

## 6. Working With Dynamic Content And Adding Templating Engines

### \* Chapter 76: Module Introduction



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#### What's In This Module?

Managing Data (without a Database)

Render Dynamic Content in our Views

Understanding Templating Engines



### \* Chapter 77: Sharing Data Across Requests & Users

- 1. update
- ./routes/admin.js
- ./routes/shop.js
- app.js







ShopAdd Product

Title

Book

Book 2

Product

ElementsConsoleNetwork

Filter

XHRJS CSS img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	200	doc...	1.4 KB	
main.css	200	styl...	1.7 KB	
forms.css	200	styl...	599 B	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
mem5YaGs126Mi...	200	font	8.7 KB	
ng-validate.js	200	script	(from disk...	

7 requests | 13.6 KB transferred | Finish: 305 ms | DOMContentLoaded: 157 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluation

Preview return values in the Console without explicitly executing expressions.

ShopAdd Product

## My Products

List of all the products...

ElementsConsoleNetwork

Filter

XHRJS CSS img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	302	text...	193 B	
localhost	200	doc...	1.9 KB	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem5YaGs126Mi...	200	font	8.7 KB	
mem5YaGs126Mi...	200	font	8.6 KB	

8 requests | 22.4 KB transferred | Finish: 261 ms | DOMContentLoaded: 106 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluation

Preview return values in the Console without explicitly executing expressions.

```
1  const path = require('path');
2
3  const express = require('express');
4
5  const rootDir = require('../util/path');
6  const adminData = require('./admin');
7
8  const router = express.Router();
9
10 router.get('/', (req, res) => {
11   console.log('shop.js', adminData.products);
12   res.sendFile(path.join(rootDir, 'views', 'shop.html'));
13 });
14
15 module.exports = router;
```

log(message?: any, ...optionalParams: any[]): void  
Prints to stdout with newline.

```
[
  { title: 'Book' }
]
[nodemon] restarting due to changes...
[nodemon] starting 'node app.js'
shop.js [
  { title: 'Book' }
]
```

- we see something interesting. we see the array with the book inside of it and that console.log statement, where is this actually coming from shop.js file.

```
1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7
8 const app = express();
9
10 const adminData = require('./routes/admin');
11 const shopRoutes = require('./routes/shop');
12
13 app.use(bodyParser.urlencoded({extended: false}));
14 app.use(express.static(path.join(__dirname, 'public')));
15
16 app.use('/admin', adminData.routes);
17 app.use(shopRoutes);
18
19 app.use((req, res, next) => {
20   res.status(404).sendFile(path.join(__dirname, 'views', '404.html'));
21 });
22
23 app.listen(3000);
```

```
1 //./routes/admin.js
2
3 const path = require('path');
4
5 const express = require('express');
6
7 const rootDir = require('../util/path');
```

```

9  const router = express.Router();
10
11  const products = [];
12
13  // /admin/add-product => GET
14  router.get('/add-product', (req, res, next) => {
15    res.sendFile(path.join(rootDir, 'views', 'add-product.html'));
16  });
17
18  // /admin/add-product => POST
19  router.post('/add-product', (req, res, next) => {
20    /**if we change that in other file, it also gives us the update here.
21     *
22     * the problem is that this is data which is inherit to our node server
23     * as it is running and therefore it's shared across all users.
24     * sometimes this is what you may want but very rarely. you will probably never implement
25     this.
26     * you always wanna fetch data for a specific request
27     * and if that happens to be the same data you show for all users that send this request.
28     */
29    products.push({ title: req.body.title });
30    res.redirect('/');
31  });
32
33  exports.routes = router;
34  exports.products = products;

```

```

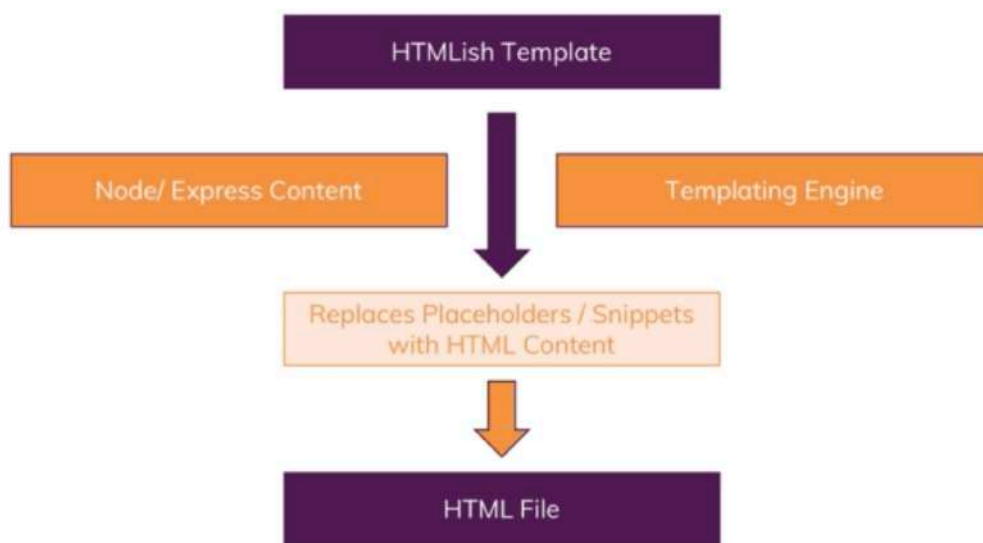
1  //./routes/shop.js
2
3  const path = require('path');
4
5  const express = require('express');
6
7  const rootDir = require('../util/path');
8  const adminData = require('../admin');
9
10  const router = express.Router();
11
12  router.get('/', (req, res, next) => {
13    console.log('shop.js', adminData.products);
14    res.sendFile(path.join(rootDir, 'views', 'shop.html'));
15  });
16
17  module.exports = router;
18

```

## \* Chapter 78: Templating Engines - An Overview



## Templating Engines



- Putting dynamic content into our html pages, we would use something called templating engines
  - templating engines work like this.
  - we got HTML-ish template which means you typically write some code, files that contains a lot of HTML, your HTML Structure and Markup, your style and javascript imports, all of that is typically included but you have some blanks in there, some placeholders.
  - and then you have your node express content in your app like our dummy array, our products array we are currently using.
  - and you have got a templating engine which understands a certain syntax for which it scans your HTML-ish template and where it then replaces placeholders or certain snippets depending on the engine you are using with real HTML content. this HTML content, it uses there, is generated on the fly, on the server by templating engine, taking that dynamic content into account.
  - for example, you could output unordered list with list items for the data you have in your node express app with the help of the templating engine
  - and in the end, the result will be dynamically, on the fly generated HTML file which is then sent back to your users. So the users never see the template, placeholders, all that happens on the server. they just get a normal html page. but it's not hardcoded by you as it currently is in our project, but instead, it's generated on the fly.
- 

## Available Templating Engines

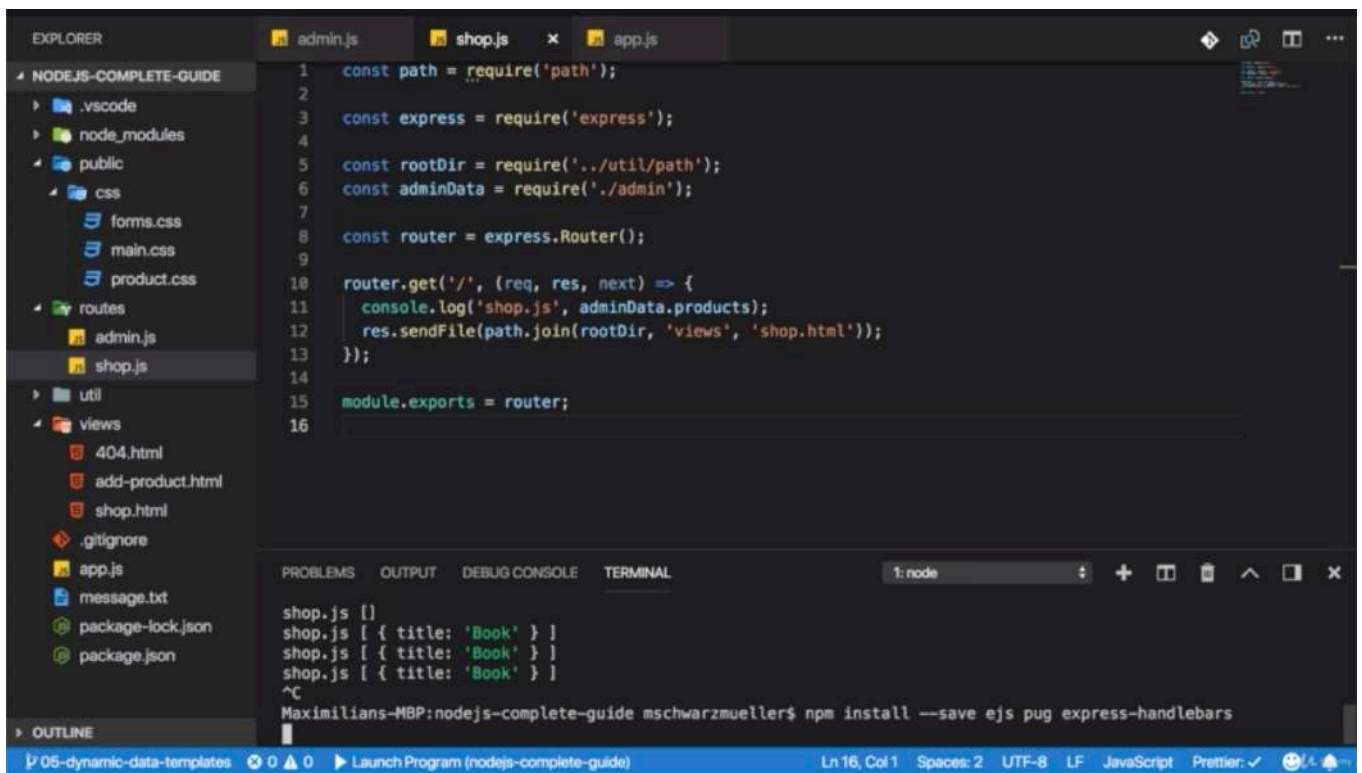
EJS	Pug (Jade)	Handlebars
<code>&lt;p&gt;&lt;%= name %&gt;&lt;/p&gt;</code>	<code>p #{name}</code>	<code>&lt;p&gt;{{ name }}&lt;/p&gt;</code>
Use normal HTML and plain JavaScript in your templates	Use minimal HTML and custom template language	Use normal HTML and custom template language

- now we got a couple of different available templating engines and you get even more options.
- there 3 are free templating engines that use a different syntax and different set of features, different philosophies that you can use to well create these templates, inject your dynamic content and get HTML files out of them.

## \* Chapter 79: Installing & Implementing Pug

1. update
  - app.js
  - ./views/shop.pug
  - ./views/shop.html
  - ./routes/shop.js





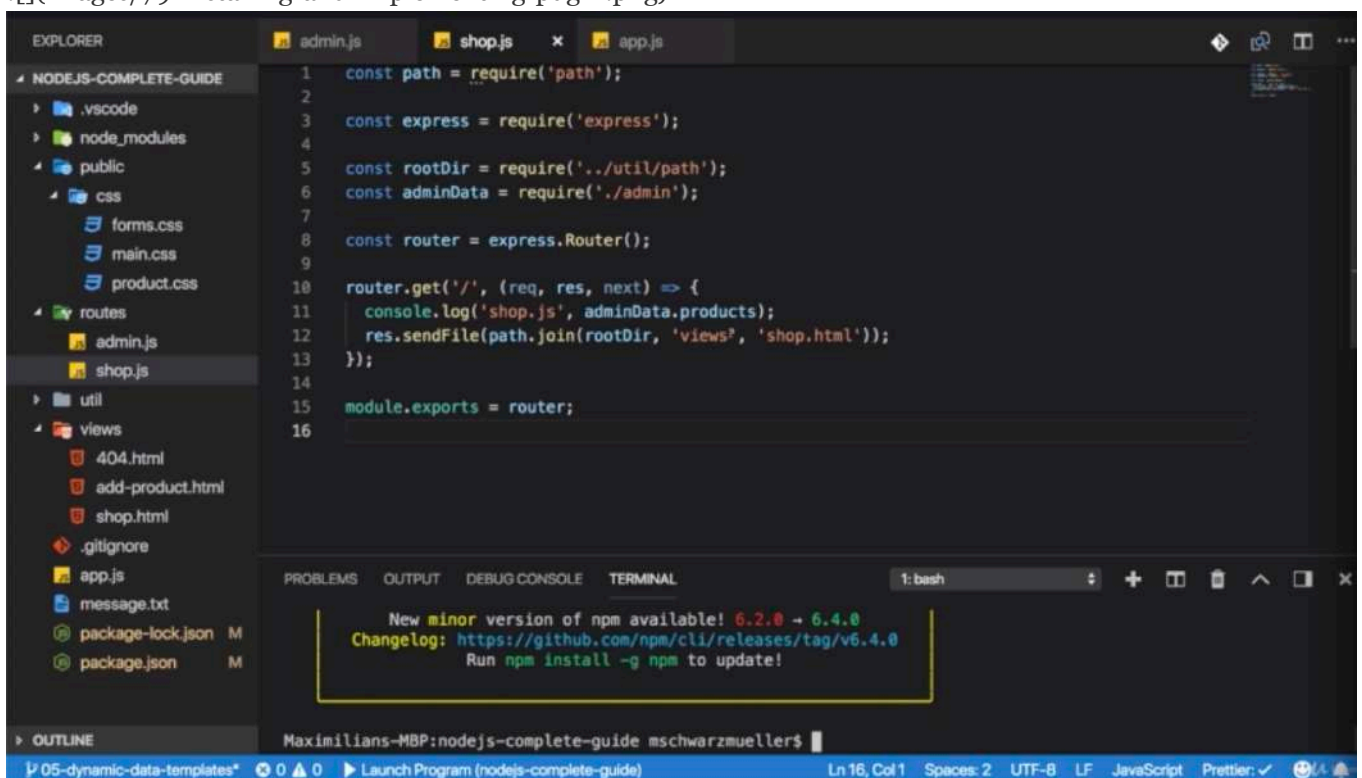
```
1  const path = require('path');
2
3  const express = require('express');
4
5  const rootDir = require('../util/path');
6  const adminData = require('./admin');
7
8  const router = express.Router();
9
10 router.get('/', (req, res, next) => {
11   console.log('shop.js', adminData.products);
12   res.sendFile(path.join(rootDir, 'views', 'shop.html'));
13 });
14
15 module.exports = router;
16
```

shop.js []  
shop.js [ { title: 'Book' } ]  
shop.js [ { title: 'Book' } ]  
shop.js [ { title: 'Book' } ]  
^C  
Maximilians-MBP:nodejs-complete-guide mschwarzmueller\$ npm install --save ejs pug express-handlebars

- --save because all 3 engines are part of our node code and ship with the code, we deploy on some computer in the end.

- you can install multiple package at once by simply repeating or by adding all the names after npm install.





```
1  const path = require('path');
2
3  const express = require('express');
4
5  const rootDir = require('../util/path');
6  const adminData = require('./admin');
7
8  const router = express.Router();
9
10 router.get('/', (req, res, next) => {
11   console.log('shop.js', adminData.products);
12   res.sendFile(path.join(rootDir, 'views', 'shop.html'));
13 });
14
15 module.exports = router;
16
```

New minor version of npm available! 6.2.0 -> 6.4.0  
Changelog: <https://github.com/npm/cli/releases/tag/v6.4.0>  
Run npm install -g npm to update!

- after installing, go to app.js and now we have to let Express.js know and that is an express feature not node by the way.

- another strong reason why we wanna use express because standalone node will be harder. you would have to do all that manually, here we can just tell Express that 'we got a templating engine' that is express conforming and that is the case for all 3 we installed. so use it to render dynamic template.

- after installing, go to app.js and after we created our express app here and store it in the app constant, we can set a global configuration value. what is that?





- app.set() allows us to set any values globally on our express application. and this can also be keys or configuration items express doesn't understand. but in that case, it just ignore them.
  - but we could actually read them from the app object with app.get() and this would be another way of sharing data across our application. but not really something i'm interested in here.
  - what we can do is to use a couple of reserved key names. so configuration items we can set that do lead to Express.js behaving differently.
- 

Property	Type	Description	Default
case sensitive routing	Boolean	Enable case sensitivity. When enabled, "/Foo" and "/foo" are different routes. When disabled, "/Foo" and "/foo" are treated the same. <b>NOTE:</b> Sub-apps will inherit the value of this setting.	N/A (undefined)
env	String	Environment mode. Be sure to set to "production" in a production environment; see <a href="#">Production best practices: performance and reliability</a> .	process.env.NODE_ENV (NODE_ENV environment variable) or "development" if NODE_ENV is not set

- now most of them don't really matter for us. but interesting for us is the 'view engine' and the 'views' key.
- view engine allows us to tell express 'for any dynamic templates we are trying to render and there will be a special function for doing that, please use this engine we are registering here'
- view allows us to tell express where to find these dynamic views.
- so what we can do is to set and set the view engine to a string pug.





Express					Home	Getting started	Guide	API reference	Advanced topics	Resources
<b>express()</b> <b>Application</b> <i>Properties</i> app.locals app.mountpath <i>Events</i> mount <i>Methods</i> app.all() app.delete() app.disable() app.disabled() app.enable() app.enabled() app.engine() app.get() app.get() app.listen() app.METHOD() app.param() app.path() app.post() app.put() app.render() app.route() app.set() app.use() <b>Request</b> <b>Response</b> <b>Router</b>	json escape	Boolean	Enable escaping JSON responses from the <code>res.json</code> , <code>res.jsonp</code> , and <code>res.send</code> APIs. This will escape the characters <code>&lt;</code> , <code>&gt;</code> , and <code>&amp;</code> as Unicode escape sequences in JSON. The purpose of this is to assist with <a href="#">mitigating certain types of persistent XSS attacks</a> when clients sniff responses for HTML.  <b>NOTE:</b> Sub-apps will inherit the value of this setting.	N/A (undefined)						
	json replacer	Varied	The <code>'replacer'</code> argument used by <code>'JSON.stringify'</code> .  <b>NOTE:</b> Sub-apps will inherit the value of this setting.	N/A (undefined)						
	json spaces	Varied	The <code>'space'</code> argument used by <code>'JSON.stringify'</code> . This is typically set to the number of spaces to use to indent prettified JSON.  <b>NOTE:</b> Sub-apps will inherit the value of this setting.	N/A (undefined)						
	query parser	Varied	Disable query parsing by setting the value to <code>false</code> , or set the query parser to use either <code>'simple'</code> or <code>'extended'</code> or a custom query string parsing function.  The simple query parser is based on Node's native query parser, <a href="#">querystring</a> .  The extended query parser is based on <a href="#">qs</a> .  A custom query string parsing function will receive the complete query string, and must return an object of query keys and their values.	"extended"						
	strict routing	Boolean	Enable strict routing. When enabled, the router treats <code>'/foo'</code> and <code>'/foo/'</code> as different. Otherwise, the router treats <code>'/foo'</code> and <code>'/foo/'</code> as the same.  <b>NOTE:</b> Sub-apps will inherit the value of this setting.	N/A (undefined)						
	subdomain offset	Number	The number of dot-separated parts of the host to remove to access subdomain.	2						
	trust proxy	Varied	Indicates the app is behind a front-facing proxy, and to use the <code>X-Forwarded-*</code> headers to determine the	false (disabled)						

- with this, if i run `npm start`, we wouldn't see anything. however we wouldn't render this template because we are not telling express to do so. we are telling express that it should use this templating engine whenever we try to render a template but we don't try to do that.



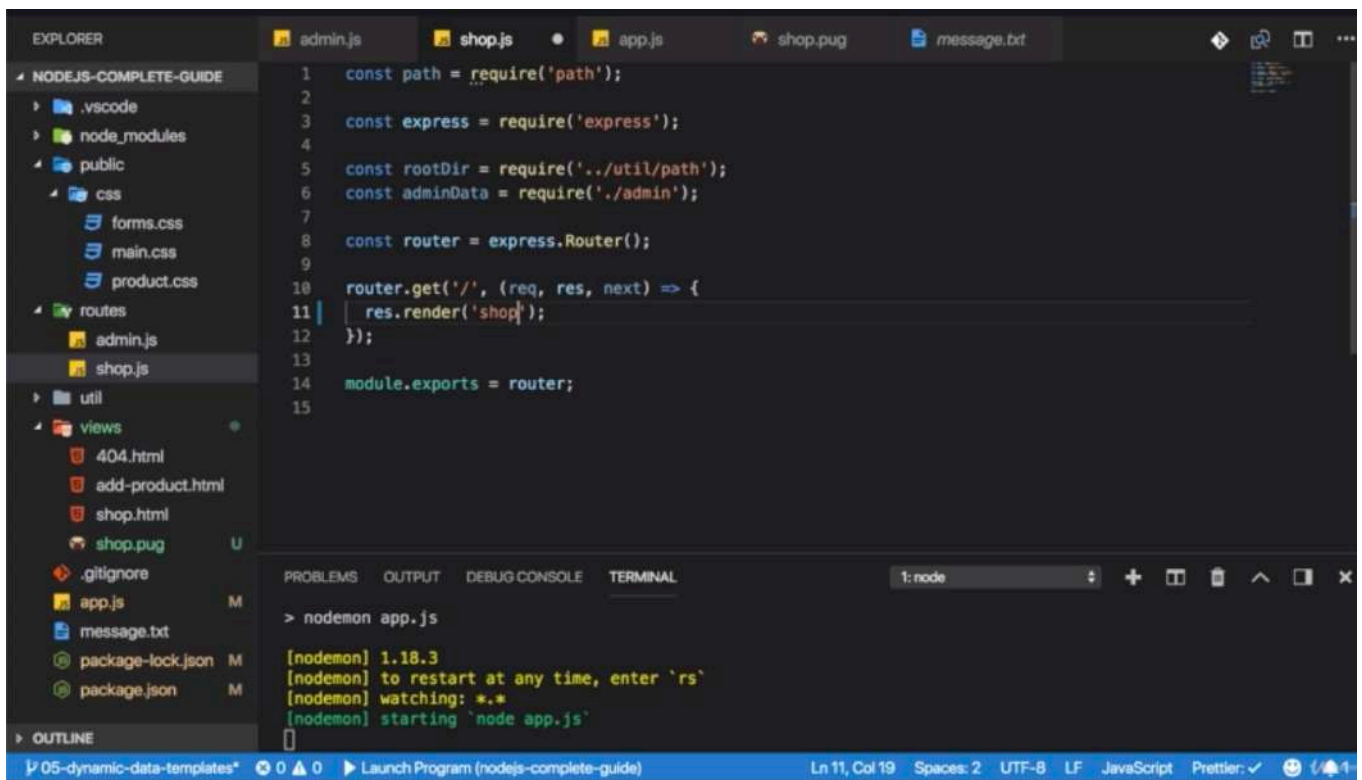
The screenshot shows a VS Code editor with a project named '05-dynamic-data-templates'. The file explorer on the left shows a directory structure with files like `admin.js`, `shop.js`, `app.js`, `shop.html`, and `shop.pug`. The main editor displays the content of `shop.pug`, which is a Pug template for a shop header. The template includes a `!DOCTYPE html` declaration, a `html` tag with `lang="en"`, a `head` section with `meta` tags for charset, viewport, and http-equiv, a `title` 'My Shop', and `link` tags for stylesheets. The `body` section contains a `header` with a `main-header` containing a `nav` with a `main-header__nav` and a `ul` with `main-header__item-list` containing two `li` items: `li.main-header__item` with an `a` href to '/' labeled 'Shop', and `li.main-header__item` with an `a` href to '/admin/add-product' labeled 'Add Product'.

The terminal at the bottom shows the command `> nodemon app.js` being executed. The output indicates that nodemon is running on version 1.18.3, watching for file changes, and starting the application with `node app.js`.

- so in `shop.js`, where we define what should be our response, we have to change the response because right now, we are sending HTML file.

- we will use the special `'render()'` method which is provided by Express.js and it will use the default templating engine which is why we had to define here in `app.js`. it will use that default templating engine and then return that template.





The screenshot shows the VS Code editor with the file explorer on the left. The file explorer shows a project structure with folders like .vscode, node\_modules, public, css, routes, util, and views. The main editor shows the app.js file with the following code:

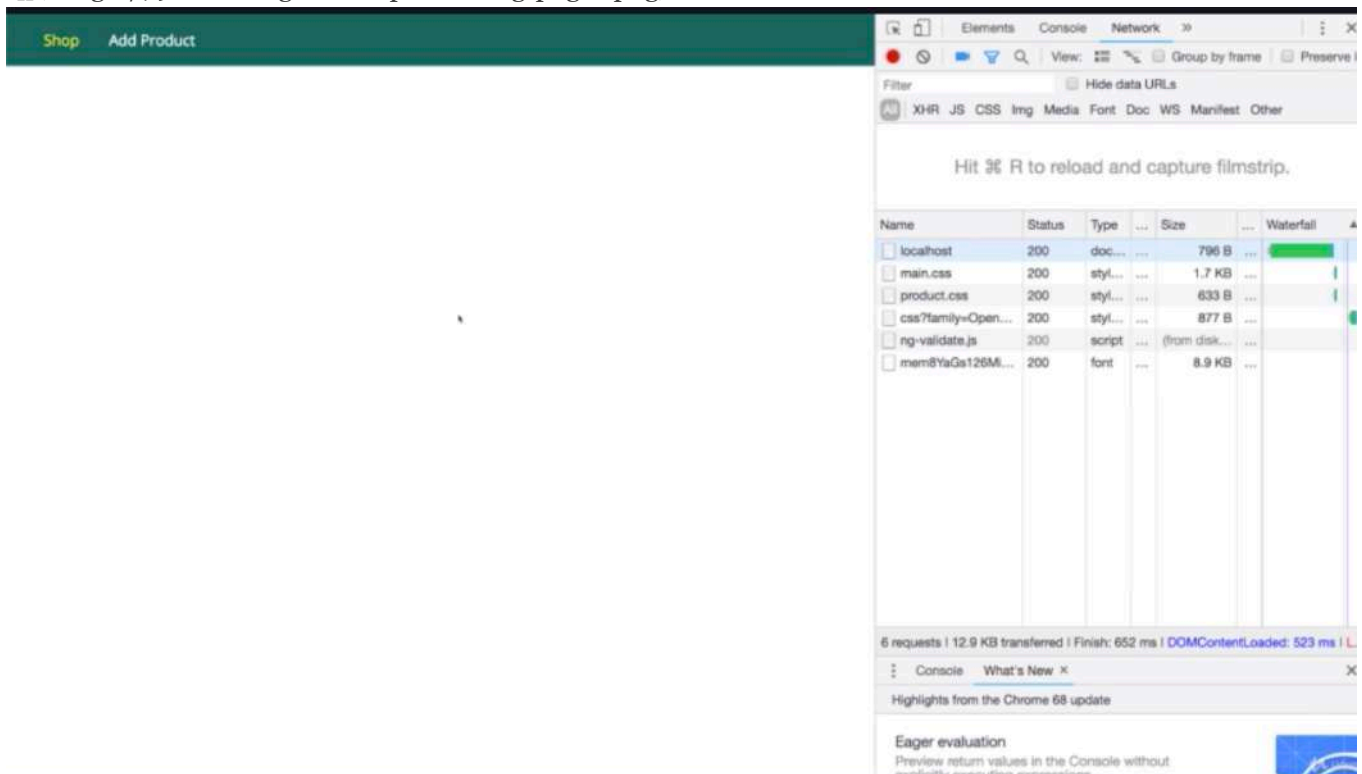
```
1 const path = require('path');
2
3 const express = require('express');
4
5 const rootDir = require('../util/path');
6 const adminData = require('./admin');
7
8 const router = express.Router();
9
10 router.get('/', (req, res, next) => {
11   res.render('shop');
12 });
13
14 module.exports = router;
15
```

The terminal at the bottom shows the command `> nodemon app.js` and the output:

```
[nodemon] 1.18.3
[nodemon] to restart at any time, enter `rs`
[nodemon] watching: *.*
[nodemon] starting `node app.js`
```

- and we defined that all that views are in the views folder, we don't have to construct a path to that folder. instead we can just say shop.





- so if we reload shop page, we see the header, we don't see the main content because we didn't add this but rest of this working fine.





```

29 app.set('views', 'views');
30
31 const adminData = require('./routes/admin');
32 const shopRoutes = require('./routes/shop');
33
34 app.use(bodyParser.urlencoded({extended: false}));
35 app.use(express.static(path.join(__dirname, 'public')));
36
37 app.use('/admin', adminData.routes);
38 app.use(shopRoutes);
39
40 app.use((req, res, next) => {
41     res.status(404).sendFile(path.join(__dirname, 'views', '404.html'));
42 });
43
44 app.listen(3000);
45

```

```

1  <!--./views/shop.pug-->
2
3  <!--pug works differently to normal HTML
4
5  <!--we get no normal HTML tags.
6  <!--but keep in mind that the pug templating engine will compile our code to normal HTML in
   the end.
7  <!--it's important to keep this file's indentation level.-->
8
9  <!DOCTYPE html>
10 html(lang="en")
11     head
12         meta(charset="UTF-8")
13         meta(name="viewport", content="width=device-width, initial-scale=1.0")
14         meta(http-equiv="X-UA-Compatible", content="ie=edge")
15         title My Shop
16         link(rel="stylesheet", href="/css/main.css")
17         link(rel="stylesheet", href="/css/product.css")
18     body
19         header.main-header
20             nav.main-header__nav
21                 ul.main-header__item-list
22                     li.main-header__item
23                         a.active(href="/") Shop
24                     li.main-header__item
25                         a(href="/admin/add-product") Add Product

```

```

1  <!--./routes/shop.js
2
3  const path = require('path');
4
5  const express = require('express');
6
7  const rootDir = require('../util/path');
8  const adminData = require('./admin');
9
10 const router = express.Router();
11
12 router.get('/', (req, res, next) => {

```

```

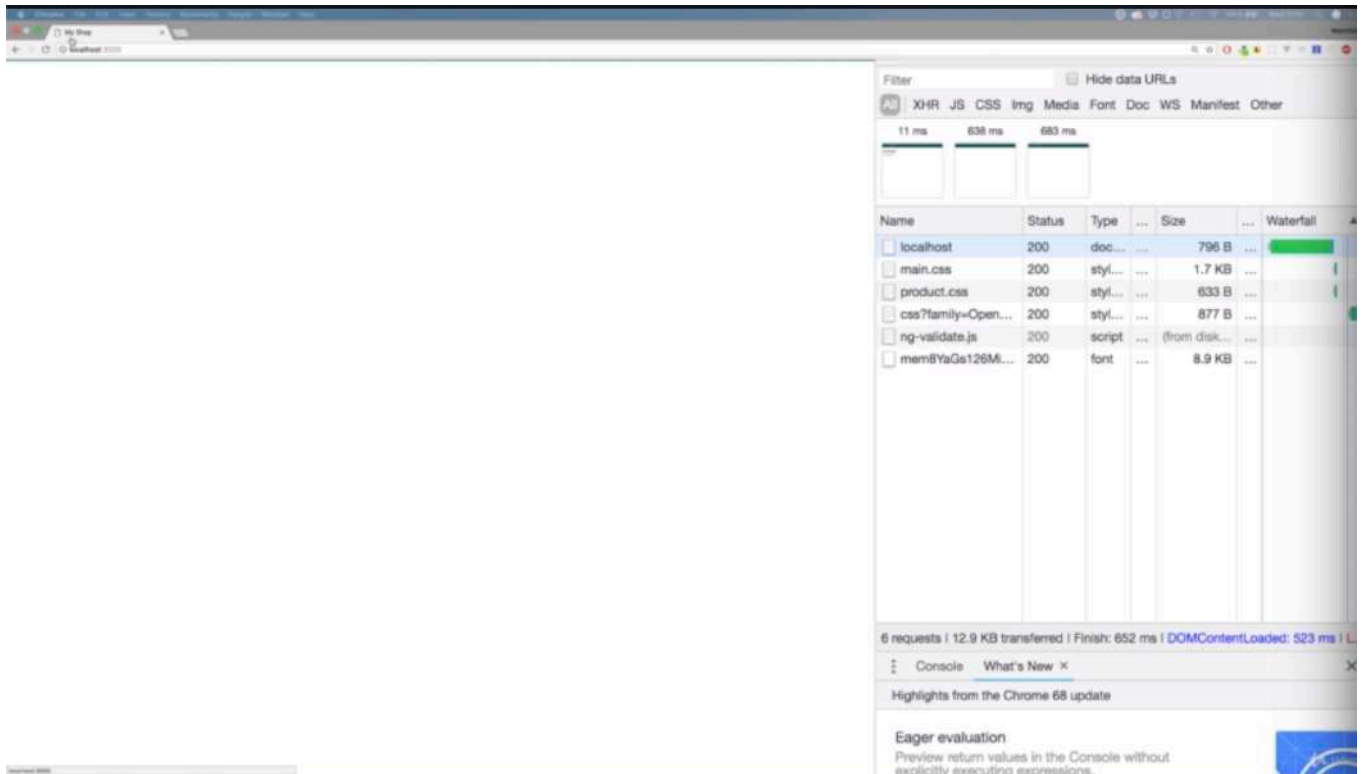
13  /**you don't need to type .pug because it know that this in here is .pug file */
14  res.render('shop');
15  });
16
17  module.exports = router;
18

```

## \* Chapter 80: Outputting Dynamic Content

1. update
- ./routes/shop.js
- ./views/shop.pug



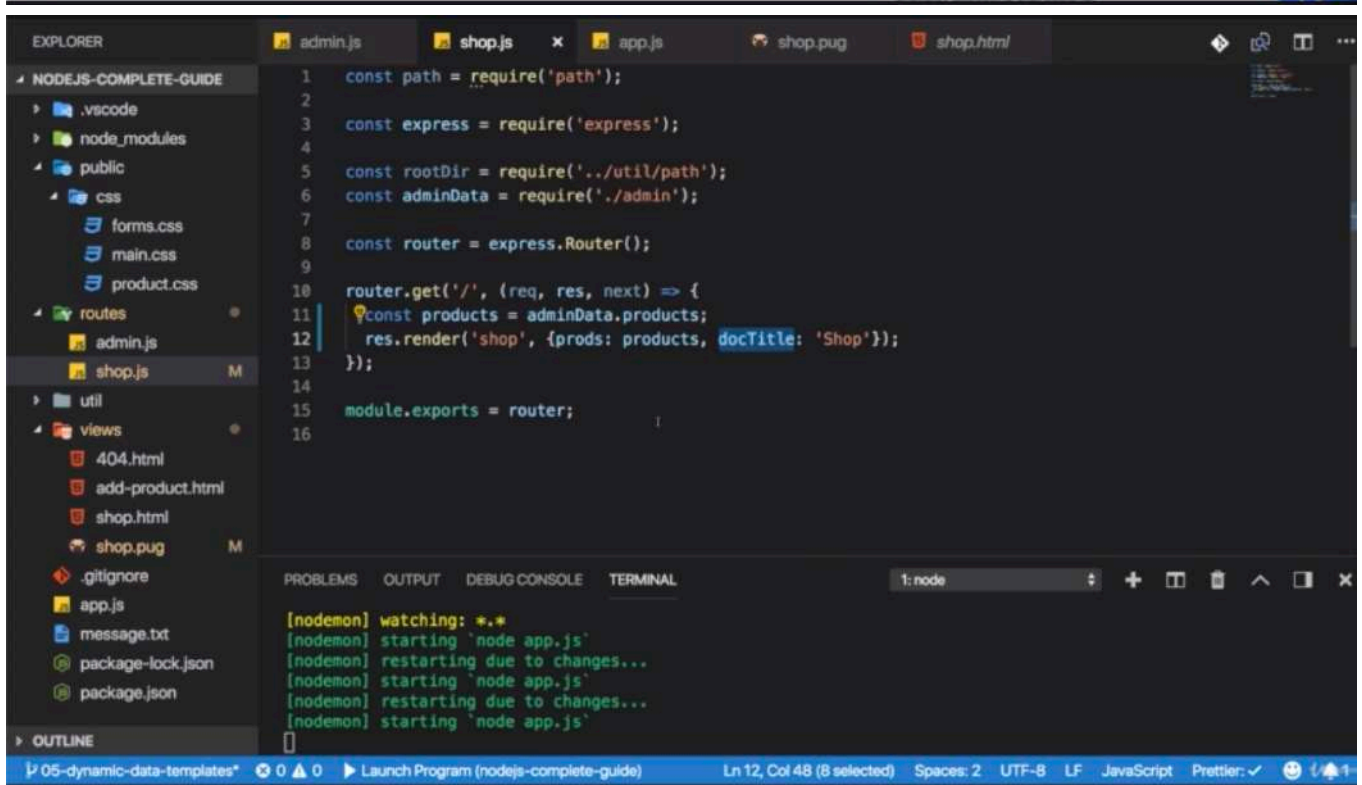
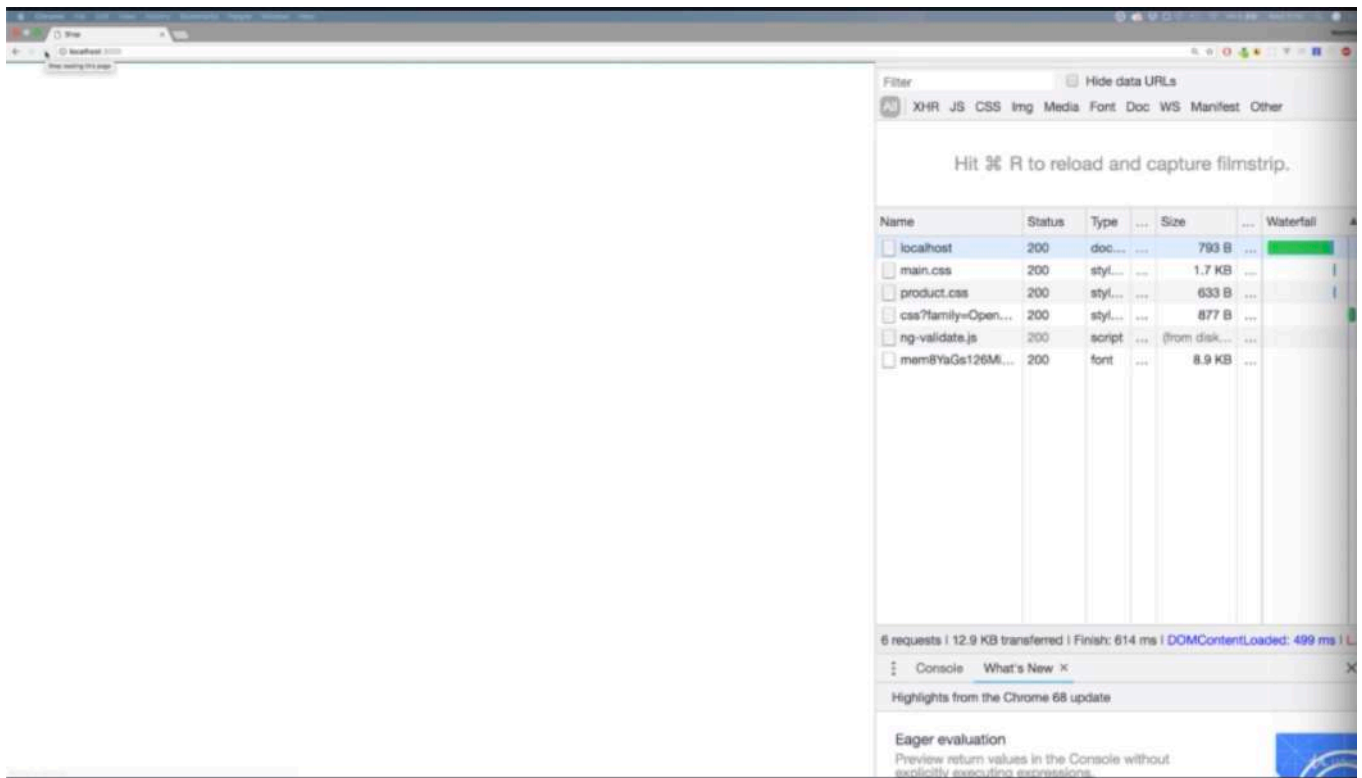


- right now, it's still 'My Shop'











```

1 <!DOCTYPE html>
2 html(lang="en")
3   head
4     meta(charset="UTF-8")
5     meta(name="viewport", content="width=device-width, initial-scale=1.0")
6     meta(http-equiv="X-UA-Compatible", content="ie=edge")
7     title #{docTitle}
8     link(rel="stylesheet", href="/css/main.css")
9     link(rel="stylesheet", href="/css/product.css")
10   body
11     header.main-header
12       nav.main-header__nav
13         ul.main-header__item-list
14           li.main-header__item
15             a.active(href="/") Shop
16           li.main-header__item
17             a(href="/admin/add-product") Add Product
18

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

[nodemon] watching: \*.\*  
[nodemon] starting 'node app.js'  
[nodemon] restarting due to changes...  
[nodemon] starting 'node app.js'  
[nodemon] restarting due to changes...  
[nodemon] starting 'node app.js'

- if i now reload, it's Shop because this is the title i'm storing in 'docTitle' and 'docTitle' is what we outputting here.









Shop Add Product

Title  
First Book  
Add Product

Name	Status	Type	Size	Waterfall
add-product	200	doc...	1.4 KB	
main.css	200	styl...	1.7 KB	
forms.css	200	styl...	599 B	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...)	
mem8YaGs126M...	200	font	8.7 KB	

7 requests | 13.6 KB transferred | Finish: 269 ms | DOMContentLoaded: 140 ms | L

Console What's New X

Highlights from the Chrome 68 update

Eager evaluation  
Preview return values in the Console without explicitly executing expressions

ShopAdd Product

First Book

DISCOVER

pixabay

FREE IMAGES

NO HOTLINKING ▲

\$19.99

A very interesting book about so many even more interesting things!

Add to Cart

ElementsConsoleNetwork

FilterHide data URLsXHRJS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	302	text...	193 B	
localhost	200	doc...	1.3 KB	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
book-1296045_96...	302	text...	370 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
no_hotlinking.png	307		0 B	
no_hotlinking.png	200	png	5.2 KB	
mem8YaGs126M...	200	font	8.7 KB	
mem5YaGs126M...	200	font	8.7 KB	

11 requests | 27.4 KB transferred | Finish: 430 ms | DOMContentLoaded: 141 ms |

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluationPreview return values in the Console without explicitly executing expressions.

ShopAdd Product

No Products

ElementsConsoleNetwork

FilterHide data URLsXHRJS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

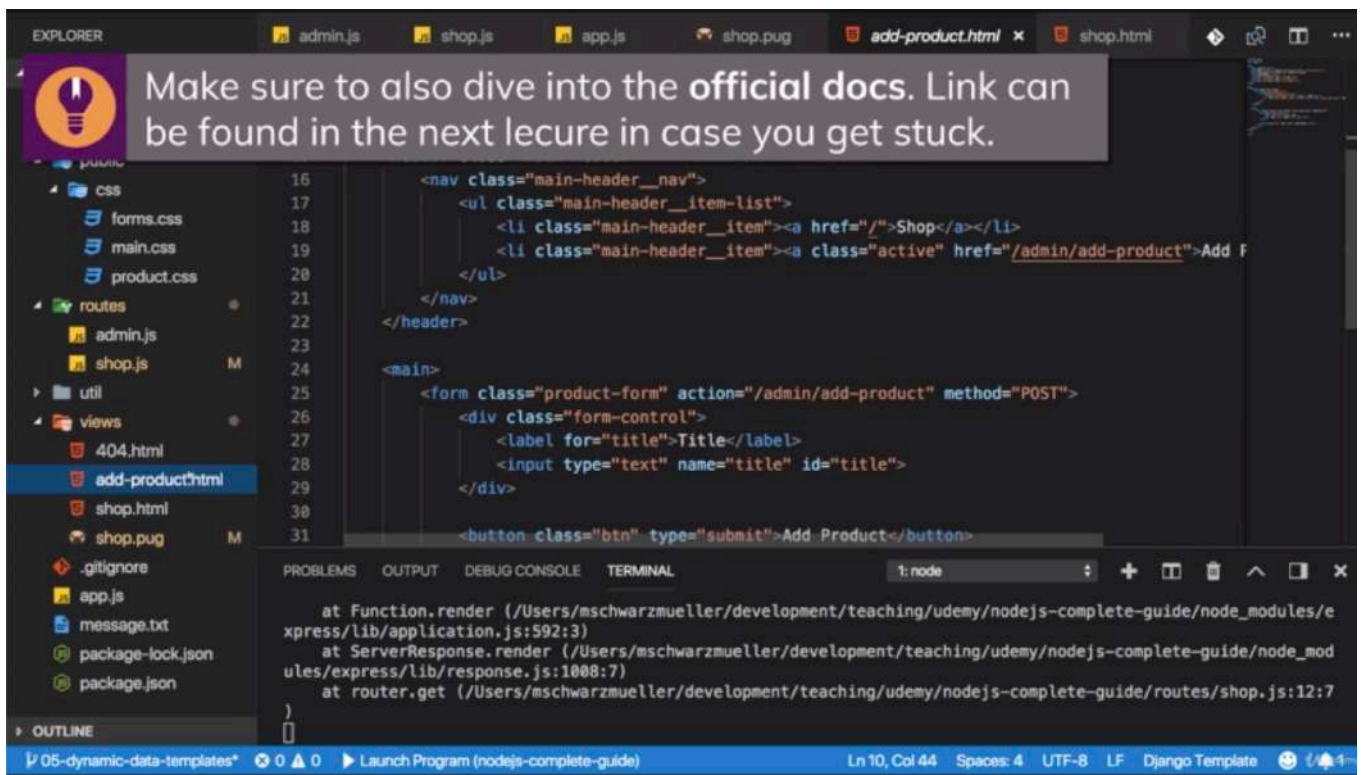
Name	Status	Type	Size	Waterfall
localhost	200	doc...	826 B	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126M...	200	font	8.7 KB	
mem5YaGs126M...	200	font	8.7 KB	

7 requests | 21.2 KB transferred | Finish: 375 ms | DOMContentLoaded: 203 ms |

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluationPreview return values in the Console without explicitly executing expressions.



```
1 //./routes/shop.js
2
3 const path = require('path');
4
5 const express = require('express');
6
7 const rootDir = require('../util/path');
8 const adminData = require('./admin');
9
10 const router = express.Router();
11
12 router.get('/', (req, res, next) => {
13   const products = adminData.products;
14   /**now we wanna pass that into our template, inject it into our template
15    * so that we can use it in .pug template file and somehow output it there
16    *
17    * to do that, we can simply pass a second argument to the render method,
18    * the render() method allows us to pass in data that should be added into our view
19    *
20    * as a javascript object where we map it to key name
21    * which we then can use in the template to refer to the data we are passing in.
22    *
23    * simply let's use 'prods' to avoid naming confusion.
24    * then i will bind my products.
25    *
26    * this is passed to the template.
27    * now in the template (shop.pug file), we will just be able to access prods.
28    */
29
30   /**by the way, we can also pass more than 1 field.
31    * we could pass in 'docTitle: 'shop'' and now we can use that too.
32    */
33   res.render('shop', {prods: products, docTitle: 'Shop'});
34 });
```

35

36 module.exports = router;

1 //&lt;!--./views/shop.pug--&gt;

2

3 &lt;!DOCTYPE html&gt;

4 html(lang="en")

5 head

6 meta(charset="UTF-8")

7 meta(name="viewport", content="width=device-width, initial-scale=1.0")

8 meta(http-equiv="X-UA-Compatible", content="ie=edge")

9 //&lt;!--we can use the custom templating syntax pug gives us

10 //if you just wanna output some text, this is a hashtag followed by 2 curly braces

11 //and between these curly braces, you can pass any value you are passing into your  
view like 'docTitle' in shop.js.

12 --&gt;

13 title #{docTitle}

14 link(rel="stylesheet", href="/css/main.css")

15 link(rel="stylesheet", href="/css/product.css")

16 body

17 header.main-header

18 nav.main-header\_\_nav

19 ul.main-header\_\_item-list

20 li.main-header\_\_item

21 a.active(href="/") Shop

22 li.main-header\_\_item

23 a(href="/admin/add-product") Add Product

24 main

25 if prods.length &gt; 0

26 .grid

27 //&lt;!--we don't need header tag

28 because this is added automatically,

29 //now this output a grid of product cards

30 but only with static content.

31 now make this less static, we need to iterate through all the

products

32 and that we do pass the product into the view on the 'prods' key  
in the shop.js file33 and so to iterate and repeat this article in shop.pug for all  
the products,

34 we can simply add a special syntax provided by pug

35 and you create such a loop by adding 'each' keyword

36 then a value in which you wanna store the value for the current  
iteration.

37 so a single 'product' in our case.

38 then after 'in', you can put what you want which is 'prods'

referred from shop.js passing to our view.--&gt;

39 each product in prods

40 //&lt;!--you don't need div

41 because if you don't have anything, it's assumed to be a div--&gt;

42 article.card.product-item

43 //&lt;!--if you have got multiple classes,

44 you need to merge them

45 and simply concatenate them separated by dots .

46 and never forget the indentation--&gt;

47 header.card\_\_header

48 //&lt;!--one single 'product' is in prods which is the product

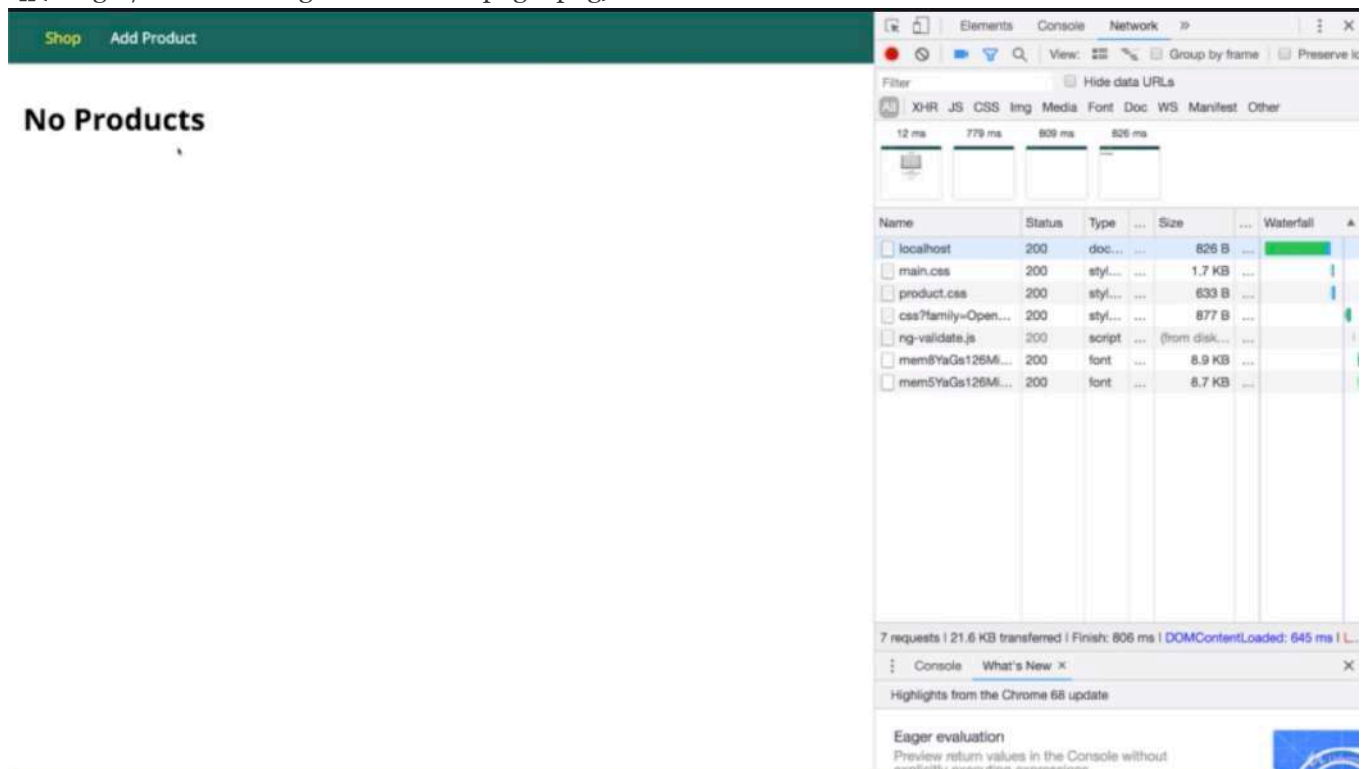
array referred from shop.js

```
49                                     so product.title is title filled in browser-->
50                                     h1.product__title #{product.title}
51                                     //-<!--you never need closing tags here
52                                     because pug will handle it for you.-->
53                                     div.card__image
54
55                                     img(src="https://cdn.pixabay.com/photo/2016/03/31/20/51/book-1296045_960_720.png", alt="A
Book")
56                                     div.card__content
57                                     h2.product__price $19.99
58                                     p.product__description A very interesting book about so many
even more interesting things!</p>
59                                     .card__actions
60                                     button.btn Add to Cart
61                                     else
62                                     h1 No Products
```

## \* Chapter 82: Converting HTML Files To Pug

1. update
- ./views/add-product.pug
  - ./routes/admin.js
  - ./views/404.pug
  - app.js





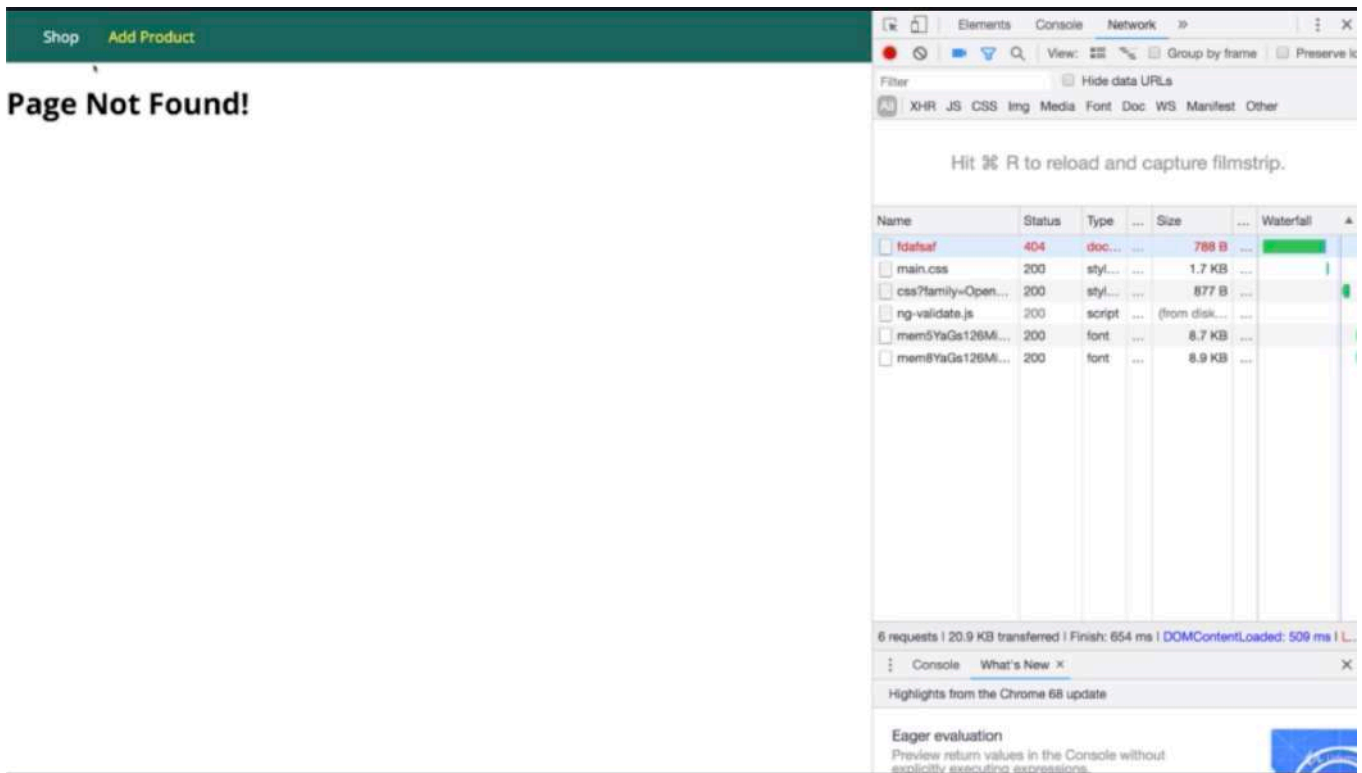
- this is gone because the server restarted due to our server-side changes.











```
1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7
8 const app = express();
9
10 /** you can't enter anything inside 'pug'
11  * we use pug because we installed the pug templating engine
12  * and this engine actually ships with built in express support and auto registers itself
13  * so that is why this works. pug is supported out of the box and with that, we are already
14  * set to go.
15  */
16 app.set('view engine', 'pug');
17 /**we can let express know where to find our views
18  * however the default setting for views already is our main directory and then the views
19  * folder.
20  *
21  * i will still send it explicitly here to show you how this would work
22  * if you would store your views in another folder which is not called views
23  * but maybe templates or whatever it is, that you have to set this configuration
24  * i will set it too even though it wouldn't be needed
25  * because views is the default.
26  */
27
28 /** now we are telling express that we wanna compile dynamic templates with the pug engine
29  * and where to find these templates.
30  */
31 app.set('views', 'views');
32
33 const adminData = require('./routes/admin');
```

```

32 const shopRoutes = require('./routes/shop');
33
34 app.use(bodyParser.urlencoded({extended: false}));
35 app.use(express.static(path.join(__dirname, 'public')));
36
37 app.use('/admin', adminData.routes);
38 app.use(shopRoutes);
39
40 app.use((req, res, next) => {
41   res.status(404).render('404')
42 });
43
44 app.listen(3000);
45

```

```

1  //./routes/admin.js
2
3  const path = require('path');
4
5  const express = require('express');
6
7  const rootDir = require('../util/path');
8
9  const router = express.Router();
10
11 const products = [];
12
13 // /admin/add-product => GET
14 router.get('/add-product', (req, res, next) => {
15   res.render('add-product', { pageTitle: 'Add Product' })
16 });
17
18 // /admin/add-product => POST
19 router.post('/add-product', (req, res, next) => {
20   /**if we change that in other file, it also gives us the update here.
21    *
22    * the problem is that this is data which is inherit to our node server
23    * as it is running and therefore it's shared across all users.
24    * sometimes this is what you may want but very rarely. you will probably never implement
25    this.
26    * you always wanna fetch data for a specific request
27    * and if that happens to be the same data you show for all users that send this request.
28    */
29   products.push({ title: req.body.title });
30   res.redirect('/');
31 });
32
33 exports.routes = router;
34 exports.products = products;
35

```

```

1  <!--./views/404.pug-->
2
3  <!DOCTYPE html>
4  html(lang="en")
5    head

```

```

6      meta(charset="UTF-8")
7      meta(name="viewport", content="width=device-width, initial-scale=1.0")
8      meta(http-equiv="X-UA-Compatible", content="ie=edge")
9      title Page Not Found
10     link(rel="stylesheet", href="/css/main.css")
11   body
12     header.main-header
13       nav.main-header__nav
14         ul.main-header__item-list
15           li.main-header__item
16             a.active(href="/") Shop
17           li.main-header__item
18             a.active(href="/admin/add-product") Add Product
19     h1 Page Not Found

```

```

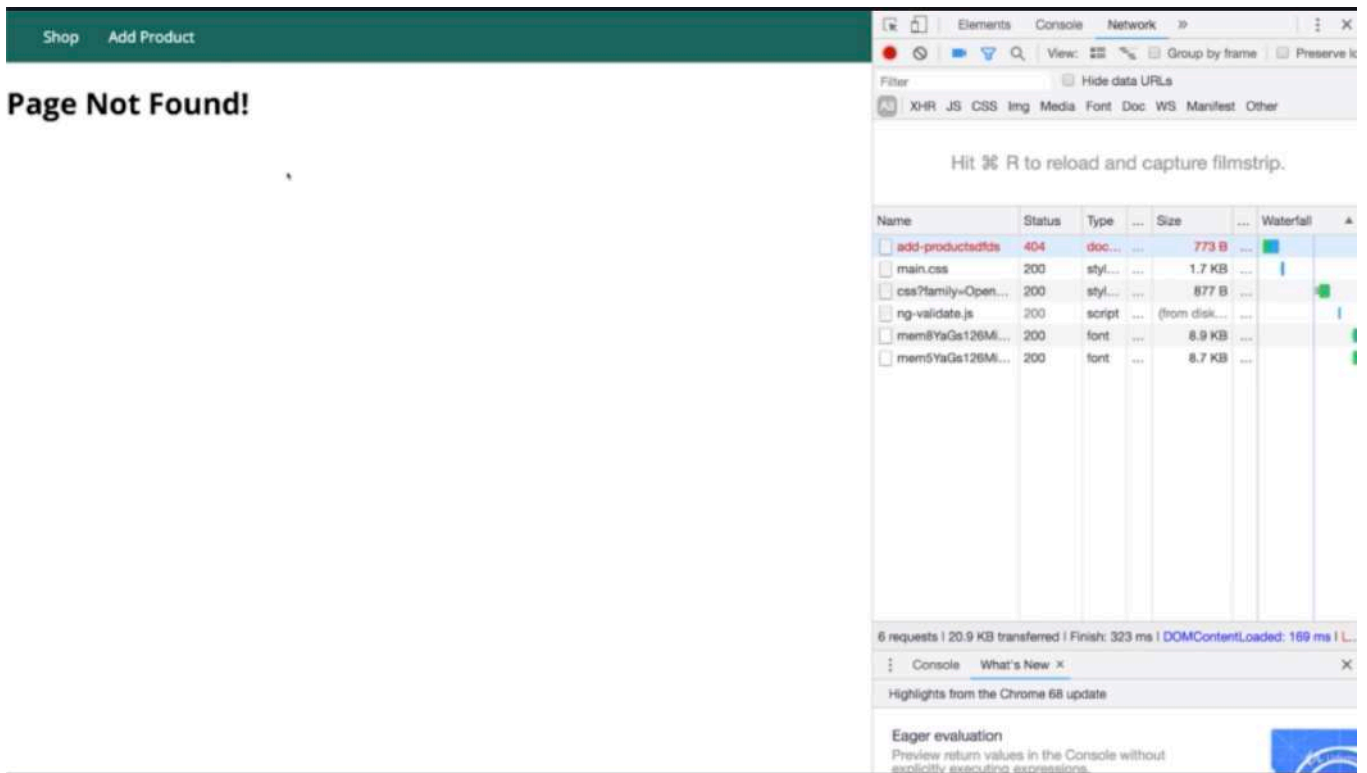
1  //-<!--./views/add-product.pug-->
2
3  <!DOCTYPE html>
4  html(lang="en")
5    head
6      meta(charset="UTF-8")
7      meta(name="viewport", content="width=device-width, initial-scale=1.0")
8      meta(http-equiv="X-UA-Compatible", content="ie=edge")
9      title #{pageTitle}
10     link(rel="stylesheet", href="/css/main.css")
11     link(rel="stylesheet", href="/css/form.css")
12     link(rel="stylesheet", href="/css/product.css")
13   body
14     header.main-header
15       nav.main-header__nav
16         ul.main-header__item-list
17           li.main-header__item
18             a.active(href="/") Shop
19           li.main-header__item
20             a.active(href="/admin/add-product") Add Product
21
22     main
23       form.product-form(action="/admin/add-product", method="POST")
24         .form-control
25           label(for="title") Title
26           input(type="text", name="title")#title
27
28       button.btn(type="submit") Add Product

```

## \* Chapter 83: Adding A Layout

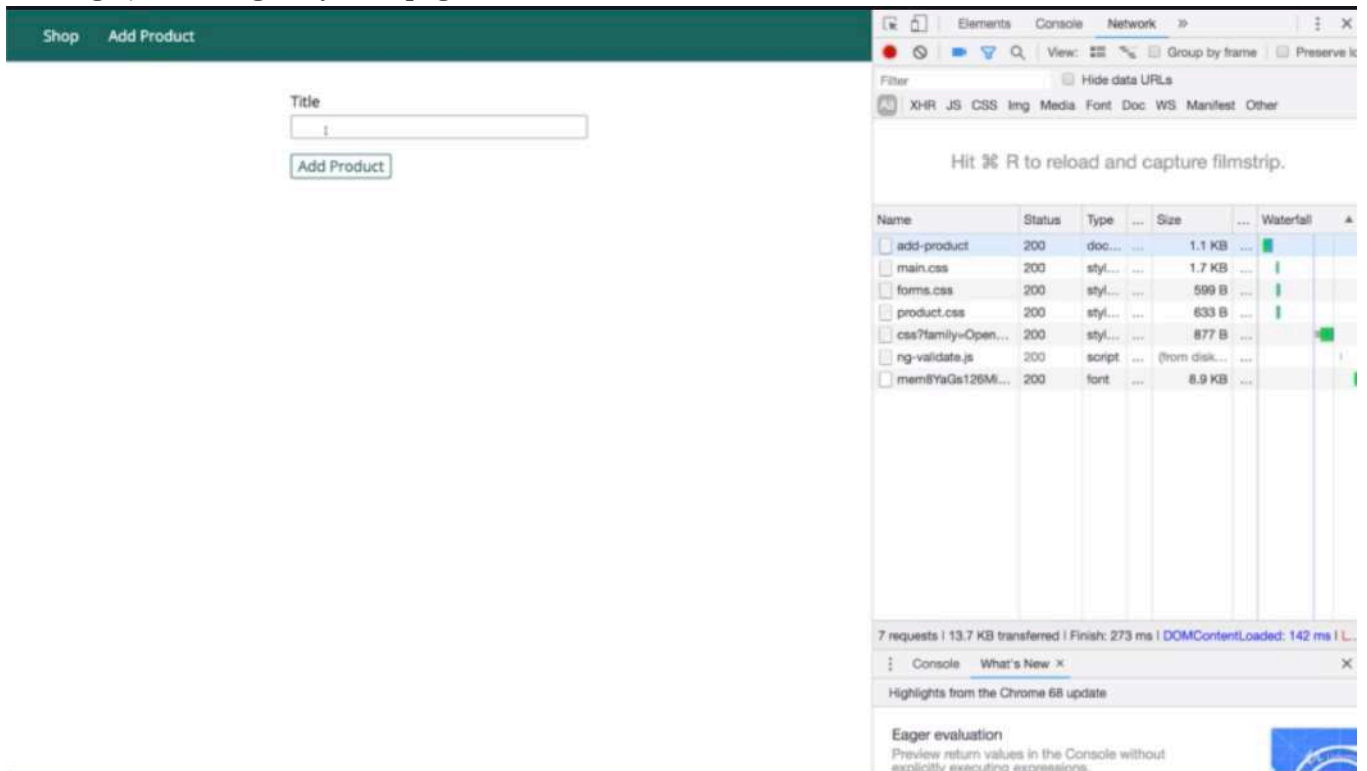
1. update
  - ./views/layouts/main-layout.pug
  - ./views/404.pug
  - ./views/add-product.pug





- if i save and i enter some random path which doesn't exist, i still get Page Not Found.
- but now behind the scenes, this uses my layout and we can do the same on the other pages like add-product.pug file





```

1 //<!--/views/layouts/main-layout.pug-->
2
3 //<!--./views/404.pug-->
4
5 <!DOCTYPE html>
6 html(lang="en")
7   head
8     meta(charset="UTF-8")

```

```

9      meta(name="viewport", content="width=device-width, initial-scale=1.0")
10     meta(http-equiv="X-UA-Compatible", content="ie=edge")
11     title Page Not Found
12     link(rel="stylesheet", href="/css/main.css")
13     //-<!--we can extend this layout from inside our other pug views
14         and we can actually define some placeholders, some hooks in this layout
15         where other views can then enter their content.
16
17         for example, in the links, we get a base layout which looks like this
18         but in other views that should extend this layout,
19         they might use this layout and add more links in this place
20         we can define such a hook by adding the 'block' keyword which pug understand
21         and then defining any name of our choice. styles for example
22         we will be able to add more styles from inside other files here
23
24         we get this basic layout with 2 hooks(styles, content).
25         we can dynamically enter content into from inside our other files
26         -->
27     block styles
28     body
29         header.main-header
30             nav.main-header__nav
31                 ul.main-header__item-list
32                     li.main-header__item
33                         a.active(href="/") Shop
34                     li.main-header__item
35                         a(href="/admin/add-product") Add Product
36     block content

```

```

1  //-<!--./views/add-product.pug-->
2  extends layouts/main-layout.pug
3
4  block styles
5      //-<!--these are the 2 styles imports which are not part of the default layout-->
6      link(rel="stylesheet", href="/css/form.css")
7      link(rel="stylesheet", href="/css/product.css")
8
9  block content
10     main
11         form.product-form(action="/admin/add-product", method="POST")
12             .form-control
13                 label(for="title") Title
14                 input(type="text", name="title")#title
15
16         button.btn(type="submit") Add Product

```

```

1  //-<!--./views/404.pug-->
2
3  //-<!--we can now extend the layout
4      by adding the extends keyword which pug understands
5      and now we just need to point at the 'layouts' folder.
6      we have the layouts folder and we wanna use the 'main-layout' file in there
7      -->
8  extends layouts/main-layout.pug
9
10 //-<!-- and now we have to tell it what to render in that content
11     and maybe also in that styles hook, we defined.

```

```

12         for styles, i don't need any special setting here
13         but for the content block, i wanna enter my own custom content
14         and i do this by again typing block content
15         but now since i extend a layout, this will not define a hook
16         but allow me to add content in that layout
17         and then indent it here. and i define what should be injected into the content
        block in the layout.
18         -->
19     block content
20         h1 Page Not Found

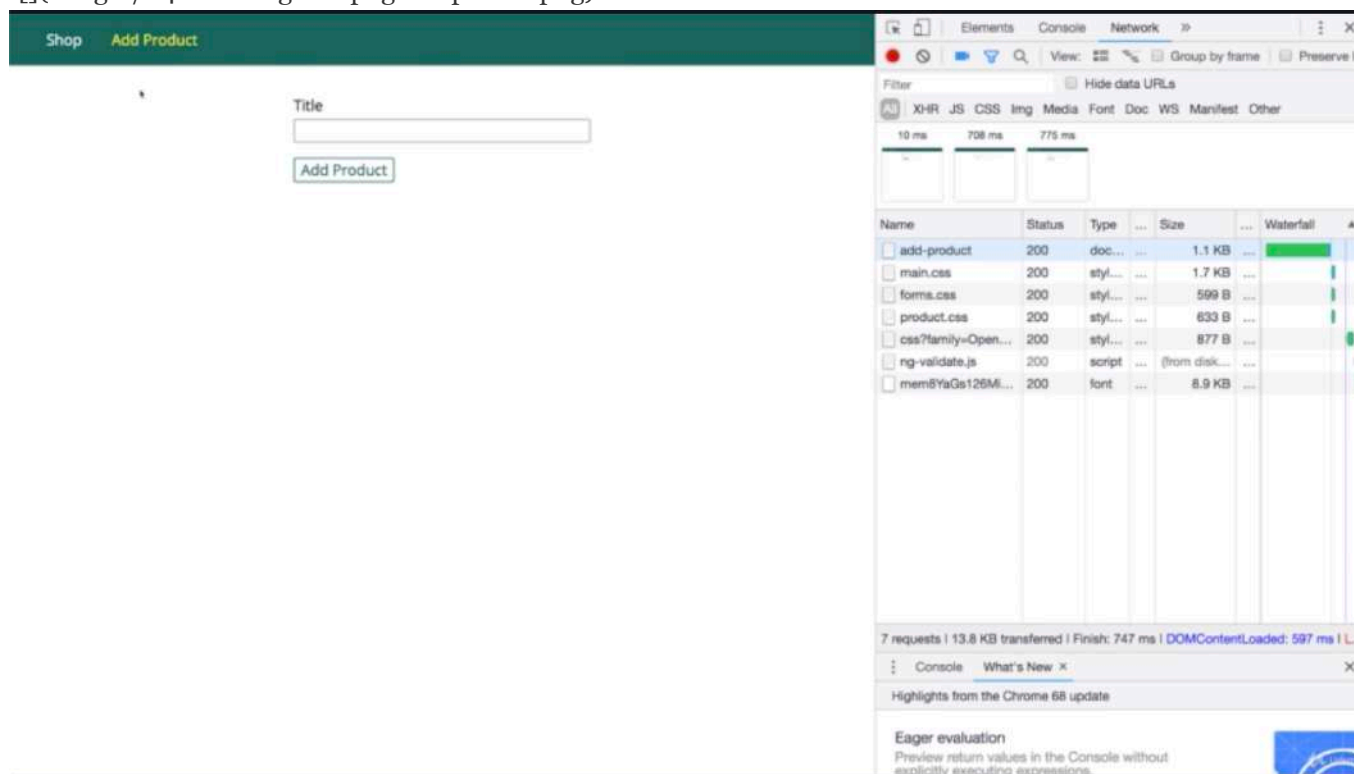
```

## \* Chapter 84: Finishing The Pug Template

1. update

- ./routes/admin.js
- ./routes/shop.js
- ./views/main-layout.pug
- ./views/shop.pug
- app.js





- you see add-product is yellow because it's marked as active.

















ShopAdd Product

No Products

ElementsConsoleNetwork

FilterHide data URLsXHRJS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
localhost	200	doc...	826 B	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.7 KB	
mem5YaGs126Mi...	200	font	8.7 KB	

7 requests | 21.2 KB transferred | Finish: 345 ms | DOMContentLoaded: 210 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluationPreview return values in the Console without explicitly executing expressions.

ShopAdd Product

No Products

ElementsConsoleNetwork

FilterHide data URLsXHRJS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
localhost	200	doc...	838 B	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	877 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.9 KB	
mem5YaGs126Mi...	200	font	8.7 KB	

7 requests | 21.6 KB transferred | Finish: 727 ms | DOMContentLoaded: 595 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluationPreview return values in the Console without explicitly executing expressions.

ShopAdd Product

Title

First Book

First Book

Add Product

ElementsConsoleNetwork

Filter

XHRJS CSS Img Media Font Doc WS Manifest Other

Hit % R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	200	doc...	1.1 KB	
main.css	200	styl...	1.7 KB	
forms.css	200	styl...	599 B	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.7 KB	

7 requests | 13.3 KB transferred | Finish: 246 ms | DOMContentLoaded: 126 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

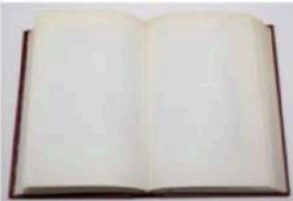
Eager evaluation

Preview return values in the Console without

sanitizing expressions

ShopAdd Product

First Book



\$19.99

A very interesting book about so many even more interesting things!

Add to Cart

ElementsConsoleNetwork

Filter

XHRJS CSS Img Media Font Doc WS Manifest Other

Hit % R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	302	text...	193 B	
localhost	200	doc...	6.2 KB	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
data:image/peg.b...	200	jpeg	(from me...	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.7 KB	
mem5YaGs126Mi...	200	font	8.6 KB	

9 requests | 26.7 KB transferred | Finish: 320 ms | DOMContentLoaded: 169 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluation

Preview return values in the Console without

sanitizing expressions

Chrome

File Edit View History Bookmarks People Windows Help

localhost:5555

100%

No Products

Filter

Hide data URLs

XHR JS CSS Img Media Font Doc WS Manifest Other

10 ms 609 ms 642 ms 659 ms 1.61 s

Name	Status	Type	Size	Waterfall
localhost	200	doc...	828 B	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	877 B	
ng-validate.js	200	script	(from disk...	
mem5YaGs126Mi...	200	font	8.9 KB	
mem5YaGs126Mi...	200	font	8.7 KB	

7 requests | 21.6 KB transferred | Finish: 639 ms | DOMContentLoaded: 494 ms | L...

Console What's New X

Highlights from the Chrome 68 update

Eager evaluation  
Preview return values in the Console without  
synchronously executing expressions.

Chrome

File Edit View History Bookmarks People Windows Help

localhost:5555

100%

Add Product

Add Product | localhost:5555/index.html product

localhost:5555

localhost:5555

localhost:5555

localhost:5555

localhost:5555

localhost:5555

Hit % R to reload and capture filmstrip.

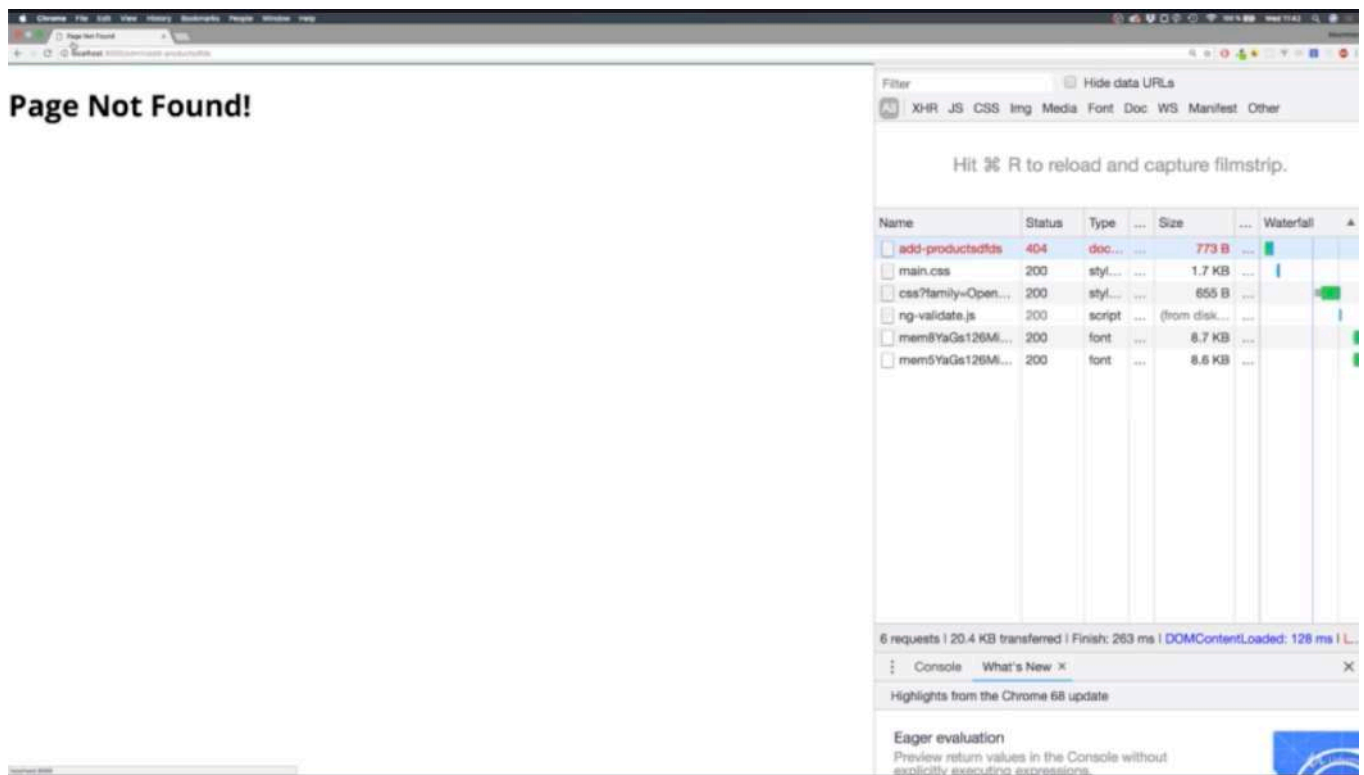
Name	Status	Type	Size	Waterfall
add-product	200	doc...	1.1 KB	
main.css	200	styl...	1.7 KB	
forms.css	200	styl...	599 B	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	855 B	
ng-validate.js	200	script	(from disk...	
mem5YaGs126Mi...	200	font	8.7 KB	

7 requests | 13.3 KB transferred | Finish: 253 ms | DOMContentLoaded: 139 ms | L...

Console What's New X

Highlights from the Chrome 68 update

Eager evaluation  
Preview return values in the Console without  
synchronously executing expressions.



```

1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7
8 const app = express();
9
10 app.set('view engine', 'pug');
11 app.set('views', 'views');
12
13 const adminData = require('./routes/admin');
14 const shopRoutes = require('./routes/shop');
15
16 app.use(bodyParser.urlencoded({extended: false}));
17 app.use(express.static(path.join(__dirname, 'public')));
18
19 app.use('/admin', adminData.routes);
20 app.use(shopRoutes);
21
22 app.use((req, res, next) => {
23   res.status(404).render('404', {pageTitle: 'Page Not Found'})
24 });
25
26 app.listen(3000);

```

```

1 //./routes/admin.js
2
3 const path = require('path');
4
5 const express = require('express');
6
7 const rootDir = require('../util/path');
8

```

```

9  const router = express.Router();
10
11  const products = [];
12
13  // /admin/add-product => GET
14  router.get('/add-product', (req, res, next) => {
15    /**i pass this path into my view,
16     * so that the view can find out what is the path for which this was loaded
17     */
18    res.render('add-product', { pageTitle: 'Add Product', path: '/admin/add-product' })
19  });
20
21  // /admin/add-product => POST
22  router.post('/add-product', (req, res, next) => {
23    products.push({ title: req.body.title });
24    res.redirect('/');
25  });
26
27  exports.routes = router;
28  exports.products = products;
29

```

```

1  //./routes/shop.js
2
3  const path = require('path');
4
5  const express = require('express');
6
7  const rootDir = require('../util/path');
8  const adminData = require('../admin');
9
10 const router = express.Router();
11
12 router.get('/', (req, res, next) => {
13   const products = adminData.products;
14   res.render('shop', { prods: products, pageTitle: 'Shop', path: '/' });
15 });
16
17 module.exports = router;

```

```

1  <!--/views/layouts/main-layout.pug-->
2
3  <!DOCTYPE html>
4  html(lang="en")
5    head
6      meta(charset="UTF-8")
7      meta(name="viewport", content="width=device-width, initial-scale=1.0")
8      meta(http-equiv="X-UA-Compatible", content="ie=edge")
9      title #{pageTitle}
10     link(rel="stylesheet", href="/css/main.css")
11     block styles
12   body
13     header.main-header
14       nav.main-header__nav
15         ul.main-header__item-list
16           li.main-header__item
17             a(href="/", class=(path === '/' ? 'active' : '')) Shop

```

```

18         li.main-header__item
19             //<!--in the main-layout,
20                 i know i wanna add the active class to this add-product
21                 if the path and the path now simply is a variable i get passed
into the page(main-layout.pug file),
22                 if the path simply is '/admin/add-product' and that is something
we define
23                 and therefore you could pick any path you want
24
25                 so i will add a check here.
26                 a class can be added, a CSS class as an attribute too
27                 and now i will have some javascript code which we can enclose
with bracket
28                 now we gonna check if path is equal to '/admin/add-product'
29                 this is why i meant you can use whatever path you want, you are
defining the condition here.
30
31                 then if path is equal to this, then i know that add-product is
the page i'm on
32                 because only for the add-product route i do set this path.
33                 then if that is the case, i wanna render active as a class
here.-->
34                 a(href="/admin/add-product", class=(path === '/admin/add-product' ?
'active' : '')) Add Product
35                 block content

```

```

1 //<!--./views/shop.pug-->
2
3 extends layouts/main-layout.pug
4
5 block styles
6     link(rel="stylesheet", href="/css/product.css")
7
8 block content
9     main
10         if prods.length > 0
11             .grid
12                 each product in prods
13                     article.card.product-item
14                         //<!--you need to merge them
15                         and simply concatenate them separated by dots .
16                         and never forget the indentation-->
17                         header.card__header
18                             h1.product__title #{product.title}
19                         div.card__image
20                             img(src="https://cdn.pixabay.com/photo/2016/03/31/20/51/book-
1296045_960_720.png", alt="A Book")
21                         div.card__content
22                             h2.product__price $19.99
23                             p.product__description A very interesting book about so many
even more interesting things!</p>
24                         .card__actions
25                             button.btn Add to Cart
26                     else
27                         h1 No Products

```



# \* Chapter 85: Working With Handlebars

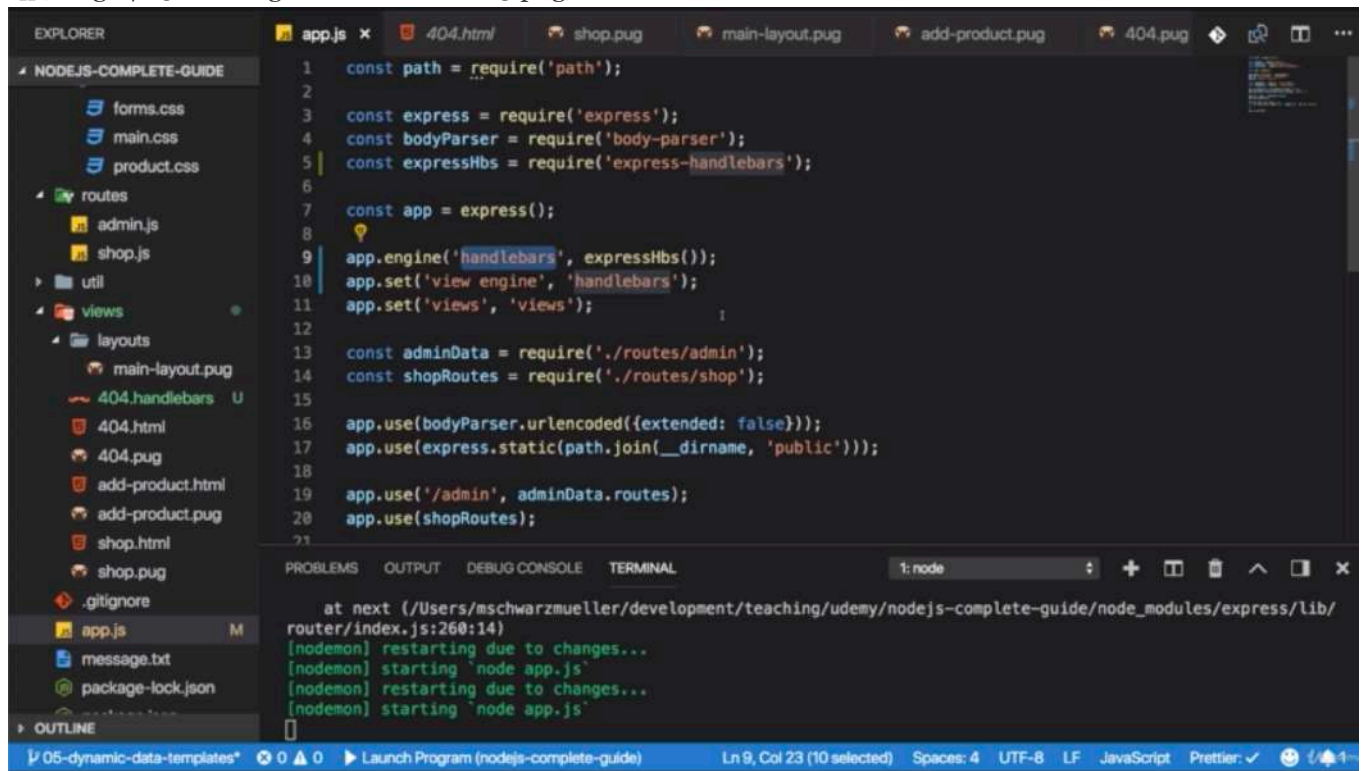
- 1. update
- app.js
- ./views/404.hbs

- handlebars doesn't follow such a minimal HTML approach but uses normal HTML mixed with some templating logic.







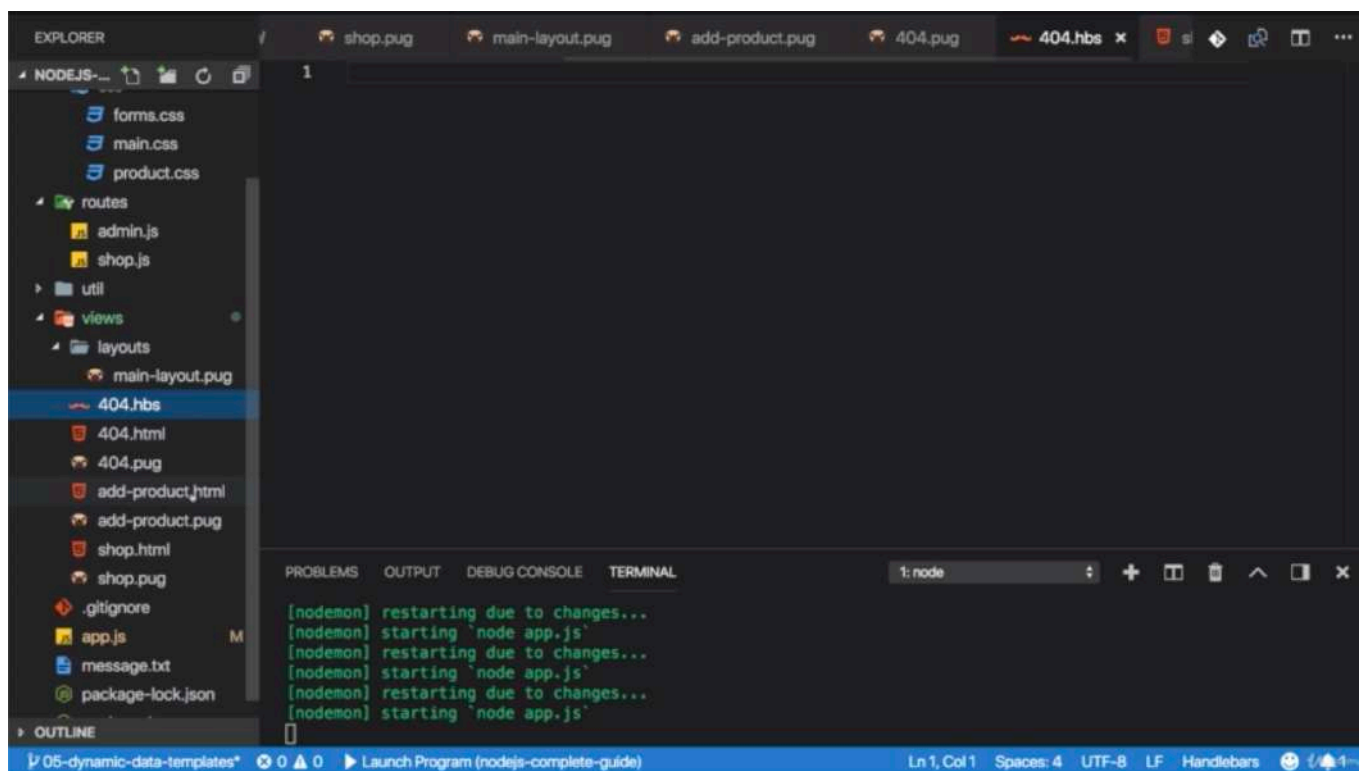


This screenshot shows the Visual Studio Code editor with the `app.js` file open. The file contains the following code:

```
1  const path = require('path');
2
3  const express = require('express');
4  const bodyParser = require('body-parser');
5  const expressHbs = require('express-handlebars');
6
7  const app = express();
8
9  app.engine('handlebars', expressHbs());
10 app.set('view engine', 'handlebars');
11 app.set('views', 'views');
12
13 const adminData = require('./routes/admin');
14 const shopRoutes = require('./routes/shop');
15
16 app.use(bodyParser.urlencoded({extended: false}));
17 app.use(express.static(path.join(__dirname, 'public')));
18
19 app.use('/admin', adminData.routes);
20 app.use(shopRoutes);
21
```

The Explorer sidebar on the left shows the project structure, including the `views` directory. The terminal at the bottom shows the following output:

```
at next (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express/lib/router/index.js:260:14)
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
```



This screenshot shows the Visual Studio Code editor with the `404.hbs` file open. The file contains the following code:

```
1
```

The Explorer sidebar on the left shows the project structure, including the `views` directory. The terminal at the bottom shows the following output:

```
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
```

The screenshot shows a VS Code editor with the following components:

- EXPLORER:** A file tree on the left showing the project structure. The 'views' folder is expanded, showing 'layouts' and '404.handlebars'. The 'app.js' file is selected.
- EDITOR:** The main area showing the content of 'app.js'. The code is as follows:

```
1 const path = require('path');
2
3 const express = require('express');
4 const bodyParser = require('body-parser');
5 const expressHbs = require('express-handlebars');
6
7 const app = express();
8
9 app.engine('hbs', expressHbs());
10 app.set('view engine', 'hbs');
11 app.set('views', 'views');
12
13 const adminData = require('./routes/admin');
14 const shopRoutes = require('./routes/shop');
15
16 app.use(bodyParser.urlencoded({extended: false}));
17 app.use(express.static(path.join(__dirname, 'public')));
18
19 app.use('/admin', adminData.routes);
20 app.use(shopRoutes);
21
```
- TERMINAL:** The bottom panel shows the output of the terminal. It displays the following messages:

```
at next (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express/lib/router/index.js:260:14)
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
```

- you can change the engine name





The screenshot shows a web browser with a dark green header containing the text 'Shop' and 'Add Product'. Below the header, the main content area displays 'Page Not Found!' in a large, bold, black font. To the right of the browser window, the Chrome DevTools Network tab is open, showing a list of network requests. The first request, 'add-productsdfds', is highlighted in red and has a status of '404'. The other requests are 'main.css', 'css?family=Open...', 'mem8YaGs126Mi...', 'mem5YaGs126Mi...', and 'ng-validate.js', all with a status of '200'. The 'Waterfall' column shows the timing of each request. Below the network tab, the Console tab is visible, showing the message 'Eager evaluation' and 'Preview return values in the Console without explicitly expanding expressions'.

Name	Status	Type	Size	Waterfall
add-productsdfds	404	doc...	894 B	
main.css	200	styl...	1.7 KB	
css?family=Open...	200	styl...	586 B	
mem8YaGs126Mi...	200	font	8.7 KB	
mem5YaGs126Mi...	200	font	8.6 KB	
ng-validate.js	200	script	(from disk...	

```

1 <!--PUG START-->
2 <html lang="en">
3
4 <head>
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <meta http-equiv="X-UA-Compatible" content="ie=edge">
8   <title>Page Not Found</title>
9   <link rel="stylesheet" href="/CSS/MAIN.CSS">
10 </head>
11
12 <body>
13   <header class="main-header">
14     <nav class="main-header__nav">
15       <ul class="main-header__item-list">
16         <li class="main-header__item"><a href="/">Shop</a></li>
17         <li class="main-header__item"><a href="/admin/add-product">Add Product</a></li>
18       </ul>
19     </nav>
20   </header>
21   <h1>Page Not Found</h1>
22 </body>
23
24 </html>

```

- if we inspect this, the doubly curly braces was replaced with the content that should be rendered.  
 

```

1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7 const expressHbs = require('express-handlebars')
8
9 const app = express();
10
11 /**'engine()' method register a new templating engine,
12  * in case, we are using one which is not built-in.
13  * pug was built-in kind of it.
14  * express-handlebars is not.
15  */
16
17 /**now we have to tell express that 'handlebars' is the name
18  * now what's the actual tool i should use?
19  * that is 'expressHbs' and that is object we just imported,
20  * that turns out to be a function we can call
21  * and we have to call, that initialize this engine.
22  * so this function returns the initialized view engine which we can assign to engine here.
23  *
24  */
25 app.engine('hbs', expressHbs())
26 /**in here, second argument have to be matched to first arguemnt in 'app.engine()' */
27 app.set('view engine', 'hbs');
28 app.set('views', 'views');
29
30 const adminData = require('./routes/admin');
31 const shopRoutes = require('./routes/shop');
32

```

```

33 app.use(bodyParser.urlencoded({extended: false}));
34 app.use(express.static(path.join(__dirname, 'public')));
35
36 app.use('/admin', adminData.routes);
37 app.use(shopRoutes);
38
39 app.use((req, res, next) => {
40     /**keep in mind that in app.js where we load that 404 pages,
41     * we are passing in {pageTitle: 'Page Not Found'}
42     * and the way you pass into templates doesn't change with the engine.
43     * this is always the same type of flow.
44     * you pass in an object with key-value pairs where the keys
45     * and therefore indirectly also the values are available in the template,
46     * the way you use it in a template differs from engine to engine.
47     */
48     res.status(404).render('404', {pageTitle: 'Page Not Found'})
49 });
50
51 app.listen(3000);
52

```

```

1 <!--./views/404.hbs-->
2
3 <!DOCTYPE html>
4 <html lang="en">
5
6 <head>
7     <meta charset="UTF-8">
8     <meta name="viewport" content="width=device-width, initial-scale=1.0">
9     <meta http-equiv="X-UA-Compatible" content="ie=edge">
10    <title>{{ pageTitle }}</title>
11    <link rel="stylesheet" href="/css/main.css">
12 </head>
13
14 <body>
15     <header class="main-header">
16         <nav class="main-header__nav">
17             <ul class="main-header__item-list">
18                 <li class="main-header__item"><a href="/">Shop</a></li>
19                 <li class="main-header__item"><a href="/admin/add-product">Add Product</a>
20             </ul>
21         </nav>
22     </header>
23     <h1>Page Not Found!</h1>
24 </body>
25

```

## \* Chapter 86: Converting Our Project To Handlebars

1. update
  - ./views/add-product.hbs
  - ./views/shop.hbs
  - ./routes/shop.js







EXPLORER

04.html shop.pug main-layout.pug add-product.pug 404.pug 404.hbs x

Ignore the layout for now, simply copy the entire document.

main.css

product.css

routes

admin.js

shop.js

util

views

layouts

main-layout.pug

404.hbs

404.html

404.pug

add-product.html

add-product.pug

shop.html

shop.pug

.gitignore

app.js

message.txt

package-lock.json

OUTLINE

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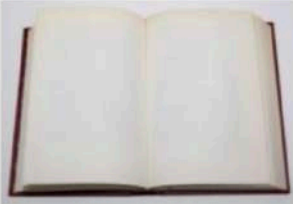
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Shop
Add Product

Great Book



\$19.99

A very interesting book about so many even more interesting things!

Add to Cart

Elements
Console
Network

Filter
Hide data URLs
XHR JS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	302	text...	193 B	
localhost	200	doc...	6.7 KB	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
data:image/jpeg...	200	jpeg	(from me...	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.7 KB	
mem5YaGs126Mi...	200	font	8.6 KB	

9 requests | 27.2 KB transferred | Finish: 276 ms | DOMContentLoaded: 126 ms | L...

Console
What's New

Highlights from the Chrome 68 update

Eager evaluation
Preview return values in the Console without silently executing expressions

```

1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7 const expressHbs = require('express-handlebars')
8
9 const app = express();
10
11 /**'engine()' method register a new templating engine,
12  * in case, we are using one which is not built-in.
13  * pug was built-in kind of it.
14  * express-handlebars is not.
15  */
16
17 /**now we have to tell express that 'handlebars' is the name
18  * now what's the actual tool i should use?
19  * that is 'expressHbs' and that is object we just imported,
20  * that turns out to be a function we can call
21  * and we have to call, that initialize this engine.
22  * so this function returns the initialized view engine which we can assign to engine here.
23  *
24  */
25 app.engine('hbs', expressHbs())
26 /**in here, second argument have to be matched to first arguemnt in 'app.engine()' */
27 app.set('view engine', 'hbs');
28 app.set('views', 'views');
29
30 const adminData = require('./routes/admin');
31 const shopRoutes = require('./routes/shop');
32
33 app.use(bodyParser.urlencoded({extended: false}));
34 app.use(express.static(path.join(__dirname, 'public')));

```



```

35
36 app.use('/admin', adminData.routes);
37 app.use(shopRoutes);
38
39 app.use((req, res, next) => {
40     /**keep in mind that in app.js where we load that 404 pages,
41     * we are passing in {pageTitle: 'Page Not Found'}
42     * and the way you pass into templates doesn't change with the engine.
43     * this is always the same type of flow.
44     * you pass in an object with key-value pairs where the keys
45     * and therefore indirectly also the values are available in the template,
46     * the way you use it in a template differs from engine to engine.
47     */
48     res.status(404).render('404', {pageTitle: 'Page Not Found'})
49 });
50
51 app.listen(3000);

```

```

1 //./routes/shop.js
2
3 const path = require('path');
4
5 const express = require('express');
6
7 const rootDir = require('../util/path');
8 const adminData = require('./admin');
9
10 const router = express.Router();
11
12 router.get('/', (req, res, next) => {
13     const products = adminData.products;
14     /**now we just pass the key 'hasProducts' which is true or false, the result of check.
15     * this is core difference between pug and express-handlebars.
16     */
17     res.render('shop', {prods: products, pageTitle: 'Shop', path: '/', hasProducts:
products.length > 0});
18 });
19
20 module.exports = router;

```

```

1 <!--./views/shop.hbs-->
2
3 <!DOCTYPE html>
4 <html lang="en">
5
6 <head>
7     <meta charset="UTF-8">
8     <meta name="viewport" content="width=device-width, initial-scale=1.0">
9     <meta http-equiv="X-UA-Compatible" content="ie=edge">
10     <title>{{ pageTitle }}</title>
11     <link rel="stylesheet" href="/css/main.css">
12     <link rel="stylesheet" href="/css/product.css">
13 </head>
14
15 <body>
16     <header class="main-header">
17         <nav class="main-header__nav">

```



```

18     <ul class="main-header__item-list">
19         <li class="main-header__item"><a class="active" href="/">Shop</a></li>
20         <li class="main-header__item"><a href="/admin/add-product">Add Product</a>
21     </li>
22 </ul>
23 </nav>
24 </header>
25 <main>
26     <!--block statement is our statement which are not just outputting some text
27     but wrap some contents that should be outputted conditionally or loop
28
29     express-handlebars support the output of keys that yields true or false.
30     this means we have to move that logic from template into our node express code
31     and pass the result of this check into the template. -->
32     {{#if hasProducts }}
33         <div class="grid">
34             <!--the codes inside of '#each prods' is repeated every thing(product) in
35             prods -->
36             {{#each prods}}
37                 <article class="card product-item">
38                     <header class="card__header">
39                         <!--now the problem is that how can we access this product.
40                         express-handlebars gives us only 1 way which gives us 'this'
41                         keyword
42                         which refers to the element in the array for the occurred
43                         iteration
44
45                         this.title always refer to every product
46                         which still a javascript object
47                         as the stored in the array in the admin.js file
48                         and the object 'title' key -->
49                         <h1 class="product__title">{{ this.title }}</h1>
50                     </header>
51                     <div class="card__image">
52                         
54                     </div>
55                     <div class="card__content">
56                         <h2 class="product__price">$19.99</h2>
57                         <p class="product__description">A very interesting book about so
58                         many even more interesting things!</p>
59                     </div>
60                     <div class="card__actions">
61                         <button class="btn">Add to Cart</button>
62                     </div>
63                 </article>
64             {{/each}}
65         </div>
66     {{ else }}
67         <h1>No Product Found!</h1>
68     <!--now we wanna close block in the end.
69     we do that with closing statement.-->
70     {{/if}}
71 </main>
72 </body>

```

## \* Chapter 87: Adding The Layout To Handlebars

1. update
  - app.js
  - ./views/layouts/main-layout.hbs
  - ./views/add-product.hbs
  - ./routes/shop.js
  - ./views/shop.hbs
  - ./routes/admin.js

```

1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7 const expressHbs = require('express-handlebars')
8
9 const app = express();
10
11 /**Handlebars does support layouts but it works a bit differently than it did with pug.
12  * First of all, we have to configure something.
13  * in app.js where we register our handlebars engine, we have to pass in the options.
14  *
15  * 'layoutDir' allows you to set up where my layouts live,
16  * so which folder i can find my layouts.
17  * and let's set this here to string which by default is 'views/layout'
18  * so you don't need to set this
19  * but you can set it kind of to reconfirm this but this is redundant.
20  * you only need to set it if you would store it somewhere else,
21  * like in lays or if you have a different default views folder.
22  *
23  * and you can also define a default layout that should be used for all files
24  * and i will just name it 'main'
25  * and that means you will have to have a main or main-layout in my case,
26  * you will have to have 'main-layout.hbs' file in your layouts folder.
27  */
28 app.engine(
29   'hbs',
30   expressHbs({
31     layoutsDir: 'views/layouts/',
32     defaultLayout: 'main-layout',
33     /** for whatever reason, you explicitly have to tell handlebars to do that
34      differently.
35      * you have to go to options
36      * and set the extension name which only applies to the layout and not to all files,
37      * just as this applies to all files but the layout, you have to set the extname
38      here to 'hbs'
39      * this is really strange but it's how express-handlebars works.
40      */
41     extname: 'hbs'
42   })
43 )
44 app.set('view engine', 'hbs');
```

```

43 app.set('views', 'views');
44
45 const adminData = require('./routes/admin');
46 const shopRoutes = require('./routes/shop');
47
48 app.use(bodyParser.urlencoded({extended: false}));
49 app.use(express.static(path.join(__dirname, 'public')));
50
51 app.use('/admin', adminData.routes);
52 app.use(shopRoutes);
53
54 app.use((req, res, next) => {
55     res.status(404).render('404', {pageTitle: 'Page Not Found'})
56 });
57
58 app.listen(3000);
59

```

```

1  //./routes/admin.js
2
3  const path = require('path');
4
5  const express = require('express');
6
7  const rootDir = require('../util/path');
8
9  const router = express.Router();
10
11 const products = [];
12
13 // /admin/add-product => GET
14 router.get('/add-product', (req, res, next) => {
15     /**i pass this path into my view,
16      * so that the view can find out what is the path for which this was loaded
17      */
18     res.render(
19         'add-product',
20         {
21             pageTitle: 'Add Product',
22             path: '/admin/add-product' ,
23             formsCSS: true,
24             productCSS: true,
25             activeAddProduct: true
26         })
27 });
28
29 // /admin/add-product => POST
30 router.post('/add-product', (req, res, next) => {
31     products.push({ title: req.body.title });
32     res.redirect('/');
33 });
34
35 exports.routes = router;
36 exports.products = products;

```

```

1 <!--./views/layouts/main-layout.hbs-->
2

```

```

3 <!DOCTYPE html>
4 <html lang="en">
5
6 <head>
7   <meta charset="UTF-8">
8   <meta name="viewport" content="width=device-width, initial-scale=1.0">
9   <meta http-equiv="X-UA-Compatible" content="ie=edge">
10  <title>{{ pageTitle }}</title>
11  <link rel="stylesheet" href="/css/main.css">
12  <!--however if you have some part like this
13  where you need to add some styling depending on the page you are on,
14  you will have to solve this differently, in a kind of a similar approach as we solved
the active class in pug
15
16  you will have to add an if statement here in main-layout
17  -->
18  {{#if formsCSS}}
19    <link rel="stylesheet" href="/css/forms.css">
20  {{/if}}
21  {{#if productCSS}}
22    <link rel="stylesheet" href="/css/product.css">
23  {{/if}}
24 </head>
25
26 <body>
27   <header class="main-header">
28     <nav class="main-header__nav">
29       <ul class="main-header__item-list">
30         <!--if 'activeShop' is true, then active will be rendered
31         but if 'activeAddProduct' is false. because we don't pass it at all
32         and therefore this would not be rendered.-->
33         <li class="main-header__item"><a class="{{#if activeShop }}active{{/if}}"
href="/">Shop</a></li>
34         <li class="main-header__item"><a class="{{#if activeAddProduct
}}active{{/if}}" href="/admin/add-product">Add Product</a></li>
35       </ul>
36     </nav>
37   </header>
38   <!--the only thing we can do is that
39   we can define a placeholder with 3 curly braces
40   then adding 'body' here
41   and you have to exactly use this placeholder
42   this is understood by handlebars
43   and you will then be able to target this in your views
44   that extend the layout automatically
45   because you set it as the default layout-->
46
47   <!--what should be injected into our 3 curly brace body tag in the main-layout
48   so whatever should get entered in this place should be added to shop.hbs and nothing
else.
49   -->
50   {{{ body }}}
51 </body>
52
53 </html>

```

```

1 <!--./views/add-product.hbs-->

```

```

2
3 <main>
4   <form class="product-form" action="/admin/add-product" method="POST">
5     <div class="form-control">
6       <label for="title">Title</label>
7       <input type="text" name="title" id="title">
8     </div>
9
10    <button class="btn" type="submit">Add Product</button>
11  </form>
12 </main>
13

```

```

1 //./routes/shop.js
2
3 const path = require('path');
4
5 const express = require('express');
6
7 const rootDir = require('../util/path');
8 const adminData = require('../admin');
9
10 const router = express.Router();
11
12 router.get('/', (req, res, next) => {
13   const products = adminData.products;
14   res.render('shop', {
15     prods: products,
16     pageTitle: 'Shop',
17     path: '/',
18     hasProducts: products.length > 0,
19     activeShop: true,
20     productCSS: true,
21     /**if you move over to shop.hbs,
22      * now this will use the layout by default,
23      * you could disable this by going to the render function for a given page
24      * and setting a special layout key and setting to false like below.
25      *
26      * layout: false
27      *
28      * 'layout' is special key that is understood by handlebars
29      * and it would not use the default layout. otherwise it will.
30      */
31   });
32 });
33
34 module.exports = router;

```

```

1 <!--./views/shop.hbs-->
2
3 <main>
4   {{#if hasProducts }}
5     <div class="grid">
6       {{#each prods}}
7         <article class="card product-item">
8           <header class="card_header">
9             <h1 class="product_title">{{ this.title }}</h1>

```

```

10     </header>
11     <div class="card__image">
12         
13     </div>
14     <div class="card__content">
15         <h2 class="product__price">$19.99</h2>
16         <p class="product__description">A very interesting book about so many
even more interesting things!</p>
17     </div>
18     <div class="card__actions">
19         <button class="btn">Add to Cart</button>
20     </div>
21 </article>
22 {{/each}}
23 </div>
24 {{ else }}
25 <h1>No Product Found!</h1>
26 {{/if}}
27 </main>

```

## \* Chapter 88: Working With EJS

1. update

- app.js
- ./views/404.ejs
- ./views/add-product.ejs
- ./views/shop.ejs

- EJS is a templating engine which is just like pug, supported out of the box. so we don't need to register the engine as we did it with handlebars.

- EJS has a nice mixture of the extended functionalities of pug, so not regarding the HTML, but regarding the javascript code.

- we will stick to EJS and all source code will therefore be provided with that templating engine.







ShopAdd Product

No Products Found!

ElementsConsoleNetwork

FilterHide data URLs

XHRJS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
localhost	200	doc...	997 B	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	877 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.9 KB	
mem5YaGs126Mi...	200	font	8.7 KB	

7 requests | 21.8 KB transferred | Finish: 378 ms | DOMContentLoaded: 137 ms | L...

ConsoleWhat's New

Highlights from the Chrome 68 update

Eager evaluation

Preview return values in the Console without explicitly executing expressions

ShopAdd Product

Title

First Book

First Book

Add Product

ElementsConsoleNetwork

FilterHide data URLs

XHRJS CSS Img Media Font Doc WS Manifest Other

Hit ⌘ R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	200	doc...	1.3 KB	
main.css	200	styl...	1.7 KB	
forms.css	200	styl...	599 B	
product.css	200	styl...	633 B	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.7 KB	

7 requests | 13.5 KB transferred | Finish: 1.91 s | DOMContentLoaded: 119 ms | Lo...

ConsoleWhat's New

Highlights from the Chrome 68 update

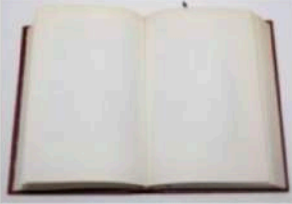
Eager evaluation

Preview return values in the Console without explicitly executing expressions



Shop
Add Product

Great Book



\$19.99  
A very interesting book about so many  
even more interesting things!

Add to Cart

Elements
Console
Network

Filter
Hide data URLs
XHR JS CSS Img Media Font Doc WS Manifest Other

Hit R to reload and capture filmstrip.

Name	Status	Type	Size	Waterfall
add-product	302	text...	193 B	
localhost	200	doc...	6.8 KB	
main.css	200	styl...	1.7 KB	
product.css	200	styl...	633 B	
data:image/jpeg...	200	jpeg	(from me...	
css?family=Open...	200	styl...	655 B	
ng-validate.js	200	script	(from disk...	
mem8YaGs126Mi...	200	font	8.7 KB	
mem5YaGs126Mi...	200	font	8.6 KB	

9 requests | 27.2 KB transferred | Finish: 263 ms | DOMContentLoaded: 124 ms | L...

Console
What's New

Highlights from the Chrome 68 update

Eager evaluation  
Preview return values in the Console without  
seriously executing expressions

```

1 //app.js
2
3 const path = require('path');
4
5 const express = require('express');
6 const bodyParser = require('body-parser');
7
8 const app = express();
9
10 app.set('view engine', 'ejs');
11 app.set('views', 'views');
12
13 const adminData = require('./routes/admin');
14 const shopRoutes = require('./routes/shop');
15
16 app.use(bodyParser.urlencoded({extended: false}));
17 app.use(express.static(path.join(__dirname, 'public')));
18
19 app.use('/admin', adminData.routes);
20 app.use(shopRoutes);
21
22 app.use((req, res, next) => {
23   res.status(404).render('404', {pageTitle: 'Page Not Found'})
24 });
25
26 app.listen(3000);

```

```

1 <!--./views/404.ejs-->
2
3
4 <!--EJS doesn't support layouts.-->
5
6 <!DOCTYPE html>
7 <html lang="en">
8

```

```

9 <head>
10     <meta charset="UTF-8">
11     <meta name="viewport" content="width=device-width, initial-scale=1.0">
12     <meta http-equiv="X-UA-Compatible" content="ie=edge">
13     <!--if you wanna output a value in the place we are placing this placeholder,
14     we add an equal sign right after the percentage sign
15     and then we close this with just a percentage sign and a greater sign
16
17     so we can output the data which our template receives
18     and just as before, the method of how we receive hasn't change.-->
19     <title><%= pageTitle %></title>
20     <link rel="stylesheet" href="/css/main.css">
21 </head>
22
23 <body>
24     <header class="main-header">
25         <nav class="main-header__nav">
26             <ul class="main-header__item-list">
27                 <li class="main-header__item"><a href="/">Shop</a></li>
28                 <li class="main-header__item"><a href="/admin/add-product">Add Product</a>
29             </ul>
30         </nav>
31     </header>
32     <h1>Page Not Found!</h1>
33 </body>
34
35 </html>

```

```

1 <!--./views/add-product.ejs-->
2
3 <!DOCTYPE html>
4 <html lang="en">
5
6 <head>
7     <meta charset="UTF-8">
8     <meta name="viewport" content="width=device-width, initial-scale=1.0">
9     <meta http-equiv="X-UA-Compatible" content="ie=edge">
10    <title><%= pageTitle %></title>
11    <link rel="stylesheet" href="/css/main.css">
12    <link rel="stylesheet" href="/css/forms.css">
13    <link rel="stylesheet" href="/css/product.css">
14 </head>
15
16 <body>
17     <header class="main-header">
18         <nav class="main-header__nav">
19             <ul class="main-header__item-list">
20                 <li class="main-header__item"><a href="/">Shop</a></li>
21                 <li class="main-header__item"><a class="active" href="/admin/add-
product">Add Product</a></li>
22             </ul>
23         </nav>
24     </header>
25
26     <main>
27         <form class="product-form" action="/admin/add-product" method="POST">

```

```

28     <div class="form-control">
29         <label for="title">Title</label>
30         <input type="text" name="title" id="title">
31     </div>
32
33     <button class="btn" type="submit">Add Product</button>
34 </form>
35 </main>
36 </body>
37
38 </html>

```

```

1 <!--./views/shop.ejs-->
2
3 <!DOCTYPE html>
4 <html lang="en">
5
6 <head>
7     <meta charset="UTF-8">
8     <meta name="viewport" content="width=device-width, initial-scale=1.0">
9     <meta http-equiv="X-UA-Compatible" content="ie=edge">
10    <title><%= pageTitle %></title>
11    <link rel="stylesheet" href="/css/main.css">
12    <link rel="stylesheet" href="/css/product.css">
13 </head>
14
15 <body>
16     <header class="main-header">
17         <nav class="main-header__nav">
18             <ul class="main-header__item-list">
19                 <li class="main-header__item"><a class="active" href="/">Shop</a></li>
20                 <li class="main-header__item"><a href="/admin/add-product">Add Product</a>
21             </li>
22         </ul>
23     </nav>
24
25     <main>
26         <!--if you use if statement,
27         then don't use equal sign because we don't directly output a value in this place.
28         instead we wanna enclose, wrap a certain block of code
29         and we do this by adding our opening and closing EJS Tags
30         then you can write vanilla javascript code.
31         we will get our 'prods key' in shop.js which holds our 'products' array
32         and this will be array and therefore we can write a normal javascript if statement
33
34         so in the end what you do is you write a normal if statement as you would write it
35         in a javascript file,
36         just that the part inside of that statement is not javascript code
37         but this HTML code and i find this to be very straightforward and easy to
38         understand-->
39
40         <% if (prods.length > 0) { %>
41         <div class="grid">
42             <% for(let product of prods) { %>
43             <article class="card product-item">
44                 <header class="card__header">
45                     <h1 class="product__title"><%= product.title %></h1>

```

```

43     </header>
44     <div class="card__image">
45         
46     </div>
47     <div class="card__content">
48         <h2 class="product__price">$19.99</h2>
49         <p class="product__description">A very interesting book about so many
even more interesting things!</p>
50     </div>
51     <div class="card__actions">
52         <button class="btn">Add to Cart</button>
53     </div>
54 </article>
55 <% } %>
56 </div>
57 <% } else { %>
58     <h1>No Product Found!</h1>
59 <% } %>
60 </main>
61 </body>
62
63 </html>

```

## \* Chapter 89: Working On The Layout With Partial

1. update

- ./views/404.ejs
- ./views/add-product.ejs
- ./views/shop.ejs
- ./views/includes/head.ejs
- ./views/includes/navigation.ejs
- ./views/includes/end.ejs

- EJS doesn't have layouts, but we can use so-called 'partials' or 'includes', by the way that pug and handlebars also know

- The idea is that you have some code blocks which you reuse in different parts of your templates and you can therefore just share them across your templates.

- instead of having one master layout where you put your individual view parts into, you have a couple of separated shared view parts which you can merge into the views you are creating





The screenshot shows the VS Code editor with the file explorer on the left displaying the project structure. The main editor window shows the content of `404.ejs`:

```

1 <%= include('includes/head.ejs') %>
2 </head>
3
4 <body>
5   <header class="main-header">
6     <nav class="main-header__nav">
7       <ul class="main-header__item-list">
8         <li class="main-header__item"><a href="/">Shop</a></li>
9         <li class="main-header__item"><a href="/admin/add-product">Add Product</a></li>
10      </ul>
11    </nav>
12  </header>
13  <h1>Page Not Found!</h1>
14 </body>
15
16 </html>

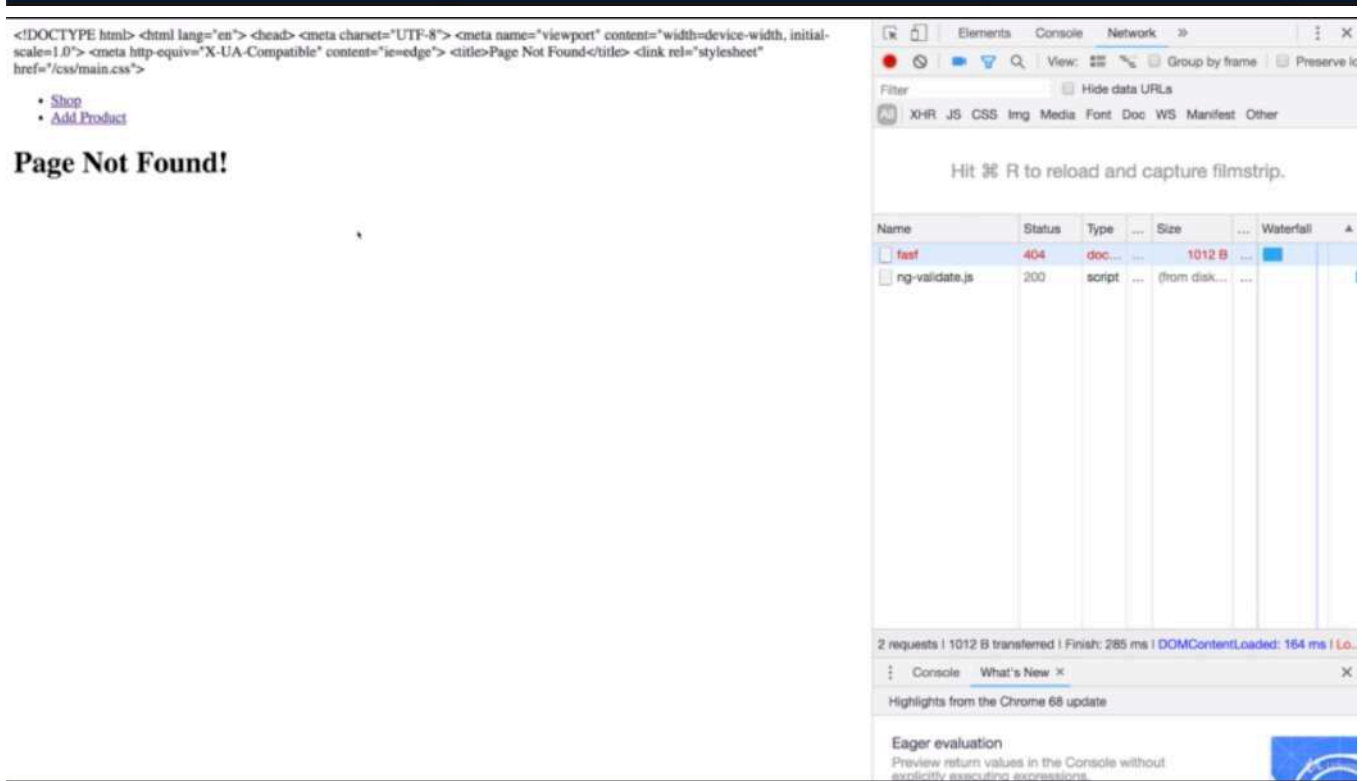
```

The terminal at the bottom shows the following output:

```

at /Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express/lib/router/index.js:281:22
at Function.process_params (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express/lib/router/index.js:335:12)
at next (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express/lib/router/index.js:275:10)

```



- if you use equal sign here, now it gets rendered as text and this is what i meant. this is escaping the values. so it's not rendering it.

```

1 <!--./views/404.ejs-->
2
3 <!--i need to import head.ejs
4   and this can be imported into the 404.ejs file
5   by adding our EJS syntax
6   now with a minus -
7   and you use that if you wanna output unescaped HTML code,
8   that by the way means that by default, if you have this syntax with the equal sign
9   and you would render some variable that holds a string that holds HTML code,
10  it would not render that HTML code, but render it as text to avoid cross-site scripting
   attacks,

```

11 with a minus you can avoid this and really render the HTML code  
12  
13 'include()' keyword allows us to include a certain element into this page  
14 in 'include()', you add a string which holds the path to the file you wanna include  
15 and you have to enter this path as it's seen from the file you are in.  
16 so the 404.ejs file is in the views folder. so the file we wanna include is in the  
subfolder.

```
17 -->
18 <%- include('includes/head.ejs') %>
19 </head>
20
21 <body>
22   <%- include('includes/navigation.ejs') %>
23   <h1>Page Not Found</h1>
24
25 <%- include('includes/end.ejs') %>
```

```
1 <!--./views/add-product.ejs-->
2
3 <%- include('includes/head.ejs') %>
4 <!--these 2 links which are exclusive to this page here,
5     so which we really only need there
6     but instead of the other part, we can now include our 'includes' folder
7     and there -->
8   <link rel="stylesheet" href="/css/forms.css">
9   <link rel="stylesheet" href="/css/product.css">
10 </head>
11
12 <body>
13 <%- include('includes/navigation.ejs') %>
14   <main>
15     <form class="product-form" action="/admin/add-product" method="POST">
16       <div class="form-control">
17         <label for="title">Title</label>
18         <input type="text" name="title" id="title">
19       </div>
20
21       <button class="btn" type="submit">Add Product</button>
22     </form>
23   </main>
24
25 <%- include('includes/end.ejs') %>
```

```
1 <!--./views/shop.ejs-->
2
3 <%- include('includes/head.ejs') %>
4   <link rel="stylesheet" href="/css/product.css">
5 </head>
6
7 <body>
8   <%- include('includes/navigation.ejs') %>
9
10   <main>
11     <% if (prods.length > 0) { %>
12     <div class="grid">
13       <% for(let product of prods) { %>
14       <article class="card product-item">
```

```

15     <header class="card_header">
16         <h1 class="product_title"><%= product.title %></h1>
17     </header>
18     <div class="card_image">
19         
20     </div>
21     <div class="card_content">
22         <h2 class="product_price">$19.99</h2>
23         <p class="product_description">A very interesting book about so many
even more interesting things!</p>
24     </div>
25     <div class="card_actions">
26         <button class="btn">Add to Cart</button>
27     </div>
28 </article>
29 <% } %>
30 </div>
31 <% } else { %>
32     <h1>No Product Found!</h1>
33 <% } %>
34 </main>
35 <%- include('includes/end.ejs') %>

```

```

1 <!--./views/includes/head.ejs-->
2
3 <!DOCTYPE html>
4 <html lang="en">
5
6 <head>
7     <meta charset="UTF-8">
8     <meta name="viewport" content="width=device-width, initial-scale=1.0">
9     <meta http-equiv="X-UA-Compatible" content="ie=edge">
10    <title><%= pageTitle %></title>
11    <link rel="stylesheet" href="/css/main.css">

```

```

1 <!--./views/includes/navigation.ejs-->
2
3 <header class="main-header">
4     <nav class="main-header__nav">
5         <ul class="main-header__item-list">
6             <!--since i'm inside the class text,
7              i will basically just add the active class, this is how you can read this
8              always keep in mind that this simply replaced with text when template is
rendered
9              so this will just become class equal active.-->
10            <li class="main-header__item"><a class="<%= path === '/' ? 'active' : '' %>"
href="/">Shop</a></li>
11            <li class="main-header__item"><a class="<%= path === '/admin/add-product' ?
'active' : '' %>" href="/admin/add-product">Add Product</a></li>
12        </ul>
13    </nav>
14 </header>
15

```

```

1 <!--./views/includes/end.ejs-->
2

```



```
3 </body>
```

```
4
```

```
5 </html>
```