1) The following terminal command creates a key and a certificate signing request in one.

```
openssl req –new –newkey rsa:2048 –nodes –sha256 –out secureSite.csr –keyout secureSite.key
```

2) To self sign the certificate.

```
openssl x509 –req –days 365 –in secureSite.csr –signkey secureSite.key –out secureSite.crt
```

3) Node code

```
var https = require('https');
var fs = require('fs');

var options = {
    key: fs.readFileSync('./secureSite.key'),
    cert: fs.readFileSync('./secureSite.crt')
};

https.createServer(options, function (req, res) {
    res.writeHead(200);
    res.end('Hello world');
}).listen(8000);

//test https://localhost:8000
```