## Web Development with Node.js and MongoDB

Andrew Marcinkevičius

Video 1.5

Hello Workout



## In this Video, we are going to take a look at...

- Making a CLI application
- Using ESLint
- Debugging an application



```
FOLDERS
                                       01-hello-workout.js ×
▼ 🕞 code
                                      #!/usr/bin/env node
 V > 1
   ▶ 🗀 1.3
                                       'use strict';
   ▶ □ 1.4
   ₹ 1.5
      a.eslintrc
                                       console.log('It works!');
      1 01-hello-workout.js
                                   6
 ▶ □ 2
 ▶ 🗀 3
 ▶ □ 4
 ▶ 🗀 5
 ▶ □ 6
 ▶ □ 7
 ▶ 🗀 8
   export-environment-variables.sh
▶ 🗀 scripts
```



Unix

```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]
$ chmod u+x 01-hello-workout.js

ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]
$ [!]
```



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                                    01-hello-workout.js ×
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                                   #!/usr/bin/env node
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                                   'use strict';
  ▶ 🗀 1.4
  ₹ 🗁 1.5
     .eslintrc
                                   const args = process.argv.slice(2);
     1 01-hello-workout.js
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 ▶ 🗀 4
 ▶ 🗀 5
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 ▶ □ 7
 ▶ 🗀 8
   metales.sh

▶ □ scripts
```



5 Words, Line 6, Column 1

UTF-8

```
FOLDERS
                                   01-hello-workout.js
♥ (⇒ code
                                  #!/usr/bin/env node
 V 31
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                                  'use strict';
  ▶ □ 1.4
  ₹ 🕞 1.5
     .eslintrc
                                  const args = process.argv.slice(2);
     1 01-hello-workout.js
                               6
 ▶ □ 2
                                  let name = args[0];
 ▶ 🗀 3
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                                  const availableIntensities = ['low', 'medium', 'high'];
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                                  let intensity = availableIntensities.indexOf(args[1]) >
 ▶ □ 6
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 ▶ 🗀 8
   nexport-environment-variables.sh
▶ □ scripts
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Unix

```
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                                 01-hello-workout.js ×
♥ (⇒ code
                                 #!/usr/bin/env node
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                                 'use strict';
  ▶ 🗀 1.4
  ₹ 1.5
     .eslintrc
                                 const args = process.argv.slice(2);
     1 01-hello-workout.js
                              6
 ▶ □ 2
                                 let name = args[0];
 ▶ 🗀 3
                              8
 ▶ □ 4
                                 const availableIntensities = ['low', 'medium', 'high'];
 ▶ □ 5
                                 let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'low';
 ▶ □ 6
                            11
 P 07
 ▶ 🗀 8
   metales.sh

▶ □ scripts
```

[Paden]

16 Words, Line 11, Column 1 2 misspelled words UTF-8 Unix Spaces: 4 V JavaScript (Babel)

```
FOLDERS
                                01-hello-workout.js ×
#!/usr/bin/env node
 V 31

▶ □ 1.3
                                'use strict';
  ▶ 🗀 1.4
  ₹ 1.5
     .eslintrc
                                const args = process.argv.slice(2);
     1 01-hello-workout.js

    □ 2

                                let name = args[0];
 ▶ 🗀 3
                             8

▶ □ 4
                                const availableIntensities = ['low', 'medium', 'high'];
 ▶ □ 5
                                let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'low';
 ▶ □ 6
                            11
 ▶ □ 7
                                process.stdout.write('Hello ' + name + '\n');
                            12
 ▶ 🗀 8
                                process.stdout.write('You chose ' + intensity + ' intensity workout\n');
   export-environment-variables.sh
▶ □ scripts
                            14
                                process.stdout.write('\nBellow are your exercises:\n');
                            15
                            16
```



23 Words, Line 16, Column 1

UTF-8

Unix

```
FOLDERS
                                01-hello-workout.js ×
V 31

▶ □ 1.3
                                'use strict';

▶ □ 1.4

  ₹ 1.5
                                const args = process.argv.slice(2);
     .eslintrc
     1 01-hello-workout.js
                                let name = args[0];
 ▶ □ 2
                             8
 ▶ 🗀 3
                                const availableIntensities = ['low', 'medium', 'high'];

▶ □ 4
                                let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'low';
 ▶ □ 5
                           11
 ▶ □ 6
                                process.stdout.write('Hello ' + name + '\n');
 Þ □ 7
                                process.stdout.write('You chose ' + intensity + ' intensity workout\n');
 ▶ 🗀 8
  members export-environment-variables.sh
                           14
▶ □ scripts
                                process.stdout.write('\nBellow are your exercises:\n');
                           16
                                function exercise(name, intensity) {
                           17
                                    let min = 1;
                           18
                                    let max = 5;
                           19
                           20
                                    switch (intensity) {
                           {21
                                         case 'medium':
                           22
                           23
                                             min = 10;
                           24
                                             max = 25:
                           25
                                             break;
                           26
                           27
                                         case 'high':
                                             min = 50;
                           28
                                             max = 100;
                           29
                           30
                                             break;
                          131
```

47 Words, Line 31, Column 6 Spaces: 4 | JavaScript (Babel) 2 misspelled words Unix UTF-8

```
01-hello-workout.js ×
                             process.stdout.write('Hello ' + name + '\n');
                             process.stdout.write('You chose ' + intensity + ' intensity workout\n');
                        14
                             process.stdout.write('\nBellow are your exercises:\n');
  .eslintrc
                        16
  1 01-hello-workout js
                             function exercise(name, intensity) {
                        17
                                 let min = 1;
                        18
                        19
                                 let max = 5;
                        20
                                 switch (intensity) {
                        21
                        22
                                     case 'medium':
                        23
                                          min = 10;
members export-environment-variables.sh
                        24
                                          max = 25;
                        25
                                          break;
                        26
                        27
                                     case 'high':
                                          min = 50;
                        28
                                          max = 100;
                        29
                                          break;
                        30
                                 }
                        31
                        32
                        33
                                 let reps = Math.floor(Math.random() * (max - min) + min);
                        34
                        35
                                 process.stdout.write(name + ' ' + reps + '\n');
                        36
                        37
                            exercise('Push-ups:', intensity);
                            exercise('Pull-ups:', intensity);
                             exercise('Squats: ', intensity);
                             exercise('Plank: ', intensity);
                                                                           2 misspelled words
                                                                                                   Unix
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```

**FOLDERS** 

V 31

▶ □ 2

▶ 🗀 3

▶ □ 4

▶ □ 5

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▶ ☐ scripts

▶ □ 1.3

► □ 1.4

₩ 🕞 1.5

Spaces: 4 | JavaScript (Babel) 58 Words, Line 42, Column 1

ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]







ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]
\$ [



```
Hello Workout
ifdattieeatorifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]
$ eslint --init
? How would you like to configure ESLint? Answer questions about your style
? What style of indentation do you use? (Use arrow keys)
```



Tabs

Spaces

```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]
$ eslint --init
? How would you like to configure ESLint? Answer questions about your style
? What style of indentation do you use? Spaces
? What quotes do you use for strings? Single
? What line endings do you use? Unix
? Do you require semicolons? Yes
? Are you using ECMAScript 6 features? Yes
? Where will your code run? (Press <space> to select)
> O Node

® Browser
```

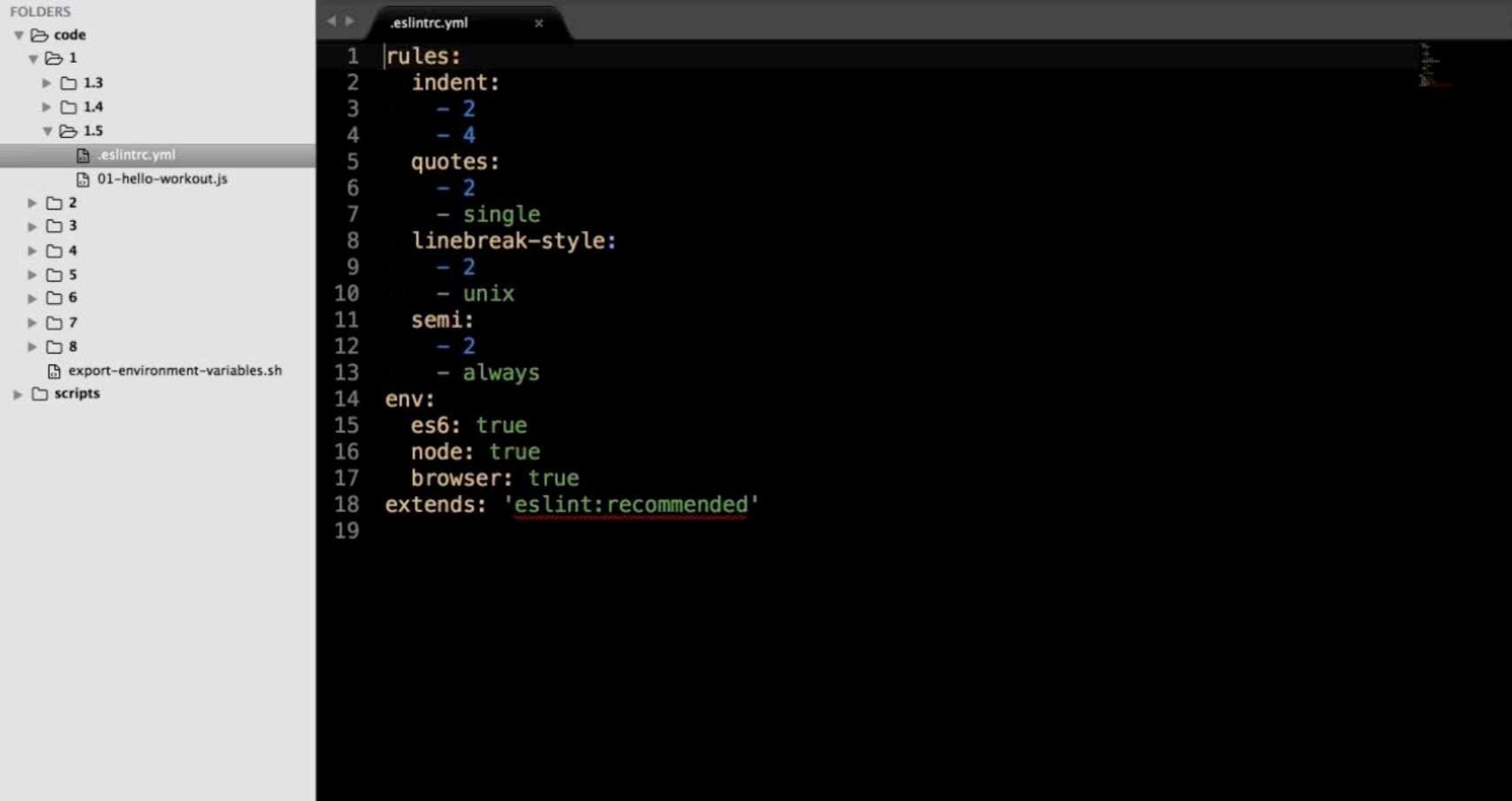


```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!]
$ eslint --init
? How would you like to configure ESLint? Answer questions about your style
? What style of indentation do you use? Spaces
? What quotes do you use for strings? Single
? What line endings do you use? Unix
? Do you require semicolons? Yes
? Are you using ECMAScript 6 features? Yes
? Where will your code run? Node, Browser
? Do you use JSX? No
? What format do you want your config file to be in?
JavaScript
> YAML
JSON
```



```
$ eslint --init
? How would you like to configure ESLint? Answer questions about your style
? What style of indentation do you use? Spaces
? What quotes do you use for strings? Single
? What line endings do you use? Unix
? Do you require semicolons? Yes
? Are you using ECMAScript 6 features? Yes
? Where will your code run? Node, Browser
? Do you use JSX? No
? What format do you want your config file to be in? YAML
Successfully created .eslintrc.yml file in /Users/ifdattic/projects/nodejs-mongodb-video-course/code/1/1.5
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
```

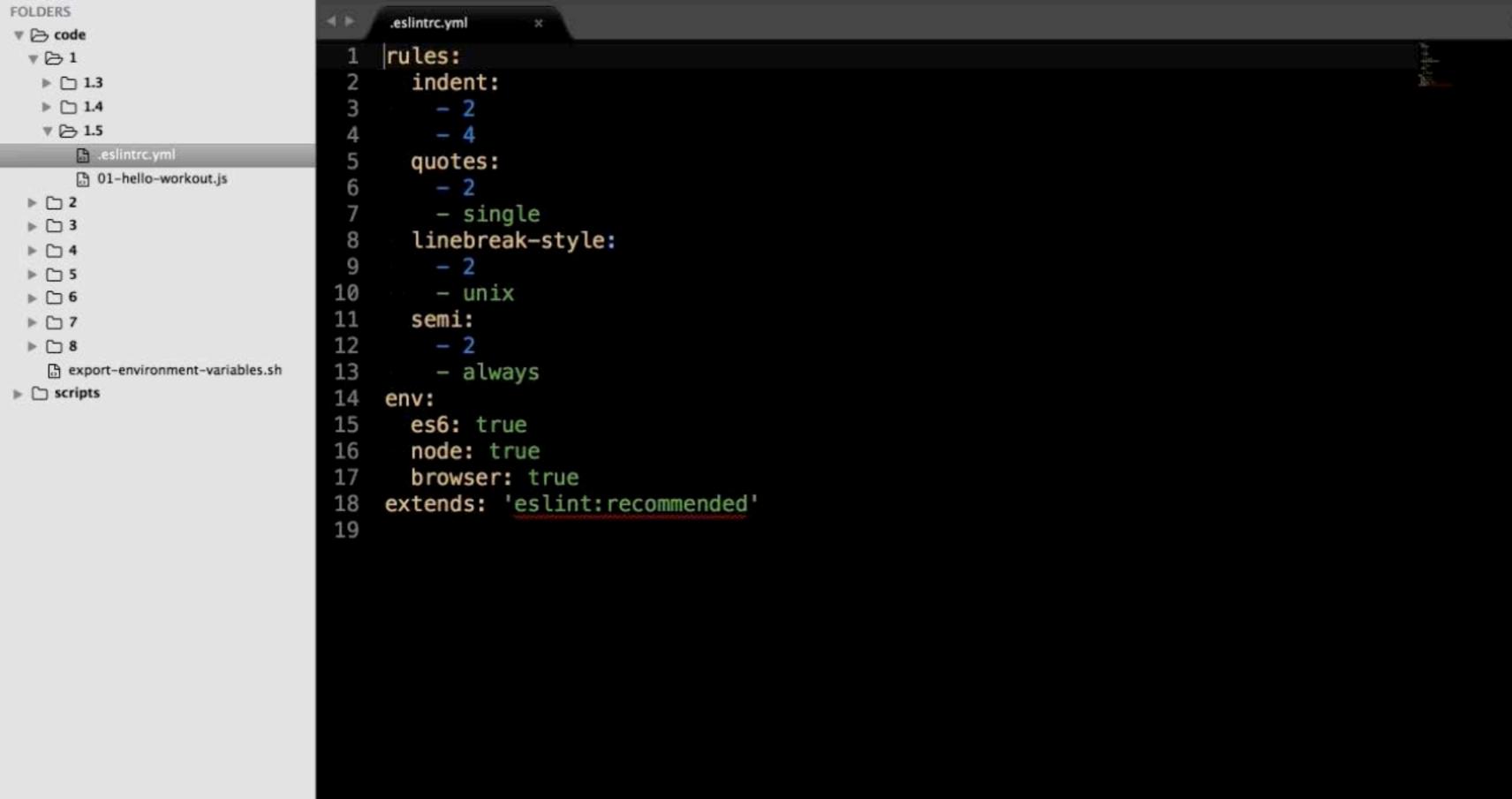


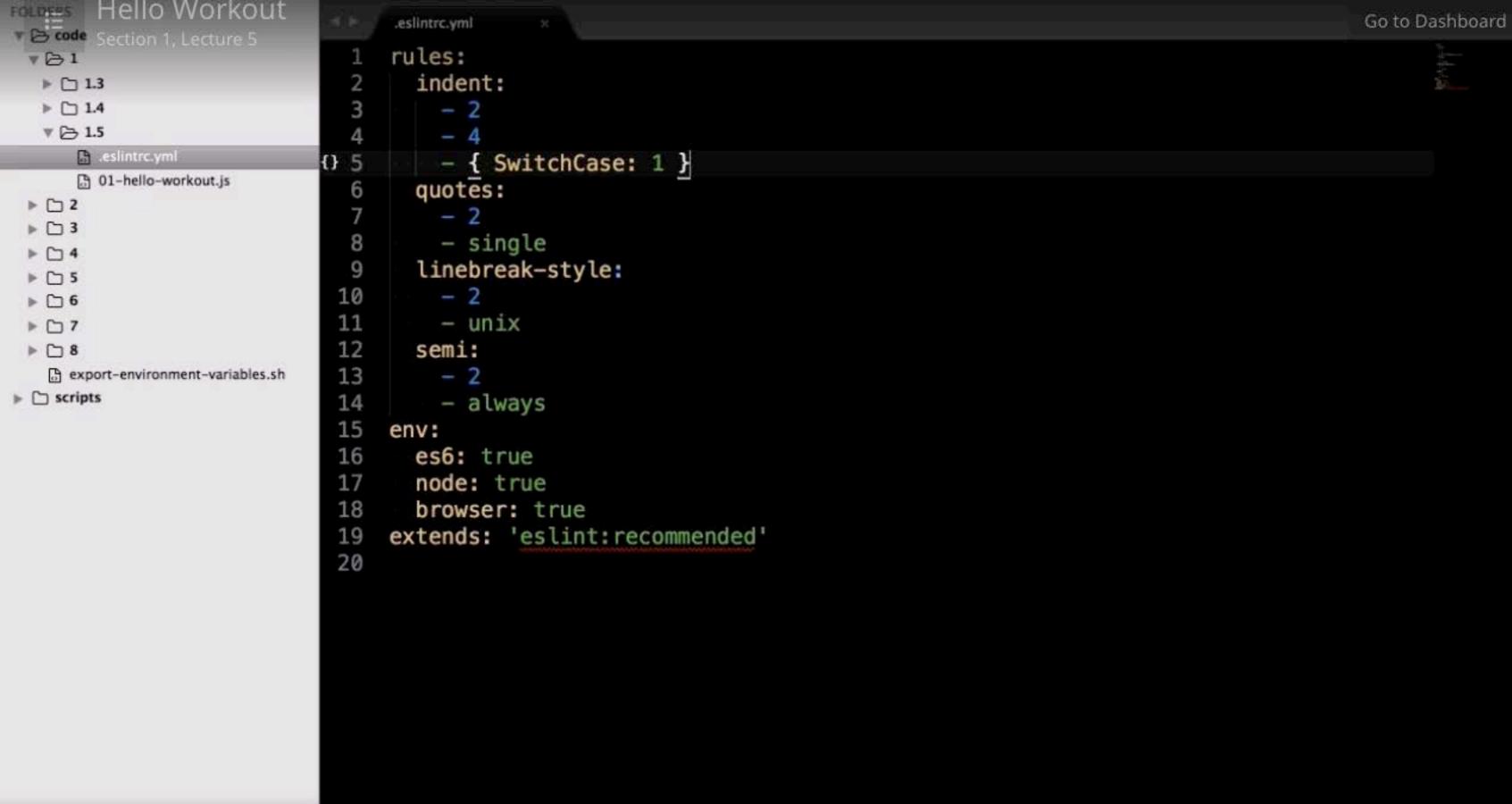


```
$ eslint 01-hello-workout.js
/Users/ifdattic/projects/nodejs-mongodb-video-course/code/1/1.5/01-hello-workout.js
                Expected indentation of 4 space characters but found 8
  22:9
                                                                         indent
                Expected indentation of 8 space characters but found 12
  23:13
                                                                         indent
                Expected indentation of 8 space characters but found 12
  24:13
                                                                         indent
         error
                Expected indentation of 8 space characters but found 12
  25:13
         error
                                                                         indent
  27:9
                Expected indentation of 4 space characters but found 8
                                                                         indent
  28:13
                Expected indentation of 8 space characters but found 12
                                                                         indent
         error
                Expected indentation of 8 space characters but found 12
  29:13
                                                                         indent
         error
                Expected indentation of 8 space characters but found 12
  30:13
                                                                        indent
         error
* 8 problems (8 errors, 0 warnings)
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
```

ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]







Continuo Paces

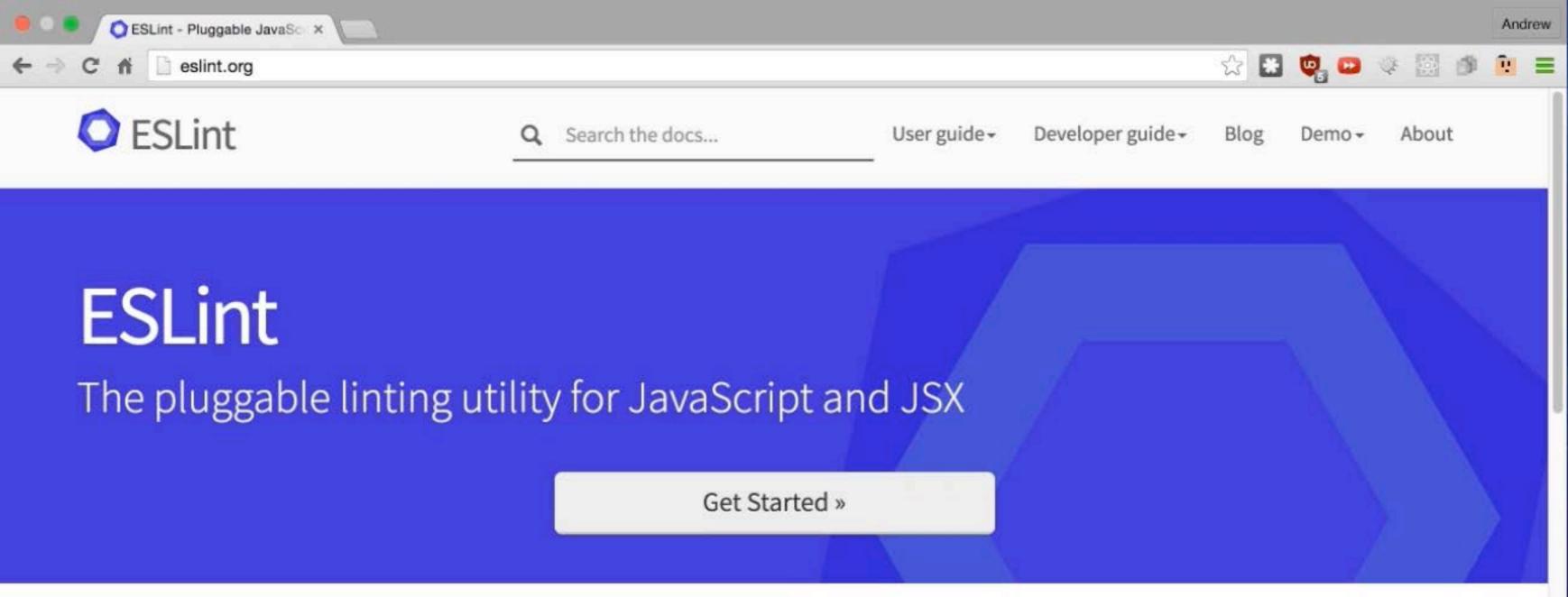


```
FOLDERS
                                01-hello-workout.js
V 31
                                process.stdout.write('You chose ' + intensity + ' intensity workout\n');
  ▶ □ 1.3
                           14
  ▶ □ 1.4
                                process.stdout.write('\nBellow are your exercises:\n');
                           15
  ₹ 3 1.5
                           16
     eslintrc.yml
                                function exercise(name, intensity) {
                          ₹17
     1 01-hello-workout.js
                           18
                                    let min = 1;
 ▶ □ 2
                           19
                                    let max = 5;
 ▶ 🗀 3
                           20
 ▶ □ 4
                           21
                                    switch (intensity) {
 ▶ □ 5
 ▶ □ 6
                           22
                                         case 'medium':
 Þ □ 7
                           23
                                             min = 10;
 ▶ □ 8
                           24
                                             \max = 25;
   export-environment-variables.sh
                           25
                                             break;
▶ ☐ scripts
                           26
                           27
                                         case 'high':
                           28
                                             min = 50;
                           29
                                             max = 100;
                           30
                                             break;
                                    }
                           31
                           32
                                    console.log('Error');
                           33
                                    let sets
                                    let reps = Math.floor(Math.random() * (max - min) + min);
                           34
                           35
                                    process.stdout.write(name + ' ' + reps + '\n');
                           36
                          137
                           38
                                exercise('Push-ups:', intensity);
                                exercise('Pull-ups:', intensity);
                                exercise('Squats: ', intensity);
                                exercise('Plank:
                                                                                                                  UTF-8 V I D
```

ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
\$ eslint 01-hello-workout.js







## Welcome

ESLint is an open source project originally created by Nicholas C. Zakas in June 2013. Its goal is to provide a pluggable linting utility for JavaScript.

**Latest News** 



```
FOLDERS
                                 01-hello-workout.js
▼ 🕞 code
                                #!/usr/bin/env node
 V 31
  ▶ □ 1.3
                                 'use strict';

▶ □ 1.4

  ₹ 1.5
     eslintrc.yml
                                const args = process.argv.slice(2);
     1 01-hello-workout js
 ▶ □ 2
                                 let name = args[0];
 ▶ □ 3
 ▶ □ 4
                                console.log('=== Debugging name variable ===', name)
 ▶ □ 5
                            10
                                                                                       name
 ▶ □ 6
                                const availableIntensities = ['low', 'medium', name (variable)
 ▶ □ 7
                                 let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'Low';
 ▶ □ 8
                            13
   members export-environment-variables.sh

▶ ☐ scripts

                                process.stdout.write('Hello ' + name + '\n');
                            14
                                process.stdout.write('You chose ' + intensity + ' intensity workout\n');
                            16
                                process.stdout.write('\nBellow are your exercises:\n');
                            17
                            18
                                 function exercise(name, intensity) {
                            20
                                     let min = 1;
                            21
                                     let max = 5;
                            22
                                     switch (intensity) {
                            23
                            24
                                          case 'medium':
                                              min = 10;
                            25
                            26
                                              \max = 25;
                            27
                                              break;
                            28
                                          case 'high':
                            29
                            30
                                              min = 50;
                                                                                2 misspelled words
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                                                                                               UTF-8
```

```
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                                 01-hello-workout.js ×
▼ 🗁 code
                                #!/usr/bin/env node
 V 31
  ▶ □ 1.3
                                 'use strict';

► □ 1.4

  ₹ 1.5
     .eslintrc.yml
                                 const args = process.argv.slice(2);
     1 01-hello-workout js
                             6
 ▶ □ 2
                                 let name = args[0];
 ▶ 🗀 3
                             8
 D 4
                                 console.log('=== Debugging name variable ===', name);
 ▶ □ 5
                            10
 ▶ □ 6
                                 const availableIntensities = ['low', 'medium', 'high'];
 □ 7
                                 let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'low';
 ▶ □ 8
                            13
   members export-environment-variables.sh

▶ □ scripts

                                 process.stdout.write('Hello ' + name + '\n');
                            14
                                 process.stdout.write('You chose ' + intensity + ' intensity workout\n');
                            16
                                 process.stdout.write('\nBellow are your exercises:\n');
                            17
                            18
                                 function exercise(name, intensity) {
                            20
                                     let min = 1;
                            21
                                     let max = 5;
                            22
                                     switch (intensity) {
                            23
                            24
                                          case 'medium':
                            25
                                              min = 10:
                            26
                                              \max = 25;
                            27
                                              break;
                            28
                                          case 'high':
                            29
                            30
                                              min = 50;
                                                                                                                  Spaces: 4 | JavaScript (Babel)
                                                                                                          Unix
                                                                                               UTF-8
```

2 misspelled words 62 Words, Line 9, Column 54



```
FOLDERS
                                 01-hello-workout.js
♥ 🕞 code
                                #!/usr/bin/env node
 V 31
  ▶ □ 1.3
                                'use strict';

► □ 1.4

  ₹ 3 1.5
     .eslintrc.yml
                                const args = process.argv.slice(2);
     1 01-hello-workout js
 ▶ □ 2
                                let name = args[0];
 ▶ □ 3
                             8
 ▶ □ 4
                                if (!name) {
 ▶ □ 5
                                     process.stdout.write('Please provide your name!');
                            10
 ▶ □ 6
                            11
 Þ □ 7
                                     process.exit(1);
                            12
 ▶ □ 8
                           113
   export-environment-variables.sh
▶ ☐ scripts
                            14
                                const availableIntensities = ['low', 'medium', 'high'];
                                let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'low';
                            17
                                process.stdout.write('Hello ' + name + '\n');
                                process.stdout.write('You chose ' + intensity + ' intensity workout\n');
                            20
                                process.stdout.write('\nBellow are your exercises:\n');
                            22
                                function exercise(name, intensity) {
                            24
                                     let min = 1;
                                     let max = 5;
                            26
                                     switch (intensity) {
                                         case 'medium':
                            28
                                              min = 10;
                            29
                            30
                                              max = 25;
                                                                               2 misspelled words
                                                                                              UTF-8
                                                                                                        Unix
```

```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
$ ./01-hello-workout.js
Please provide your name!
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
$ ||
```



```
FOLDERS
                                 01-hello-workout.js ×
♥ 🕞 code
                                #!/usr/bin/env node
 V 31

► □ 1.3
                                'use strict';
  ▶ □ 1.4
  ₹ 3 1.5
     @ .eslintrc.yml
                                const args = process.argv.slice(2);
     1 01-hello-workout.js
 ▶ □ 2
                                let name = args[0];
 ▶ 🗀 3
                             8

▶ □ 4
                                if (!name) {
 ▶ □ 5
                                     let x = 5:
                            10
 ▶ □ 6
                                     debugger
                            11
 Þ □ 7
                                     process.stdout.write('Please provide your name!');
                            12
 ▶ 🗀 8
                            13
   export-environment-variables.sh

▶ □ scripts
                                     process.exit(1);
                            14
                           115
                            16
                                const availableIntensities = ['low', 'medium', 'high'];
                                let intensity = availableIntensities.indexOf(args[1]) > -1 ? args[1] : 'low';
                            19
                                process.stdout.write('Hello ' + name + '\n');
                                process.stdout.write('You chose ' + intensity + ' intensity workout\n');
                            22
                                process.stdout.write('\nBellow are your exercises:\n');
                            23
                            24
                                function exercise(name, intensity) {
                                     let min = 1;
                            26
                                     let max = 5;
                            28
                                     switch (intensity) {
                            29
                                         case 'medium':
                            30
                                                                               2 misspelled words
                                                                                                         Unix
                                                                                              UTF-8
```

66 Words, Line 11, Column 14

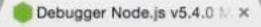


```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
$ node debug 01-hello-workout.js
< Debugger listening on port 5858
connecting to 127.0.0.1:5858 ... ok
break in 01-hello-workout.js:3
> 3 'use strict';
 5 const args = process.argv.slice(2);
debug> help
Commands: run (r), cont (c), next (n), step (s), out (o), backtrace (bt), setBreakpoint (sb), clearBreakpoint (cb),
watch, unwatch, watchers, repl, exec, restart, kill, list, scripts, breakOnException, breakpoints, version
debug> c
break in 01-hello-workout.js:11
9 if (!name) {
10
        let x = 5;
>11
       debugger;
       process.stdout.write('Please provide your name!');
12
 13
debug> repl
Press Ctrl + C to leave debug repl
> console.log(name)
< undefined
> co
```



```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
$ node debug 01-hello-workout.js
< Debugger listening on port 5858
connecting to 127.0.0.1:5858 ... ok
break in 01-hello-workout.js:3
> 3 'use strict';
 5 const args = process.argv.slice(2);
debug> help
Commands: run (r), cont (c), next (n), step (s), out (o), backtrace (bt), setBreakpoint (sb), clearBreakpoint (cb),
watch, unwatch, watchers, repl, exec, restart, kill, list, scripts, breakOnException, breakpoints, version
debug> c
break in 01-hello-workout.js:11
9 if (!name) {
10
        let x = 5:
       debugger;
>11
       process.stdout.write('Please provide your name!');
12
 13
debug> repl
Press Ctrl + C to leave debug repl
> console.log(name)
< undefined
> console.log(x)
< 5
debug>
(To exit, press ^C again or type .exit)
debug>
```





https://nodejs.org/api/debugger.html

















#### Node.js (1)

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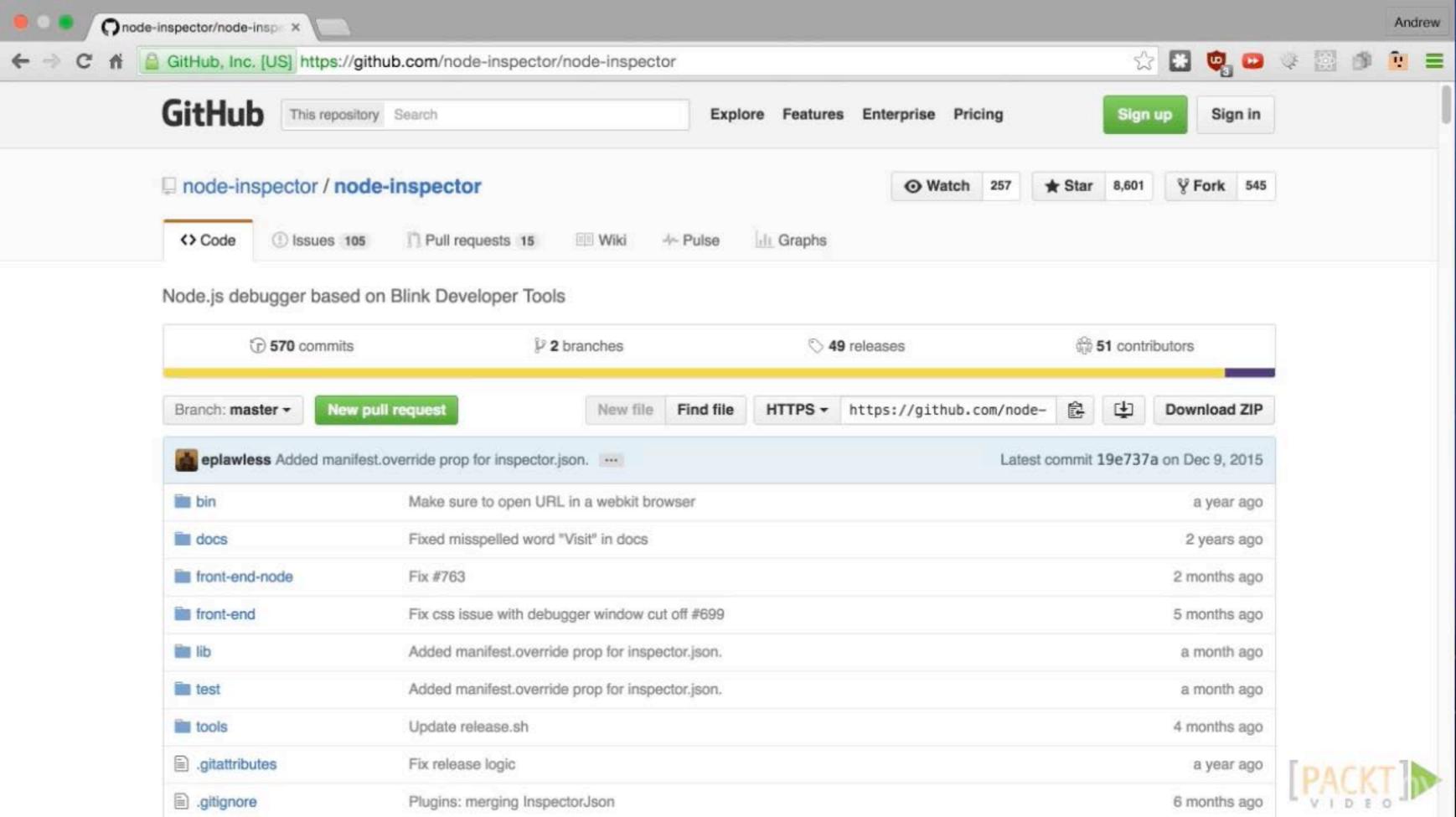
- Debugger
  - Watchers
  - Commands reference
    - Stepping
    - Breakpoints
    - Info
    - Execution control
    - Various
  - Advanced Usage

### Debugger

Stability: 2 - Stable

Node.js includes a full-featured out-of-process debugging utility accessible via a simple TCP-based protocol and built-in debugging client. To use it, start Node.js with the debug







```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
$ node-debug 01-hello-workout.js Andrew
Node Inspector is now available from http://127.0.0.1:8080/?ws=127.0.0.1:8080&port=5858
Debugging `01-hello-workout.js`

Debugger listening on port 5858
No browser matching [chrome,chromium,opera] found in the system! If this is not true, submit a bug report on https://github.com
```

/benderjs/browser-launcher2 Please open the URL manually in Chrome/Chromium/Opera or similar browser



```
ifdattic at ifdattic-mbp13 in ~/projects/nodejs-mongodb-video-course/code/1/1.5 on master [!?]
$ node-debug 01-hello-workout.js Andrew
Node Inspector is now available from http://127.0.0.1:8080/?ws=127.0.0.1:8080&port=585&
Debugging `01-hello-workout.js`

Debugger listening on port 5858
No browser matching [chrome,chromium,opera] found in the system! If this is not true, submit a bug report on https://github.com
```

/benderjs/browser-launcher2 Please open the URL manually in Chrome/Chromium/Opera or similar browser







Console Search Emulation Randering

scrape Signore case Reguler expression

() Line 40, Column 1



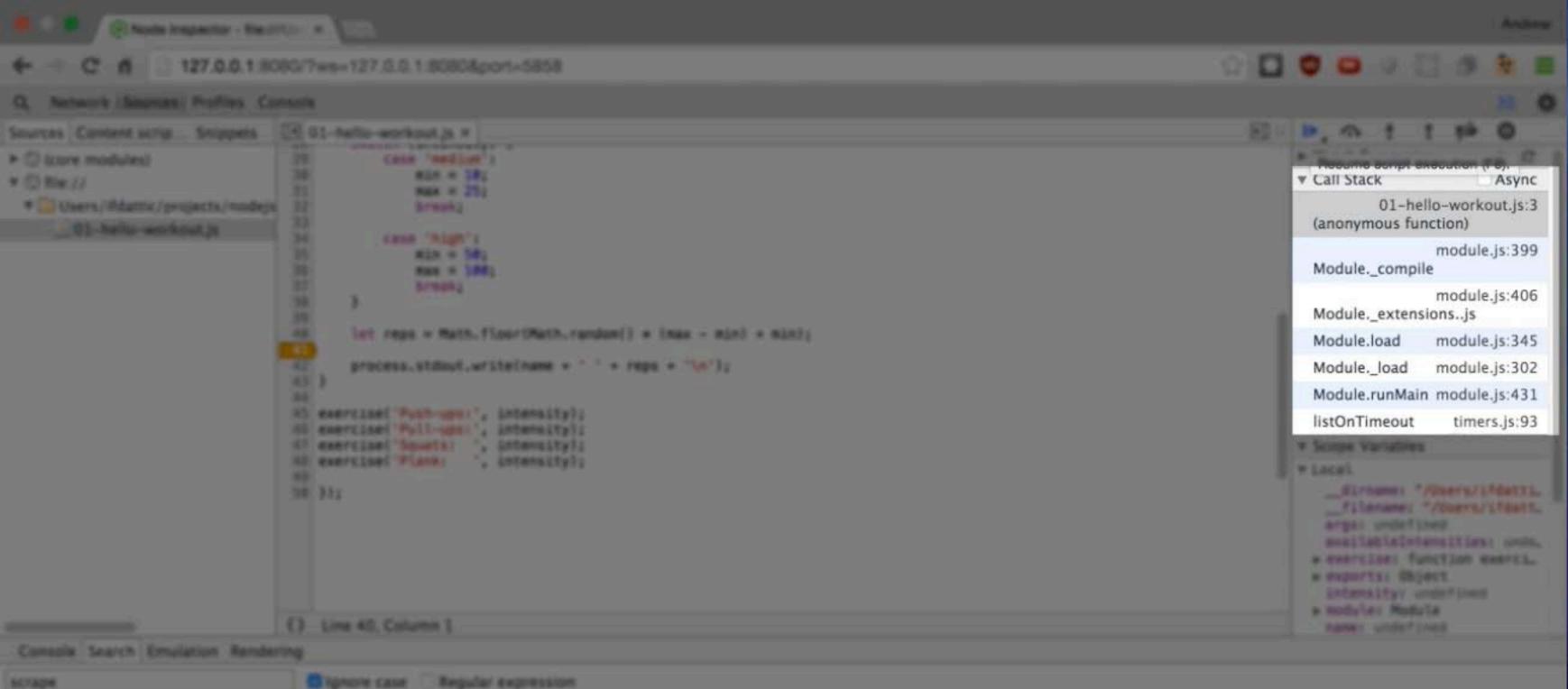
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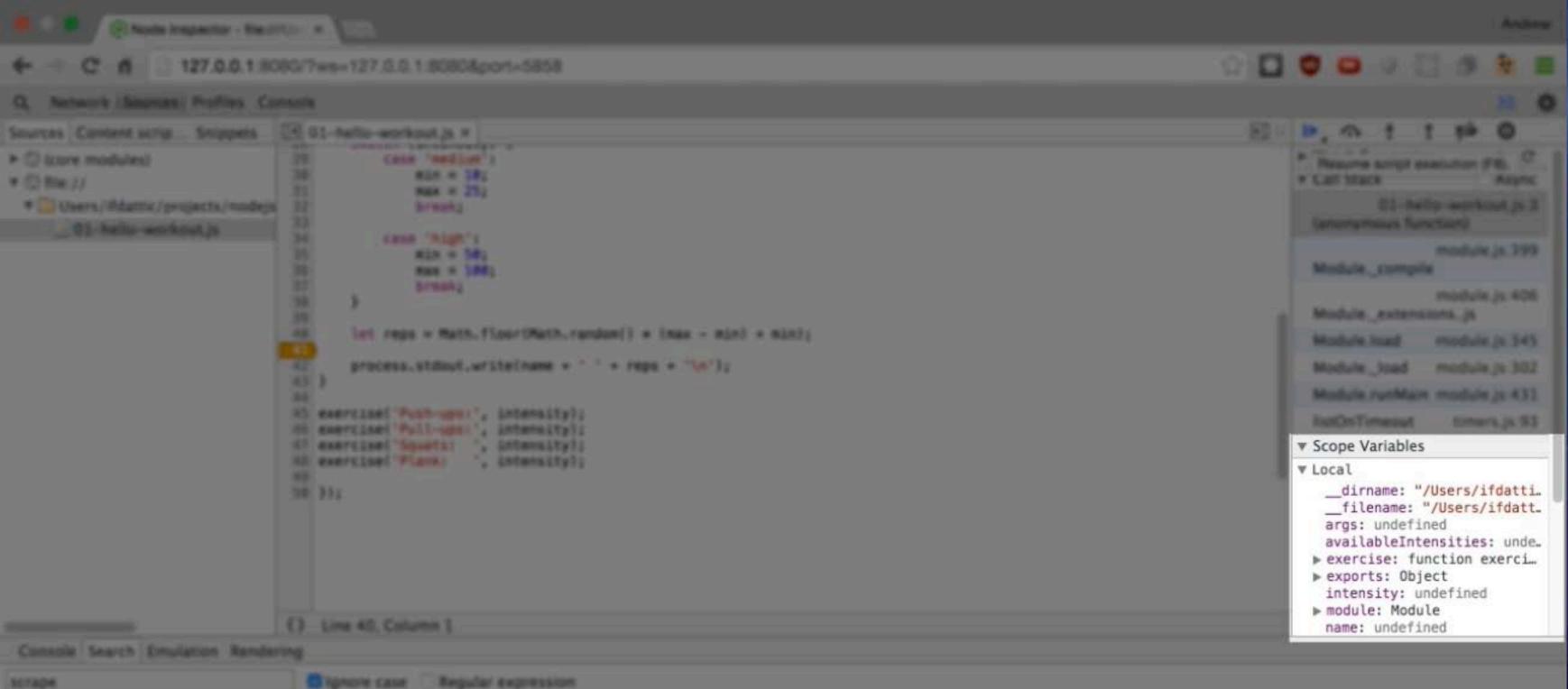
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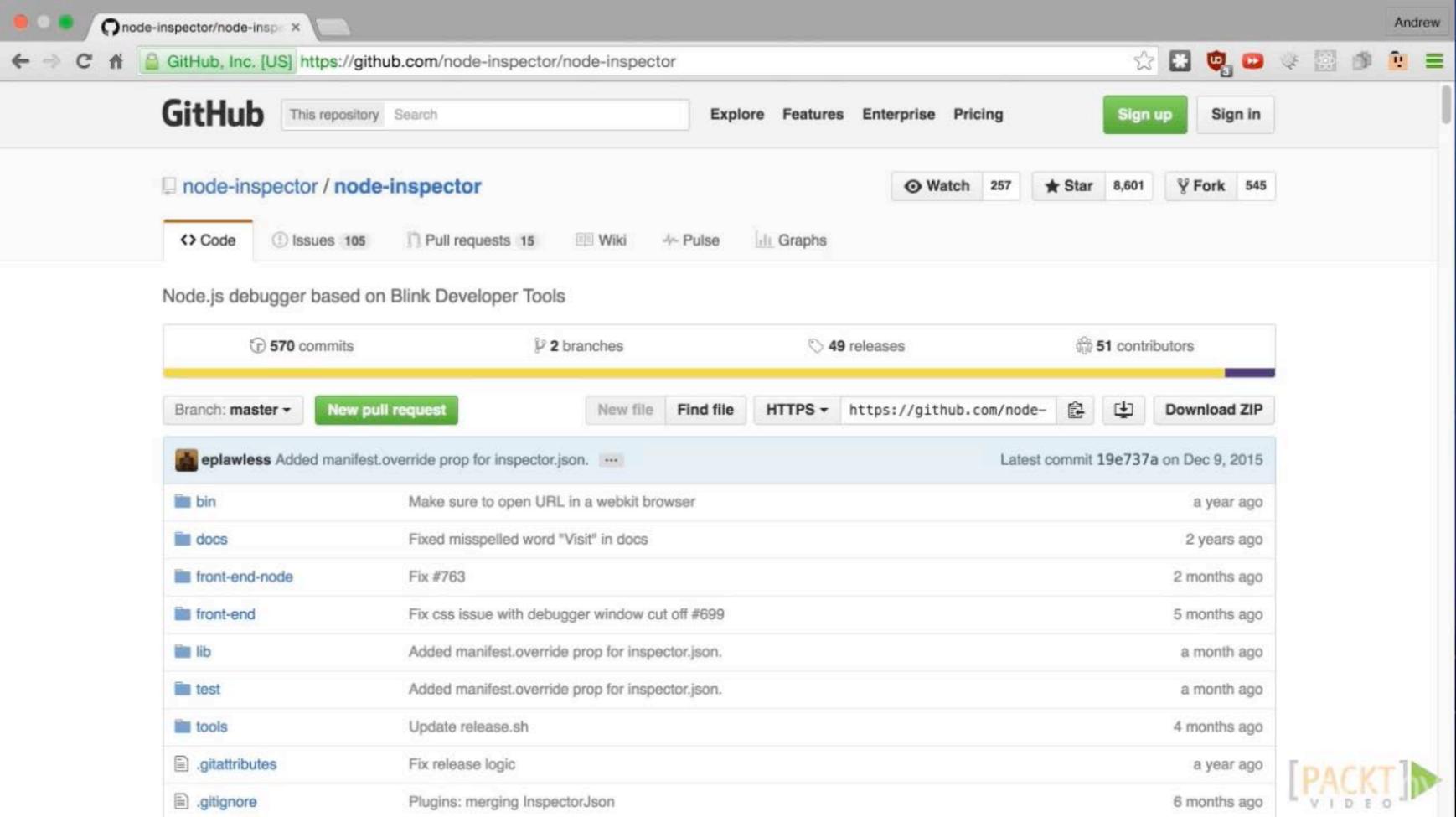
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# Summary

- Node.js basics
- Blocking versus Non-blocking code
- Setting up your environment
- Hello workout



# **Next Section**

Understanding Node.js Apps

