

# Dynamic Content & Templates

---

Rendering more than Static HTML

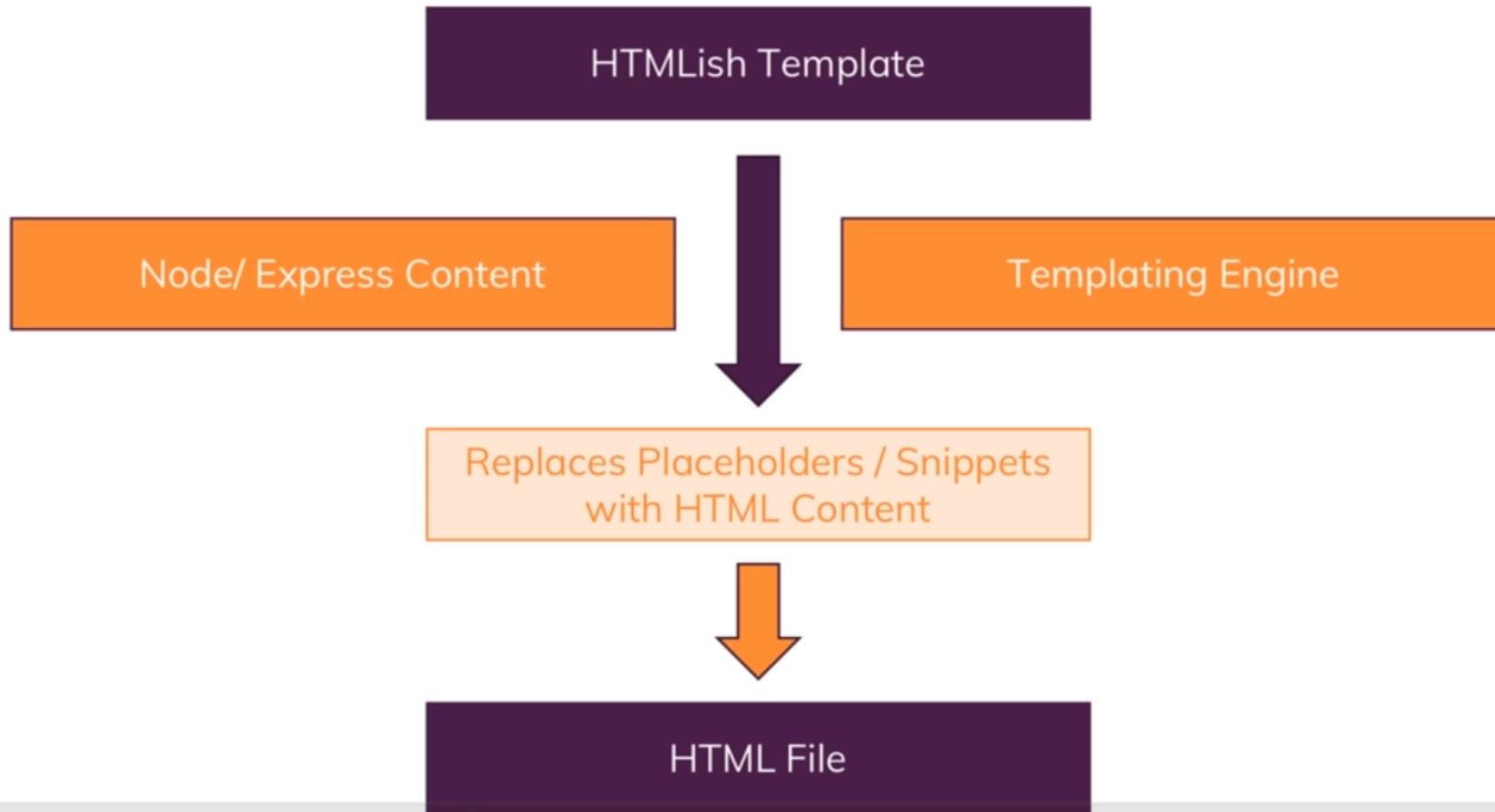
# What's In This Module?

Managing Data (without a Database)

Render Dynamic Content in our Views

Understanding Templating Engines

# Templating Engines



# Available Templating Engines

EJS

Pug (Jade)

Handlebars

```
<p><%= name %></p>
```

```
p #{{name}}
```

```
<p>{{ name }}</p>
```

Use normal HTML and plain JavaScript in your templates

Use minimal HTML and custom template language

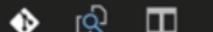
Use normal HTML and custom template language

EXPLORER

admin.js

shop.js

app.js



## NODEJS-COMPLETE-GUIDE

- › .vscode
- › node\_modules
- public
  - css
    - forms.css
    - main.css
    - product.css
- routes
  - admin.js
  - shop.js
- › util
- views
  - 404.html
  - add-product.html
  - shop.html

```
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 
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
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
(0)                                     :: fetchMetadata: sill resolveWithNewModule right-align@0.1.3 checking installable status
```



## NODEJS-COMPLETE-GUIDE

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- util

- views
  - 404.html
  - add-product.html
  - shop.html
- .gitignore

- app.js

- message.txt

- package-lock.json M

- package.json M

```
1 const path = require('path');
2
3 const express = require('express');
4 const bodyParser = require('body-parser');
5
6 const app = express();
7
8 app.set('view engine', 'pug'); ← Telling Express to compile dynamic
9 app.set('views', 'views');| content with pug. ← Explicitly where to find
10
11 const adminData = require('./routes/admin');
12 const shopRoutes = require('./routes/shop');
13
14 app.use(bodyParser.urlencoded({extended: false}));
15 app.use(express.static(path.join(__dirname, 'public')));
16
17 app.use('/admin', adminData.routes);
18 app.use(shopRoutes);
19
20 app.use((req, res, next) => {
21   res.status(404).sendFile(path.join(__dirname, 'views', '404.html'));
22 })
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: bash

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!

NODEJS... .vscode node\_modules public css forms.css main.css product.css routes admin.js shop.js util views 404.html add-product.html shop.html shop.pug .gitignore app.js message.txt package-lock.json package.json

```
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 My Shop
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
```

Content not rendering yet

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

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

OUTLINE

EXPLORER

admin.js

shop.js

app.js

shop.pug

message.txt



## NODEJS-COMPLETE-GUIDE

- .vscode
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- util
- views
  - ⌚ 404.html
  - ⌚ add-product.html
  - ⌚ shop.html
  - ⌚ shop.pug

```
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
```

Remove  
this

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

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

## OUTLINE

弼 05-dynamic-data-templates\*



▶ Launch Program (nodejs-complete-guide)

Ln 11, Col 3 (101 selected)

Spaces: 2

UTF-8

LF

JavaScript

Prettier: ✓



## NODEJS-COMPLETE-GUIDE

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- routes
  - js admin.js
  - js shop.js
- › util
- views
  - 404.html
  - add-product.html
  - shop.html
  - shop.pug

```
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
```



Render the mentioned default template-engine

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

> nodemon app.js

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

## OUTLINE

## NODEJS-COMPLETE-GUIDE

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  - ▷ util
  - ▷ views
    - ⌚ 404.html
    - ⌚ add-product.html
    - ⌚ shop.html
    - ⌚ shop.pug

```
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   const products = adminData.products;
12   res.render('shop', {prods: products, docTitle: 'Shop'});
13 });
14
15 module.exports = router;
16
```

fields of dynamic content accessed  
by pug templates (in 'views')

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



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



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  - 404.html
  - add-product.html
  - shop.html
  - shop.pug

```
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} ← Yellow arrow points here
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
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



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

## OUTLINE

## NODEJS-COMPLETE-GUIDE

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- views
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  - shop.html
- shop.pug M
- .gitignore
- app.js
- message.txt
- package-lock.json
- package.json

```
16          li.main-header__item
17              a(href="/admin/add-product") Add Product
18
19      main
20          if prods.length > 0
21              .grid
22                  each product in prods
23                      article.card.product-item
24                          header.card__header
25                              h1.product_title #{product.title}
26                          div.card__image
27                              img(src="data:image/jpeg;base64,/9j/4AAQSkZJRgABAQAAAQABAAAD/2wC
28                          div.card__content
29                              h2.product_price $19.99
30                              p.product_description A very interesting book about so many ev
31                          .card_actions
32                              button.btn Add to Cart
33
34      else
35          h1 No Products
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
at Function.render (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/e
xpress/lib/application.js:592:3)
at ServerResponse.render (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_mod
ules/express/lib/response.js:1008:7)
at router.get (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/routes/shop.js:12:7
)
)
```



## NODEJS-COMPLETE-GUIDE

- css
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  - main.css
  - product.css

- routes
  - admin.js
  - shop.js

- util

- views

- layouts
  - main-layout.pug
  - 404.html
  - 404.pug
  - add-product.html
  - add-product.pug
  - shop.html
  - shop.pug

- .gitignore

- app.js

- message.txt

- package-lock.json

- OUTLINE

```
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 Page not Found
8          link(rel="stylesheet", href="/css/main.css")
9          block styles ←
10         body
11             header.main-header
12                 nav.main-header__nav
13                     ul.main-header__item-list
14                         li.main-header__item
15                             a(href="/") Shop
16                         li.main-header__item
17                             a(href="/admin/add-product") Add Product
18             block content ←
```

Layouts

HookD

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

```
at router.get (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/routes/shop.js:12:7)
)
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
```

## NODEJS-COMPLETE-GUIDE

- css
  - forms.css
  - main.css
  - product.css

- routes
  - admin.js
  - shop.js
- util
- views
  - layouts
    - main-layout.pug
    - 404.html
    - 404.pug
    - add-product.html
    - add-product.pug
    - shop.html
    - shop.pug

- .gitignore
- app.js
- message.txt
- package-lock.json

## OUTLINE

```
1 | extends layouts/main-layout.pug
2 |
3 | block content
4 |   h1 Page Not Found!
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

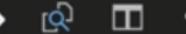
1: node



```
at router.get (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/routes/shop.js:12:7)
)
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
[nodemon] restarting due to changes...
[nodemon] starting `node app.js`
```

EXPLORER

app.js x 404.html shop.pug main-layout.pug add-product.pug 404.pug



## NODEJS-COMPLETE-GUIDE

forms.css  
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 M

message.txt

package-lock.json

## OUTLINE

```
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
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
[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`
```



EXPLORER

app.js

404.html

shop.pug

main-layout.pug

add-product.pug

404.pug



## NODEJS-COMPLETE-GUIDE

- forms.css
- 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 M

- message.txt

- package-lock.json

## OUTLINE

```
1 const path = require('path');
2
3 const express = require('express');
4 const bodyParser = require('body-parser');
5 const expressHbs = require('express-handlebars'); → view engine is not auto-
6
7 const app = express();
8
9 app.engine('hbs', expressHbs()); ← register for handlebars
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);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
[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`
```



- ◀ NODEJS...
- css
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  - product.css
- routes
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  - shop.js
- util
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    - main-layout.pug
  - 404.hbs
  - 404.html
  - 404.pug
  - add-product.html
  - add-product.pug
  - shop.html
  - shop.pug → development\teaching\udemy\nodejs-complete-guide\views\shop.pug
- .gitignore
- app.js M
- message.txt
- package-lock.json

```
1  <!DOCTYPE html>
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>{{ pageTitle }}</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>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
[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`
```

## NODEJS-COMPLETE-GUIDE

product.css

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admin.js

shop.js

util

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main-layout.pug

404.hbs

404.html

404.pug

add-product.hbs

add-product.html

add-product.pug

shop.hbs

shop.html

shop.pug

.gitignore

app.js

message.txt

package-lock.json

package.json

## OUTLINE

```

15   <nav class="main-header__nav">
16     <ul class="main-header__item-list">
17       <li class="main-header__item"><a class="active" href="/">Shop</a></li>
18       <li class="main-header__item"><a href="/admin/add-product">Add Product</a></li>
19     </ul>
20   </nav>
21 </header>
22
23 <main>
24   <div class="grid">
25     {{#}}
26       <article class="card product-item">
27         <header class="card__header">
28           <h1 class="product__title">Great Book</h1>
29         </header>
30         <div class="card__image">
31           
34           <h2 class="product__price">$19.99</h2>
35           <p class="product__description">A very interesting book about so many even</p>

```

Block statements are not simply  
output the text but wraps content  
that should be output conditionally  
or in a loop.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

+ ×

```

[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`

```

## NODEJS-COMPLETE-GUIDE

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404.hbs

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404.pug

add-product.hbs

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add-product.pug

shop.hbs

shop.html

shop.pug

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package.json

OUTLINE

```

5  utDir = require('../util/path');
6  minData = require('./admin');
7
8  router = express.Router();
9
10 set('/', (req, res, next) => {
11   products = adminData.products;
12   res.render('shop', {prods: products, pageTitle: 'Shop', path: '/', hasProducts: products.length > 0})
13
14
15 exports = router;
16

```

The blocks in next slides  
only takes singular values.

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

+ - ×

```

at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)
    at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
        at ExpressHandlebars.<anonymous> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:173:21)
    
```

## NODEJS-COMPLETE-GUIDE

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404.pug

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add-product.html

add-product.pug

shop.hbs

shop.html

shop.pug

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package-lock.json

package.json

OUTLINE

```

15   <nav class="main-header__nav">
16     <ul class="main-header__item-list">
17       <li class="main-header__item"><a class="active" href="/">Shop</a></li>
18       <li class="main-header__item"><a href="/admin/add-product">Add Product</a></li>
19     </ul>
20   </nav>
21 </header>
22
23 <main>
24   {{#if prods.length > 0 }} → Errort
25     <div class="grid">
26       <article class="card product-item">
27         <header class="card__header">
28           <h1 class="product__title">Great Book</h1>
29         </header>
30         <div class="card__image">
31           
34           <h2 class="product__price">$19.99</h2>
35           <div class="product__description">A very interesting book about so many eve...

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

+ ×

```

[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`

```

## NODEJS-COMPLETE-GUIDE

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404.pug

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add-product.html

add-product.pug

shop.hbs

shop.html

shop.pug

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package.json

## OUTLINE

```
19          </ul>
20      </nav>
21  </header>
22
23  <main>
24      {{#if hasProducts }} → Works
25      <div class="grid">
26          {{#each prods}}
27              <article class="card product-item">
28                  <header class="card__header">
29                      <h1 class="product__title">{{ this.title }}</h1>
30                  </header>
31                  <div class="card__image">
32                      
35                      <h2 class="product__price">$19.99</h2>
36                      <p class="product__description">A very interesting book about so man
37                  </div>
38                  <div class="card__actions">
39                      <button class="btn">Add to Cart</button>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

```
at ret (/Users/mschwarzmueller/devel Cmd + click to follow link /my/nodejs-complete-guide/node_modules/handlebars/di
st/cjs/handlebars/compiler/compiler.js:52+10)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-gu
ide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at ExpressHandlebars.<anonymous> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/
node_modules/express-handlebars/lib/express-handlebars.js:173:21)
```

0:05:59

EXPLORER

main-layout.pug

add-product.pug

404.pug

404.hbs

shop.html

shop.hbs

...

## NODEJS-COMPLETE-GUIDE

product.css

## routes

admin.js

shop.js

## util

## views

## layouts

main-layout.pug

404.hbs

404.html

404.pug

add-product.hbs

add-product.html

add-product.pug

shop.hbs

shop.html

shop.pug

.gitignore

app.js

message.txt

package-lock.json

package.json

0:06:14

▶

OUTLINE

```
31   <div class="card__image">
32     
35     <h2 class="product__price">$19.99</h2>
36     <p class="product__description">A very interesting book about so ma
37   </div>
38   <div class="card__actions">
39     <button class="btn">Add to Cart</button>
40   </div>
41 </article>
42 {{/each}} I
43 </div>
44 {{ else }} → No Products Found!
45 <h1>No Products Found!</h1>
46 {{/if}}
47 </main>
48 </body>
49
50 </html>
```

No '#' before else

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at ExpressHandlebars.<anonymous> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:173:21)
```

0:01:27

## NODEJS-COMPLETE-GUIDE

product.css

## routes

admin.js

shop.js

## util

## views

## layouts

main-layout.pug

404.hbs

404.html

404.pug

add-product.hbs

add-product.html

add-product.pug

shop.hbs

shop.html

shop.pug

.gitignore

app.js

message.txt

package-lock.json

package.json

## OUTLINE

```

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', compilerOptions);
11 app.set('view engine', defaultLayout);
12 app.set('view engine', extname);
13 const adminData = handlebars;
14 const shopRoutes = helpers;
15 app.use(bodyParser, partialsDir);
16 app.use(express, dirname);
17 app.use('/admin', app);
18 app.use(shopRoutes, bodyParser);
19 app.use('/admin', engine);
20
21

```

(property) ExphbsOptions.extname?: string ×

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

+ - ×

```

at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at ExpressHandlebars.<anonymous> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:173:21)

```

## NODEJS-COMPLETE-GUIDE

## routes

admin.js

shop.js M

## util

## views

## layouts

main-layout.... U

main-layout.pug

404.hbs

404.html

404.pug

add-product.hbs

add-product.html

add-product.pug

shop.hbs M

shop.html

shop.pug

.gitignore

app.js M

message.txt

package-lock.json

package.json

## OUTLINE

```

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(
10   'hbs',
11   expressHbs({ layoutsDir: 'views/layouts/', defaultLayout: 'main-layout', extname: 'hbs' })
12 );
13 app.set('view engine', 'hbs');
14 app.set('views', 'views');
15
16 const adminData = require('./routes/admin');
17 const shopRoutes = require('./routes/shop');
18
19 app.use(bodyParser.urlencoded({ extended: false }));
20 app.use(express.static(path.join(__dirname, 'public')));
21

```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



[nodemon] restarting due to changes...

[nodemon] starting `node app.js`

Error: ENOENT: no such file or directory, open '/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/views/layouts/main-layout.handlebars'

Error: ENOENT: no such file or directory, open '/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/views/layouts/main-layout.handlebars'

Note: default is → .handlebars  
(glitch :-)

## NODEJS-COMPLETE-GUIDE

- .vscode
- node\_modules
- public
  - css
    - forms.css
    - main.css
    - product.css

- routes
  - js admin.js
  - js shop.js

- util

- views
  - layouts
    - ~ main-layout.... U
  - main-layout.pug
  - 404.hbs

- 404.html
- 404.pug
- add-product.hbs
- add-product.html
- add-product.pug
- shop.hbs

## OUTLINE

```
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>{{ pageTitle }}</title>
9   <link rel="stylesheet" href="/css/main.css">
10  | 
11  </head>
12
13  <body>
14    <header class="main-header">
15      <nav class="main-header__nav">
16          <ul class="main-header__item-list">
17              <li class="main-header__item"><a href="/">Shop</a></li>
18              <li class="main-header__item"><a href="/admin/add-product">Add Product</a></li>
19          </ul>
20      </nav>
21    </header>
22    {{ body }}
23  </body>
```

There is nothing for styles

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

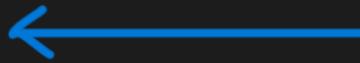


```
at ret (/Users/mschwarz Cmd + click to follow link t/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/di
st/cjs/handlebars/compiler/compiler.js:24:10)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-gu
ide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at ExpressHandlebars.<anonymous> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/
node_modules/express-handlebars/lib/express-handlebars.js:173:21)
```

0:05:46

NODEJS... .vscode node\_modules public css forms.css main.css product.css routes admin.js shop.js util views layouts main-layout.... main-layout.pug 404.hbs 404.html 404.pug add-product.hbs add-product.html add-product.pug shop.hbs

```
0 <meta name="viewport" content="width=device-width, initial-scale=1.0">
1 <meta http-equiv="X-UA-Compatible" content="ie=edge">
2 <title>{{ pageTitle }}</title>
3 <link rel="stylesheet" href="/css/main.css">
4 {{#if formsCSS}}
5     <link rel="stylesheet" href="/css/forms.css">
6 {{/if}}
7 {{#if productCSS}}
8     <link rel="stylesheet" href="/css/product.css">
9 {{/if}}
10 </head>
11
12
13
14
15
16 </body>
17
18 <header class="main-header">
19     <nav class="main-header__nav">
20         <ul class="main-header__item-list">
21             <li class="main-header__item"><a class="{{#if activeShop }}active{{/if}}> href=
22             <li class="main-header__item"><a class="{{#if activeAddProduct }}active{{/if}}>
23         </ul>
24     </nav>
25 </header>
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/di
st/cjs/handlebars/compiler/compiler.js:524:18)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-gu
ide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at ExpressHandlebars.<anonymous> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/
node_modules/express-handlebars/lib/express-handlebars.js:173:21)
[]
```



## NODEJS-COMPLETE-GUIDE

- public
- css
  - forms.css
  - main.css
  - product.css

- routes
  - admin.js
  - shop.js

- util
- views
  - main-layout....
  - main-layout.pug
- 404.hbs
- 404.html
- 404.pug

- add-product.hbs
- add-product.html
- add-product.pug
- shop.hbs
- shop.html
- shop.pug

## OUTLINE

```

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   const products = adminData.products;
12   res.render('shop', {
13     prods: products,
14     pageTitle: 'Shop',
15     path: '/',
16     hasProducts: products.length > 0,
17     activeShop: true, ← green arrow
18     productCSS: true, ← pink arrow
19     layout: false ← blue arrow
20   });
21 });
22
23 module.exports = router;
24

```

X means doesn't use default layout.  
(Here we remove this)

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

+ - × ^ ▲ □

```

at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at Express Cmd + click to follow link mouseover (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:173:21)

```

## NODEJS-COMPLETE-GUIDE

## routes

admin.js  
shop.js

## util

## views

layouts  
main-layout.... U  
main-layout.pug  
404.hbs  
404.html  
404.pug  
add-product.hbs  
add-product.html  
add-product.pug

shop.hbs  
shop.html  
shop.pug  
.gitignore

app.js  
message.txt  
package-lock.json  
package.json

```
1 <main>
2   {{#if hasProducts}}
3     <div class="grid">
4       {{#each prods}}
5         <article class="card product-item">
6           <header class="card__header">
7             <h1 class="product__title">{{ this.title }}</h1>
8           </header>
9           <div class="card__image">
10             
12           <div class="card__content">
13             <h2 class="product__price">$19.99</h2>
14             <p class="product__description">A very interesting book about so ma
15           </div>
16           <div class="card__actions">
17             <button class="btn">Add to Cart</button>
18           </div>
19         </article>
20       {{/each}}
21     </div>
```

All new & logic part

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

File Edit View Insert Cell Kernel Help

```
at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at Express Cmd + click to follow link mouse (</Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:173:21)
```



## NODEJS-COMPLETE-GUIDE

## routes

admin.js

shop.js

## util

## views

## layouts

main-layout.... U

main-layout.pug

404.hbs

404.html

404.pug

add-product.hbs

add-product.html

add-product.pug

shop.hbs

shop.html

shop.pug

.gitignore

app.js

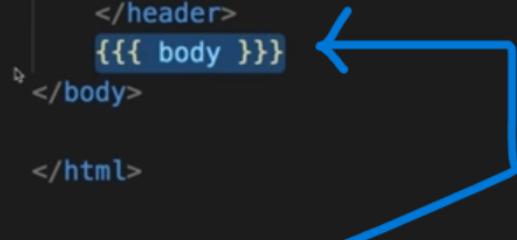
message.txt

package-lock.json

package.json

## OUTLINE

```
14     <link rel="stylesheet" href="/css/product.css">
15   {{/if}}
16 </head>
17
18 <body>
19   <header class="main-header">
20     <nav class="main-header__nav">
21       <ul class="main-header__item-list">
22         <li class="main-header__item"><a class="{{#if activeShop }}active{{/if}}> href=
23           <li class="main-header__item"><a class="{{#if activeAddProduct }}active{{/if}}>
24         </ul>
25       </nav>
26     </header>
27     {{{ body }}}
28   </body>
29
30 </html>
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
at ret (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)
at ExpressHandlebars._renderTemplate (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:247:12)
at Express Cmd + click to follow link mouse> (/Users/mschwarzmueller/development/teaching/udemy/nodejs-complete-guide/node_modules/express-handlebars/lib/express-handlebars.js:173:21)
```

0:02:40

- NODEJS...
  - main.css
  - product.css
- routes
  - admin.js
  - shop.js
- util
- views
  - layouts
    - main-layout.hbs
    - main-layout.pug
  - 404.hbs
  - 404.html
  - 404.pug
  - add-product.hbs
  - add-product.html
  - add-product.pug
  - shop.hbs
  - shop.html
  - shop.pug
- .gitignore
- app.js
- message.txt

- OUTLINE

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

uses js as it is &  
not uses Layout

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

> nodemon app.js

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

## NODEJS-COMPLETE-GUIDE

- CSS
  - forms.css
  - main.css
  - product.css

## routes

- admin.js
- shop.js

## util

## views

- layouts
  - main-layout.hbs
  - main-layout.pug
- 404.ejs
- 404.hbs
- 404.html
- 404.pug
- add-product.hbs
- add-product.html
- add-product.pug
- shop.hbs
- shop.html
- shop.pug

```
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><%= pageTitle %></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
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



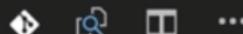
> nodemon app.js

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

## OUTLINE

EXPLORER

shop.js app.js add-product.hbs shop.pug shop.ejs main-layout.pug



## NODEJS-COMPLETE-GUIDE

- css forms.css main.css product.css

- routes admin.js shop.js

- util

- views

- layouts main-layout.hbs main-layout.pug
- 404.ejs
- 404.hbs
- 404.html
- 404.pug

- add-product.ejs

- add-product.hbs
- add-product.html
- add-product.pug

- shop.ejs

```
19 </ul>
20 </nav>
21 </header>
22
23 <main>
24   <% if (prods.length > 0) { %>
25     <div class="grid">
26       <% for (let product of prods) { %>
27         <article class="card product-item">
28           <header class="card__header">
29             <h1 class="product__title"><%= product.title %></h1>
30           </header>
31           <div class="card__image">
32             
34           </div>
35           <div class="card__content">
36             <h2 class="product__price">$19.99</h2>
37             <p class="product__description">A very interesting book about so man
38           </div>
39           <div class="card__actions">
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
      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)
```

## NODEJS-COMPLETE-GUIDE

- css
- forms.css
- main.css
- product.css

## routes

- admin.js
- shop.js

## util

## views

- layouts
- main-layout.hbs
- main-layout.pug

- 404.ejs

- 404.hbs

- 404.html

- 404.pug

- add-product.ejs

- add-product.hbs

- add-product.html

- add-product.pug

- shop.ejs

```
26  <% for (let product of prods) { %>
27      <article class="card product-item">
28          <header class="card__header">
29              <h1 class="product__title">Great Book</h1>
30          </header>
31          <div class="card__image">
32              
34          </div>
35          <div class="card__content">
36              <h2 class="product__price">$19.99</h2>
37              <p class="product__description">A very interesting book about so many
38          </div>
39          <div class="card__actions">
40              <button class="btn">Add to Cart</button>
41          </div>
42      </article>
43      <% } %> → closing tags are much as it is is.
44  </div>
45  <% } else { %>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
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)
```

## NODEJS-COMPLETE-GUIDE

CSS

forms.css

main.css

product.css

## routes

admin.js

shop.js

## util

## views

## layouts

main-layout.hbs

main-layout.pug

404.ejs

404.hbs

404.html

404.pug

add-product.ejs

add-product.hbs

add-product.html

add-product.pug

shop.ejs

```
32          alt="A Book">
33      </div>
34      <div class="card__content">
35          <h2 class="product__price">$19.99</h2>
36          <p class="product__description">A very interesting book about so many e
37      </div>
38      <div class="card__actions">
39          <button class="btn">Add to Cart</button>
40      </div>
41  </article>
42  </div>
43  <% } else { %>
44      <h1>No Products Found!</h1>
45  <% } %>
46  </main>
47  </body>
48
49  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
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)
```

0:02:00

## NODEJS-COMPLETE-GUIDE

- main.css
- product.css

- routes
  - admin.js
  - shop.js

- util

- views

- includes
  - end.ejs
  - head.ejs
  - navigation.ejs

- layouts
  - main-layout.hbs
  - main-layout.pug

- 404.ejs

- 404.hbs

- 404.html

- 404.pug

- add-product.ejs

- add-product.hbs

- add-product.html

## OUTLINE

```
1 <%- include('includes/head.ejs') %>
2 </head>
3
4 <body>
5   <%- include('includes/navigation.ejs') %>
6   <h1>Page Not Found!</h1>
7
8 <%- include('includes/end.ejs') %>
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node



```
      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)
```

0:04:54

## NODEJS-COMPLETE-GUIDE

main.css

product.css

## routes

admin.js

shop.js

## util

## views

## includes

end.ejs

head.ejs

navigation.ejs

## layouts

main-layout.hbs

main-layout.pug

404.ejs

404.hbs

404.html

404.pug

add-product.ejs

add-product.hbs

add-product.html

```
1 <header>
2   header__nav">
3     in-header__item-list">
4     ="main-header__item"><a class="<% path === 'A' ? 'active' : '' %>" href="/">Shop</a></li>
5     ="main-header__item"><a class="<% path === '/admin/add-product' ? 'active' : '' %>" href="/adm
6
7
8
```



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

1: node

+ - ×

```
      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)
```

0:07:44

0:01:49

The screenshot shows a code editor window titled "ejs". The menu bar includes "File", "Edit", and "View". The main content area displays text about EJS and its syntax.

Remember to install ejs before starting to use it as --save (i.e. production dependency)

Doesn't use layouts as like pug or handlebars,  
but render Html as it like handlebars (unlike pug)

```
<%= %> : To Dyanamically assign a value
<%- %> : To not render it in plain text but in HTML
<% %> : To simply adding javascript logic to the code. (#Closing tags should not be missed)
```

Ln 8, Col 47      180%      Windows (CRLF)      UT