Web安全作业一 JSONP

1. 配置hosts文件

```
# For Web Security Lab
10.0.0.2 web.cybersecurity.seu.edu
10.0.0.3 time.cybersecurity.seu.edu
10.0.0.4 jsonp.cybersecurity.seu.edu
```

2. time.cybersecurity.seu.edu 接口实现

2.1 /api/date 接口实现

```
app.get("/api/date", (req, res) => {
  res.send({ date: Date.now() })
})
```

2.2 /api/datecors 接口实现

```
app.all("/api/datecors", (req, res) => {
  res.header("Access-Control-Allow-Origin", "http://web.cybersecurity.seu.edu")
  res.header("Access-Control-Allow-Methods", "GET")
  res.send({ date: Date.now() })
```

2.3 /api/jsonpdate 接口实现

```
app.get("/api/jsonpdate", (req, res) => {
  let jsonp_command = `${req.query.callback}(${JSON.stringify(Date.now())})`
  res.send(jsonp_command)
})
```

3. <u>web.cybersecurity.seu.edu</u> 实现

3.1 index.html
（关于按钮样式部分代码省略）

```html
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <title>Web</title>
</head>

<body>
  <script>
   function onClickBtn(url) {
     let req = new XMLHttpRequest()
     req.open("GET", url, true)
     req.onreadystatechange = () => {
      if (req.readyState === 4 && req.status === 200) {
        let data = req.responseText
        alert(data)
      }
     }
     req.send()
   }
  </script>
  <h1>hello</h1>
  <button class="button" style="vertical-align:middle"
   onclick="onClickBtn('http://time.cybersecurity.seu.edu/api/date')"><span>call /api/date</span></button>
  <button class="button" style="vertical-align:middle"
   onclick="onClickBtn('http://time.cybersecurity.seu.edu/api/datecors')"><span>call /api/datecors</span></button>
</body>
```
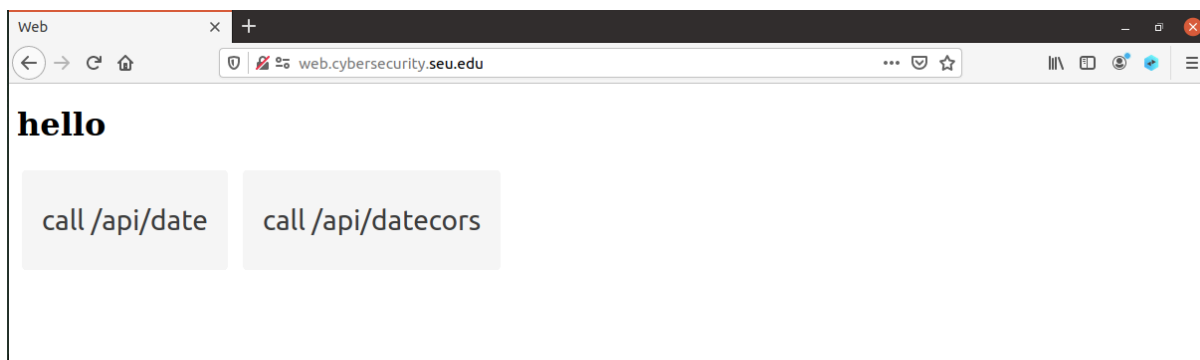
3.2 server.js

```
const express = require("express")
const fs = require("fs")

const app = express()

app.get("/", (req, res) => {
  fs.createReadStream("index.html").pipe(res)
})

app.get("/buttons.css", (req, res) => {
  fs.createReadStream("buttons.css").pipe(res)
})
```

4. time.cybersecurity.seu.edu 实现

4.1 index.html

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <title>Time</title>
</head>

<body>
  <h1>Providing current date...</h1>
</body>
```


Providing current date...

4.2 server.js

```
const express = require("express")
const fs = require("fs")

const app = express()

app.get("/", (req, res) => {
  fs.createReadStream("./index.html").pipe(res)
})

app.get("/api/date", (req, res) => {
  res.send({ date: Date.now() })
})

app.all("/api/datecors", (req, res) => {
  res.header("Access-Control-Allow-Origin", "http://
web.cybersecurity.seu.edu")
  res.header("Access-Control-Allow-Methods", "GET")
  res.send({ date: Date.now() })
})

app.get("/api/jsonpdate", (req, res) => {
  let jsonp_command = `${req.query.callback}(${JSON.stringify(Date.now())})`
  res.send(jsonp_command)
})
```
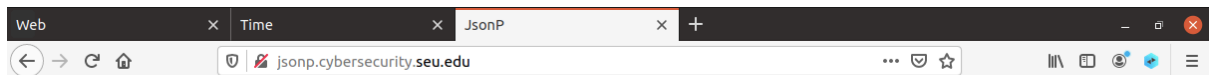
5. jsonp.cybersecurity.seu.edu 实现

5.1 index.html

```html
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8" />
  <title>JsonP</title>
</head>

<body>
  <h1>hello again</h1>
  <script>
    function getDate(data) {
      alert(`{\"date\":${data}}`)
    }
  </script>
  <script src="http://time.cybersecurity.seu.edu/api/jsonpdate?callback=getDate"></script>
</body>
```


5.2 server.js

```js
const express = require("express")
const fs = require("fs")

const app = express()

app.get("/", (req, res) => {
  fs.createReadStream("./index.html").pipe(res)
})

app.listen(80)
```
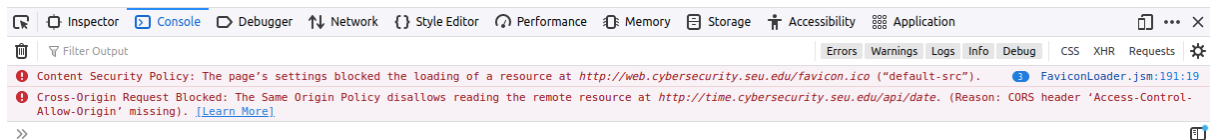
5

6. 实验测试

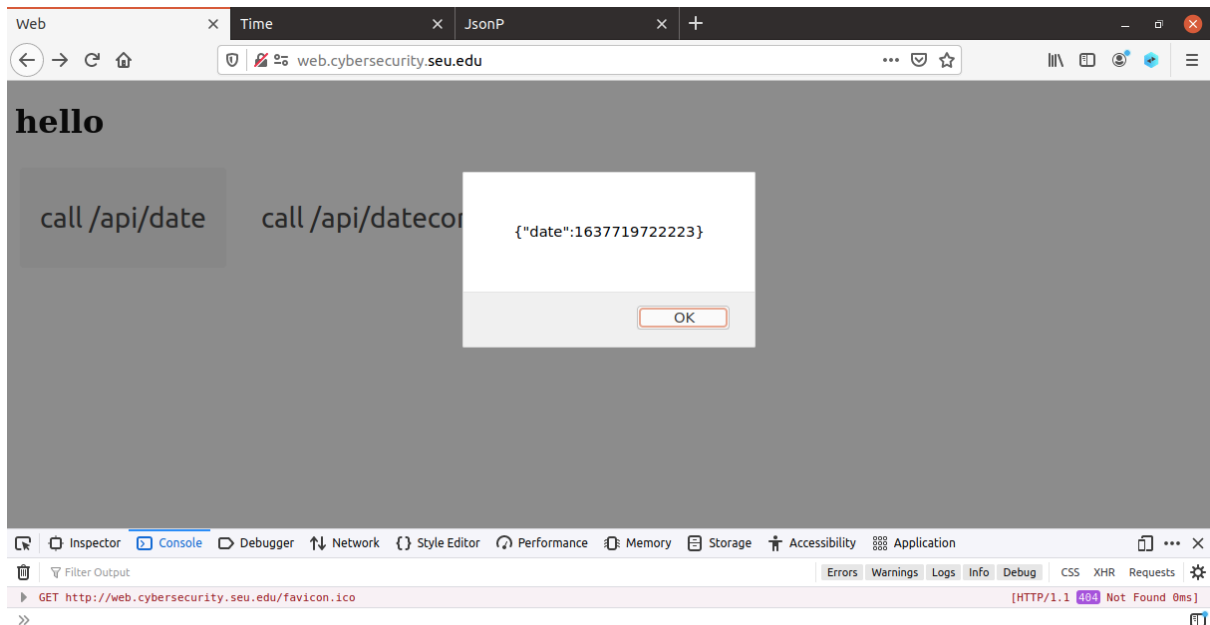## 6.1 在 web.cybersecurity.seu.edu 中读取接口/api/date数据

6.2 在 web.cybersecurity.seu.edu 中读取接口/api/datecors数据

6.3 在jsonp.cybersecurity.seu.edu 中通过回调读取接口/api/date数据