



JÖNKÖPING UNIVERSITY

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WEB APPLICATIONS IN NODE.JS

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WEB APPLICATION IN NODE.JS



The `http` module takes care of the hard parts for us.

WEB APPLICATION IN NODE.JS

```
const http = require('http')
const myServer = http.createServer(function (request, response) {
  // This callback is called each time
  // a new HTTP request is received.
  response.writeHead(200, {"Content-Type": "text/plain"})
  response.end("Here you go.")
})

myServer.listen(80)
```

The diagram illustrates the components of the provided Node.js code. Five purple callout boxes with white text point to specific parts of the code:

- Instance of the class http.Server**: Points to the `http` variable in the first line.
- Headers**: Points to the `Content-Type` property in the `writeHead` call.
- Status code**: Points to the `200` status code in the `writeHead` call.
- Body**: Points to the string `"Here you go."` in the `end` call.
- Port number**: Points to the `80` in the `listen` call.

INSPECTING INCOMING REQUESTS

```
GET /path/to/the-page.html HTTP/1.1
```

```
Host: website.com
```

```
Accept: text/html
```

```
the-body
```

```
const myServer = http.createServer(function(request, response) {  
  const method = request.method // "GET"  
  const uri = request.url // "/path/to/the-page.html"  
  const version = request.httpVersion // "1.1"  
  const headers = request.headers // {host: "website.com", ...}  
})
```

INSPECTING INCOMING REQUESTS

```
GET /path/to/the-page.html HTTP/1.1
```

```
Host: website.com
```

```
Accept: text/html
```

```
the-body
```

```
const myServer = http.createServer(function(request, response) {  
  const bodyParts = []  
  request.on('data', function(chunk) {  
    bodyParts.push(chunk)  
  })  
  request.on('end', function() {  
    const body = Buffer.concat(bodyParts).toString() // "the-body"  
  })  
})
```

CREATING OUTGOING RESPONSES

```
HTTP/1.1 200 OK
Content-Type: text/html
Content-Length: 8

the-body
```

```
const myServer = http.createServer(function(request, response) {
  response.statusCode = 200
  response.statusMessage = 'OK'
  response.setHeader("Content-Type", "text/html")
})
  response.writeHead(200, {"Content-Type", "text/html"})
```

CREATING OUTGOING RESPONSES

```
HTTP/1.1 200 OK
Content-Type: text/html
Content-Length: 8

the-body
```

```
const myServer = http.createServer(function(request, response) {
  response.write("the")
  response.write("-body")
  response.end()
})
```

```
response.end("the-body")
```


PUTTING IT ALL TOGETHER

The server has some resources (data stored in files/database/code).

1. Inspect the incoming HTTP request:
 - URI – Which resource?
 - METHOD – What to do?
2. Do as told.
3. Send back appropriate HTTP response.

EXAMPLE

A web application in Node.js.