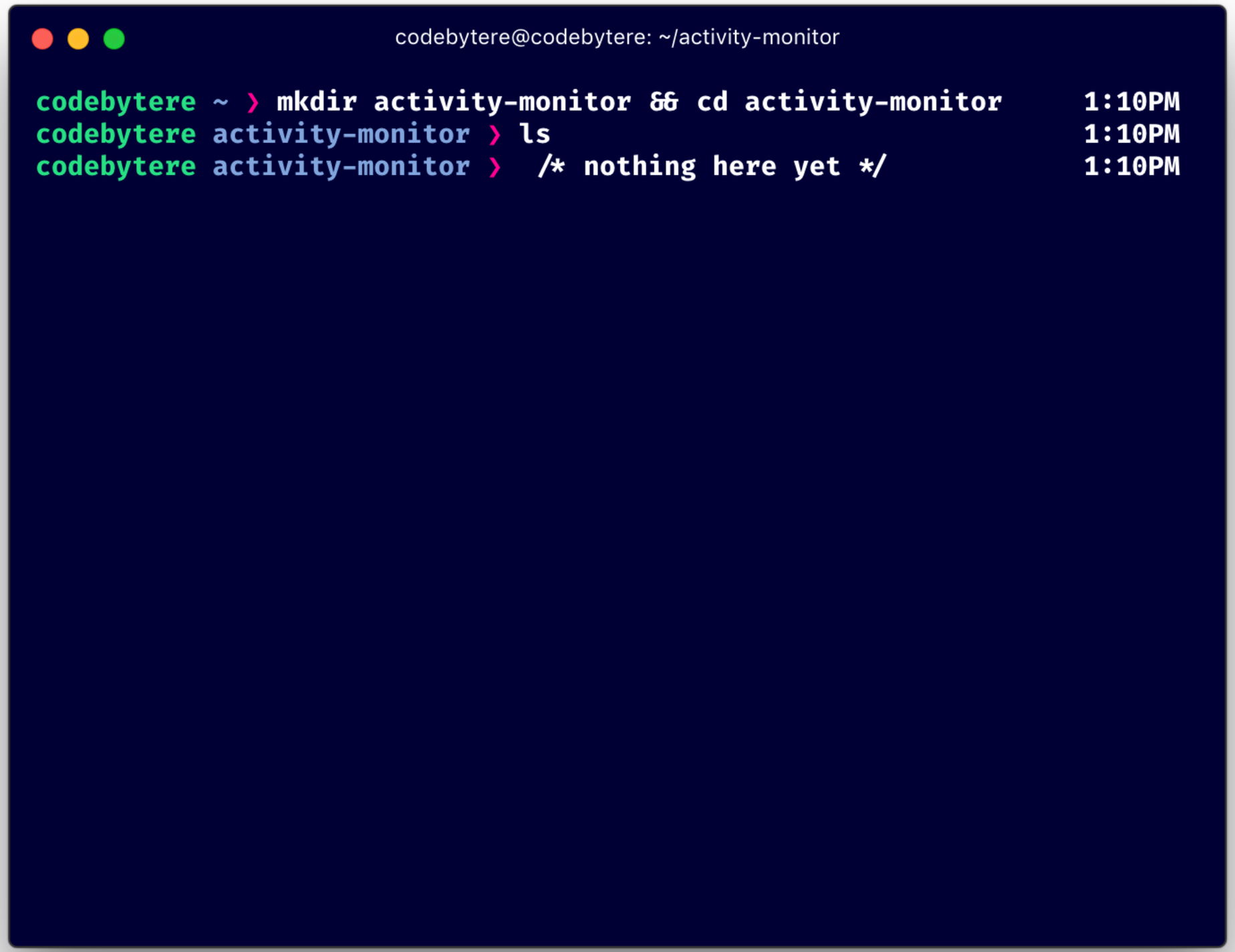


Prerequisites

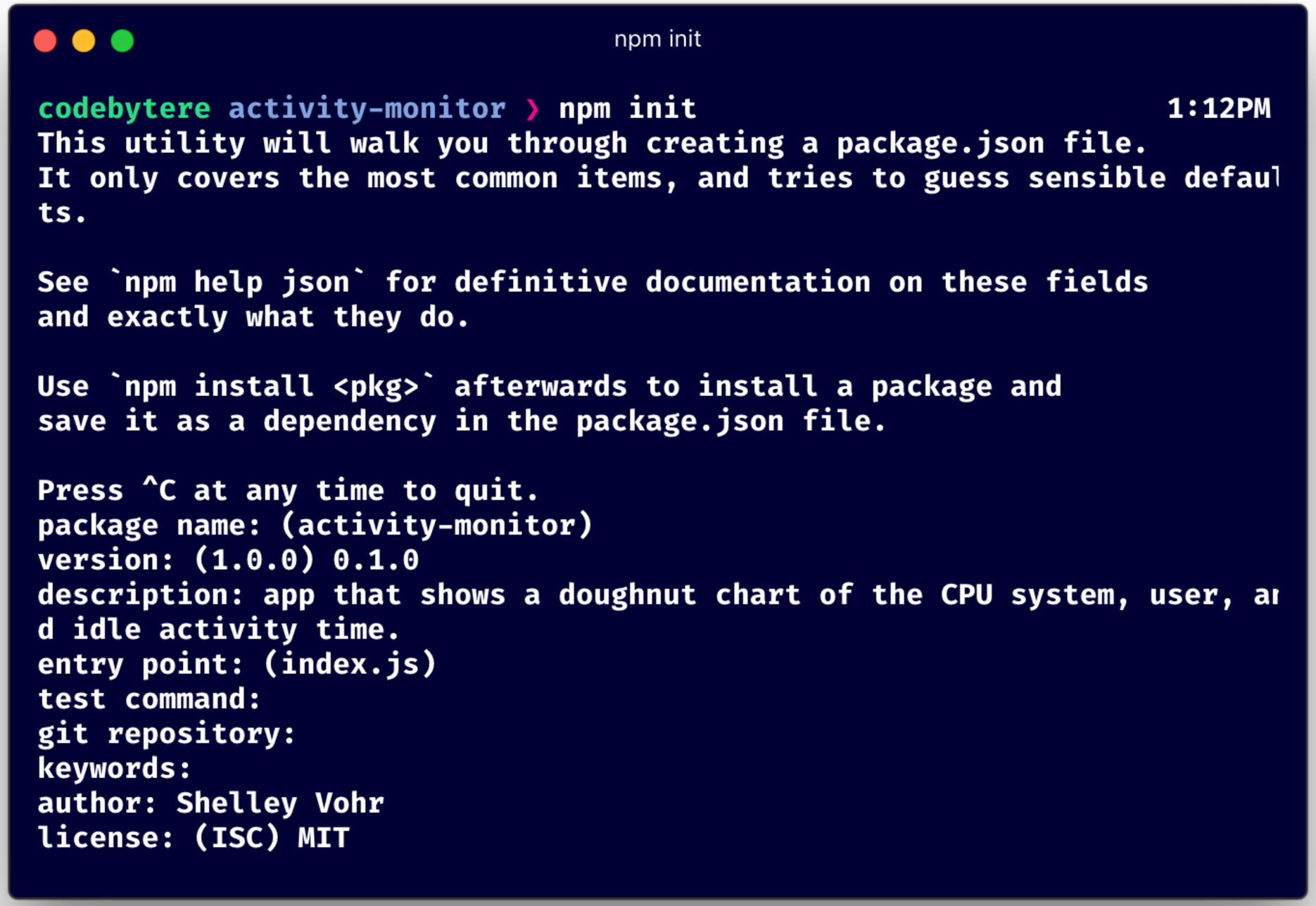




Creating the Directory



Creating package.json



Installing Electron

codebytere@codebytere: ~/activity-monitor

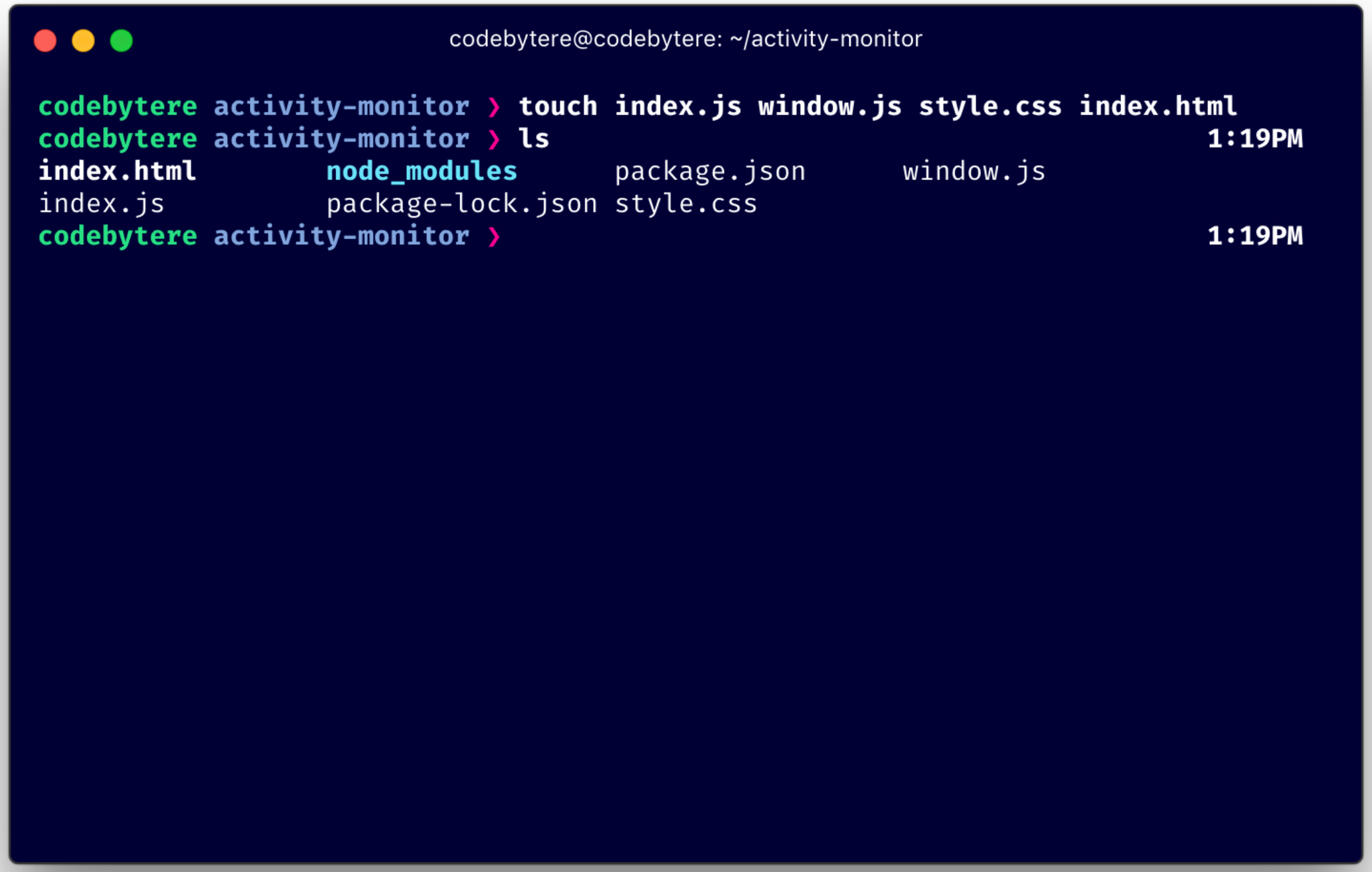
```
codebytere activity-monitor ❯ npm i electron --save                1:16PM

> electron@1.7.9 postinstall /Users/codebytere/activity-monitor/node_mo
dules/electron
> node install.js

npm notice created a lockfile as package-lock.json. You should commit t
his file.
npm WARN activity-monitor@0.1.0 No repository field.

+ electron@1.7.9
added 155 packages in 8.96s
codebytere activity-monitor ❯                                      1:17PM
```

Adding Files



Adding The Code

Adding app.js

app.js — ~/Developer/simple-samples/activity-monitor

app.js | window.js | styles.css | index.html

```
1   const {app, BrowserWindow} = require('electron')
2   const path = require('path')
3   const url = require('url')
4
5   let window = null
6
7   // Wait until the app is ready
8   app.once('ready', () => {
9     // Create a new window
10    window = new BrowserWindow({
11      width: 500, // Set the initial width to 500px
12      height: 400, // Set the initial height to 400px
13      titleBarStyle: 'hidden-inset', // set the title bar style
14      backgroundColor: "#111", // set the background color to black
15      show: false // Don't show the window until it's ready
16    })
17
18    // load url into the window
19    window.loadURL(url.format({
20      pathname: path.join(__dirname, 'index.html'),
21      protocol: 'file:',
22      slashes: true
23    }))
24
25    window.once('ready-to-show', () => window.show())
26  })
```

Python app.js 0 0 0 15:52 LF UTF-8 JavaScript master 2 files 10 updates

Adding window.js

window.js — ~/Developer/simple-samples/activity-monitor

app.js | window.js | styles.css | index.html

```
$(() => {
  const os = require('os')

  const datasets = []
  const cpus = os.cpus()

  for (let i = 0; i < cpus.length; i++) {
    const cpu = cpus[i]
    const cpuData = {
      data: [
        cpu.times.user,
        cpu.times.sys,
        cpu.times.idle,
      ],
      backgroundColor: [
        'rgba(255, 99, 132, 1)',
        'rgba(54, 162, 235, 1)',
        'rgba(255, 206, 86, 1)'
      ]
    }
    datasets.push(cpuData)
  }
```

Python window.js 0 0 0 50:5 LF UTF-8 JavaScript master 3 files 10 updates

Adding The Chart

window.js — ~/Developer/simple-samples/activity-monitor

app.js | window.js | styles.css | index.html

```
var chart = new Chart($('.chart'), {
  type: 'doughnut',
  data: {
    labels: [
      'User Time (ms)',
      'System Time (ms)',
      'Idle Time (ms)'
    ],
    datasets: datasets
  },
  options: {
    maintainAspectRatio: false,
    title: {
      display: true,
      text: 'CPU Activity',
      fontColor: 'rgb(250, 250, 250)',
      fontSize: 16
    },
    legend: {
      display: true,
      labels: {
        fontColor: 'rgb(250, 250, 250)',
        fontSize: 12
      }
    }
  }
})
})
```

Python | window.js | 0 0 0 | 29:2 | LF | UTF-8 | JavaScript | master | 3 files | 10 updates

Adding Styles

styles.css — ~/Developer/simple-samples/activity-monitor

app.js | window.js | styles.css | index.html

```
1   html, body, .container-fluid {
2     height: 100%;
3     background-color: #111;
4   }
5
6   html {
7     -webkit-app-region: drag;
8   }
9
10  .container-fluid {
11    padding: 25px;
12  }
13
```

Python styles.css 0 0 0 1:1 LF UTF-8 CSS master 4 files 10 updates

Adding index.html

index.html — ~/Developer/simple-samples/activity-monitor

app.js | window.js | styles.css | index.html

```
<!DOCTYPE html>
<html>

<head>
  <meta charset="utf-8">
  <title>Activity Monitor</title>
  <!-- Stylesheets -->
  <link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/css/bootstr
  <link rel="stylesheet" href="./styles.css">
  <!-- Scripts -->
  <script> delete module.exports </script>
  <script src="https://code.jquery.com/jquery-3.2.1.js"></script>
  <script src="https://maxcdn.bootstrapcdn.com/bootstrap/3.3.7/js/bootstrap.min.js"></scri
  <script src="https://cdnjs.cloudflare.com/ajax/libs/Chart.js/2.1.4/Chart.bundle.min.js">
  <script src="./window.js"></script>
</head>

<body>
  <div class="container-fluid">
    <canvas class="chart"></canvas>
  </div>
</body>

</html>
```

Python index.html 0 0 0 18:7 LF UTF-8 HTML master 4 files 10 updates

Thank You!