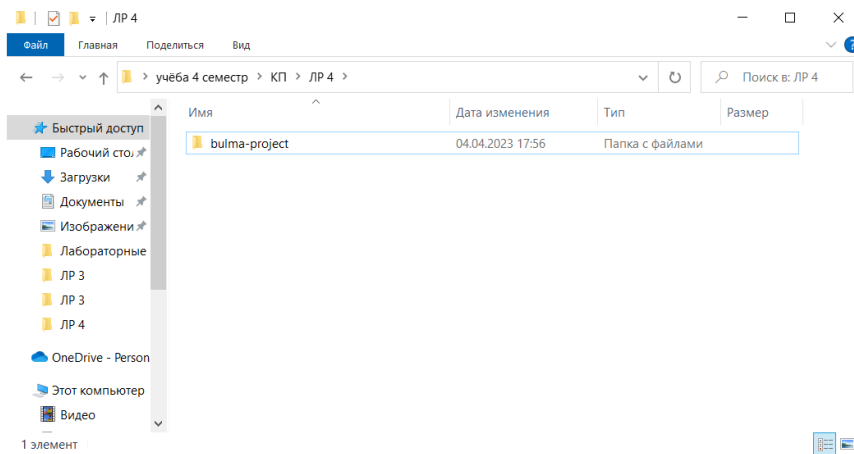


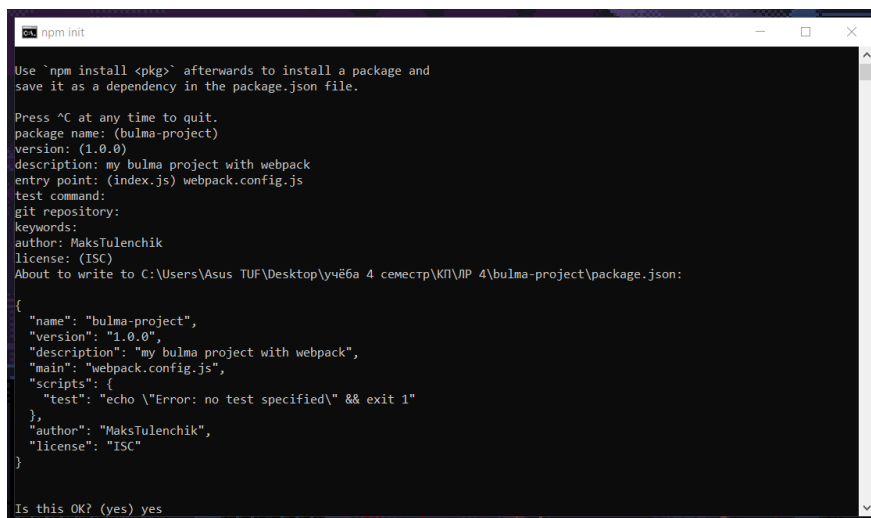
Лабораторная работа №4

Сборка сайта через bulma-webpack

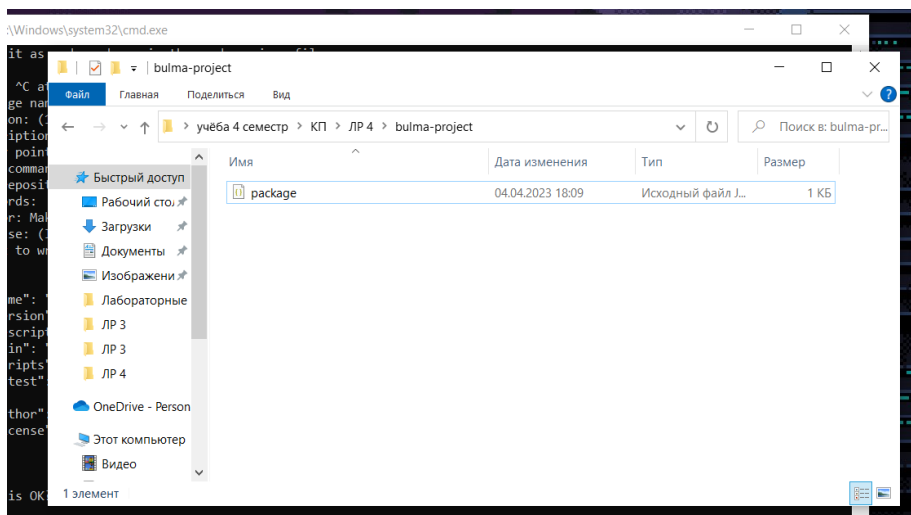
Создал каталог 'bulma-project'.



Инициализировал проект на bulma в данном каталоге.



Появился конфигурационный файл.



Установил зависимости.

```
C:\Windows\system32\cmd.exe

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install bulma --save-dev
added 1 package, and audited 2 packages in 782ms

found 0 vulnerabilities

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install css-loader --save-dev
added 93 packages, and audited 95 packages in 5s

12 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install extract-text-webpack-plugin@next --save-dev
npm ERR! code ERESOLVE
npm ERR! ERESOLVE could not resolve
npm ERR!
npm ERR! While resolving: bulma-project@1.0.0
npm ERR! Found: webpack@5.77.0
npm ERR! node_modules/webpack
npm ERR!   peer webpack@"^5.0.0" from css-loader@6.7.3
npm ERR!   node_modules/css-loader
npm ERR!     dev css-loader@"^6.7.3" from the root project
npm ERR!   peer webpack@"^5.1.0" from terser-webpack-plugin@5.3.7
npm ERR!   node_modules/terser-webpack-plugin
npm ERR!     terser-webpack-plugin@"^5.1.3" from webpack@5.77.0
npm ERR!
npm ERR! 
```

```
C:\Windows\system32\cmd.exe

npm ERR! Conflicting peer dependency: webpack@4.46.0
npm ERR! node_modules/webpack
npm ERR!   peer webpack@"^3.0.0 || ^4.0.0" from extract-text-webpack-plugin@4.0.0-beta.0
npm ERR!   node_modules/extract-text-webpack-plugin
npm ERR!     dev extract-text-webpack-plugin@"4.0.0-beta.0" from the root project
npm ERR!
npm ERR! Fix the upstream dependency conflict, or retry
npm ERR! this command with --force, or --legacy-peer-deps
npm ERR! to accept an incorrect (and potentially broken) dependency resolution.
npm ERR! See C:\Users\Asus TUF\AppData\Local\npm-cache\eresolve-report.txt for a full report.

npm ERR! A complete log of this run can be found in:
npm ERR!   C:\Users\Asus TUF\AppData\Local\npm-cache\_logs\2023-04-04T15_12_14_795Z-debug-0.log

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install mini-css-extract-plugin --save-dev
added 9 packages, and audited 104 packages in 32s

15 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install node-sass --save-dev
npm WARN deprecated @npmcli/move-file@2.0.1: This functionality has been moved to @npmcli/fs
npm WARN deprecated @npmcli/move-file@1.1.2: This functionality has been moved to @npmcli/fs

added 200 packages, and audited 304 packages in 13s
```

```
C:\Windows\system32\cmd.exe

34 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install sass-loader --save-dev
added 2 packages, and audited 306 packages in 2s

35 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install style-loader --save-dev
added 1 package, and audited 307 packages in 944ms

36 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

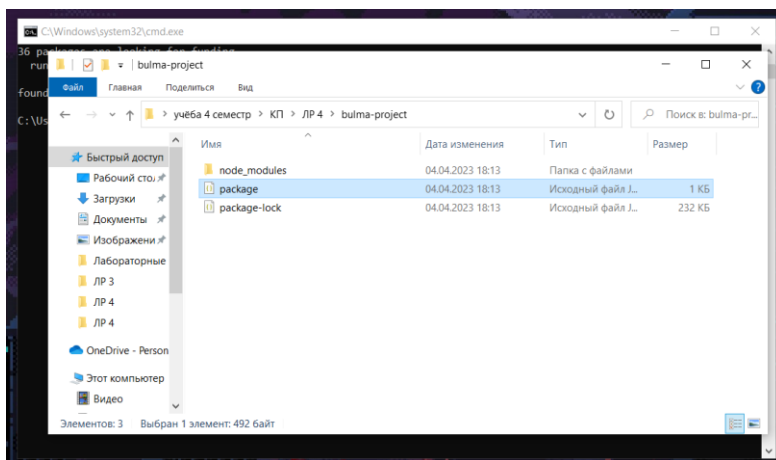
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm install webpack --save-dev
up to date, audited 307 packages in 927ms

36 packages are looking for funding
  run `npm fund` for details
```

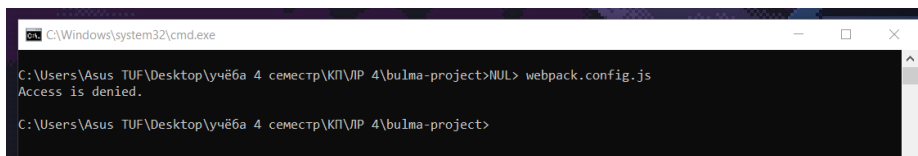
```

1 {
2   "name": "bulma-project",
3   "version": "1.0.0",
4   "description": "my bulma project with webpack",
5   "main": "webpack.config.js",
6   "scripts": {
7     "test": "echo \"Error: no test specified\" && exit 1"
8   },
9   "author": "MaksTulenchik",
10  "license": "ISC",
11  "devDependencies": {
12    "bulma": "^0.9.4",
13    "css-loader": "^6.7.3",
14    "mini-css-extract-plugin": "^2.7.5",
15    "node-sass": "^8.0.0",
16    "sass-loader": "^13.2.2",
17    "style-loader": "^3.3.2",
18    "webpack": "^5.77.0"
19  }
20 }
21

```



Создал файл webpack.config.js.



Добавил конфигурацию предложенную на сайте.

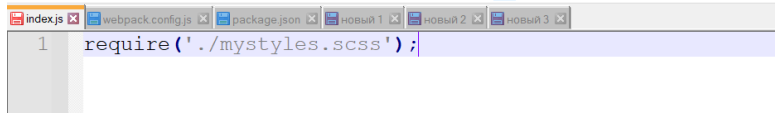
```

1 const path = require('path');
2 const ExtractTextPlugin = require("extract-text-webpack-plugin");
3
4 module.exports = {
5   entry: './src/index.js',
6   output: {
7     path: path.resolve(__dirname, 'dist'),
8     filename: 'js/bundle.js'
9   },
10  module: {
11    rules: [{
12      test: /\.scss$/,
13      use: ExtractTextPlugin.extract({
14        fallback: 'style-loader',
15        use: [
16          'css-loader',
17          'sass-loader'
18        ]
19      })
20    ]
21  },
22  plugins: [
23    new ExtractTextPlugin('css/mystyles.css'),
24  ]
25 };

```

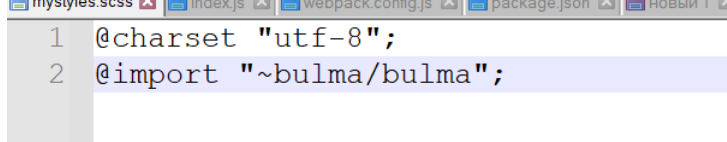
Создал каталог src и файл index.js в нём.

```
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>mkdir src
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>cd src
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\src>NUL> index.js
Access is denied.
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\src>
```



В каталоге src создал файл mystyles.scss.

```
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\src>NUL> mystyles.scss
Access is denied.
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\src>
```



В главном каталоге создал каталог dist и в нём уже создал каталоги js и css.

```
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\src>cd ..
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>mkdir dist
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>cd dist
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\dist>mkdir js
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\dist>mkdir css
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project\dist>
```

File Explorer view of the project directory:

| Имя | Дата изменения | Тип | Размер |
|----------------|------------------|--------------------|--------|
| dist | 04.04.2023 18:45 | Папка с файлами | |
| node_modules | 04.04.2023 18:13 | Папка с файлами | |
| src | 04.04.2023 18:39 | Папка с файлами | |
| package | 04.04.2023 18:13 | Исходный файл J... | 1 КБ |
| package-lock | 04.04.2023 18:13 | Исходный файл J... | 232 КБ |
| webpack.config | 04.04.2023 18:31 | файл JavaScript | 1 КБ |

File Explorer view of the dist directory:

| Имя | Дата изменения | Тип | Размер |
|-----|------------------|-----------------|--------|
| css | 04.04.2023 18:45 | Папка с файлами | |
| js | 04.04.2023 18:45 | Папка с файлами | |

В главном каталоге создал файл index.html.

```
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>NUL> index.html
Access is denied.

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>
```

учёба 4 семестр > КП > ЛР 4 > bulma-project

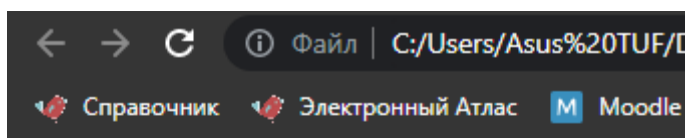
Поиск в: bulma

| Имя | Дата изменения | Тип | Размер |
|----------------|------------------|--------------------|--------|
| dist | 04.04.2023 18:45 | Папка с файлами | |
| node_modules | 04.04.2023 18:13 | Папка с файлами | |
| src | 04.04.2023 18:39 | Папка с файлами | |
| index | 04.04.2023 18:48 | Chrome HTML Do... | 0 КБ |
| package | 04.04.2023 18:13 | Исходный файл J... | 1 КБ |
| package-lock | 04.04.2023 18:13 | Исходный файл J... | 232 КБ |
| webpack.config | 04.04.2023 18:31 | файл JavaScript | 1 КБ |

Добавил в него содержимое из документации.

```
13 </h1>
14
15 <p class="subtitle">
16   Modern CSS framework based on <a href="https://developer.mozilla.org/en-US/docs/Web/CSS/CSS_Flexible_Box_Layout/"
17 </p>
18
19 <div class="field">
20   <div class="control">
21     <input class="input" type="text" placeholder="Input">
22   </div>
23 </div>
24
25 <div class="field">
26   <p class="control">
27     <span class="select">
28       <select>
29         <option>Select dropdown</option>
30       </select>
31     </span>
32   </p>
33 </div>
34
35 <div class="buttons">
36   <a class="button is-primary">Primary</a>
37   <a class="button is-link">Link</a>
38 </div>
39 </body>
40 </html>
```

При открытии в браузере, стили отсутствуют.



Bulma

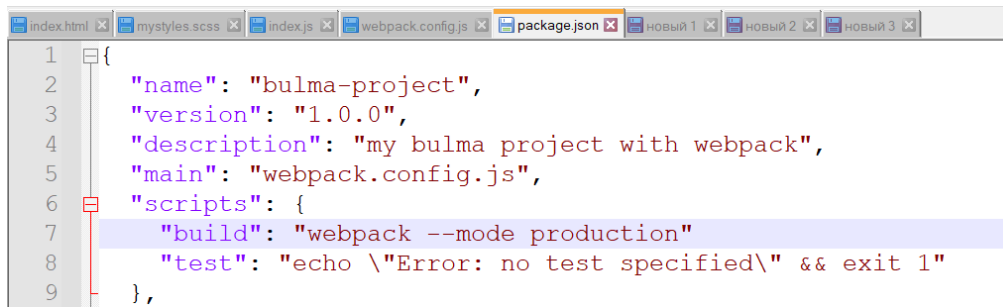
Modern CSS framework based on [Flexbox](#)

Input

Select dropdown ▼

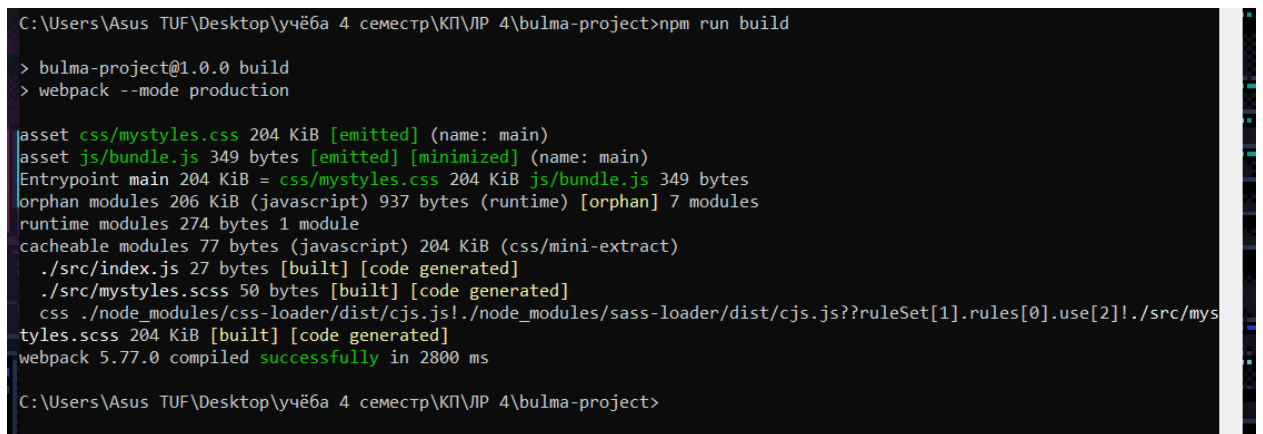
Primary Link

Добавил скрипт в файл package.json.



```
1 {
2   "name": "bulma-project",
3   "version": "1.0.0",
4   "description": "my bulma project with webpack",
5   "main": "webpack.config.js",
6   "scripts": {
7     "build": "webpack --mode production"
8     "test": "echo \"Error: no test specified\" && exit 1"
9  },
```

Запускаю npm run build.



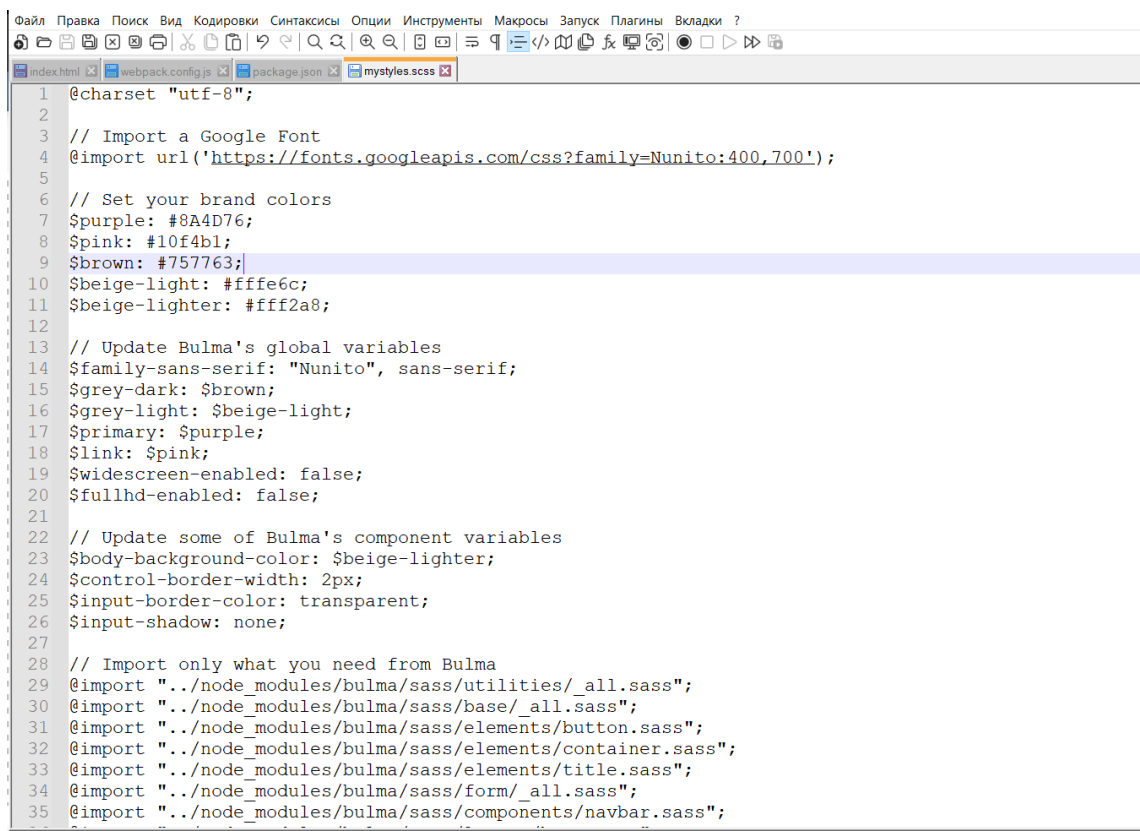
```
C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm run build

> bulma-project@1.0.0 build
> webpack --mode production

asset css/mystyles.css 204 KiB [emitted] (name: main)
asset js/bundle.js 349 bytes [emitted] [minimized] (name: main)
Entrypoint main 204 KiB = css/mystyles.css 204 KiB js/bundle.js 349 bytes
orphan modules 206 KiB (javascript) 937 bytes (runtime) [orphan] 7 modules
runtime modules 274 bytes 1 module
cacheable modules 77 bytes (javascript) 204 KiB (css/mini-extract)
  ./src/index.js 27 bytes [built] [code generated]
  ./src/mystyles.scss 50 bytes [built] [code generated]
  css ./node_modules/css-loader/dist/cjs.js!/node_modules/sass-loader/dist/cjs.js??ruleSet[1].rules[0].use[2]!./src/mystyles.scss 204 KiB [built] [code generated]
webpack 5.77.0 compiled successfully in 2800 ms

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>
```

Меняю содержимое файла mystyles.scss (заменяю на шаблон с сайта bulma и меняю цвета).



```
1 @charset "utf-8";
2
3 // Import a Google Font
4 @import url('https://fonts.googleapis.com/css?family=Nunito:400,700');
5
6 // Set your brand colors
7 $purple: #8A4D76;
8 $pink: #10f4b1;
9 $brown: #757763;
10 $beige-light: #fff66c;
11 $beige-lighter: #fff2a8;
12
13 // Update Bulma's global variables
14 $family-sans-serif: "Nunito", sans-serif;
15 $grey-dark: $brown;
16 $grey-light: $beige-light;
17 $primary: $purple;
18 $link: $pink;
19 $widescreen-enabled: false;
20 $fullhd-enabled: false;
21
22 // Update some of Bulma's component variables
23 $body-background-color: $beige-lighter;
24 $control-border-width: 2px;
25 $input-border-color: transparent;
26 $input-shadow: none;
27
28 // Import only what you need from Bulma
29 @import "../node_modules/bulma/sass/utilities/_all.sass";
30 @import "../node_modules/bulma/sass/base/_all.sass";
31 @import "../node_modules/bulma/sass/elements/button.sass";
32 @import "../node_modules/bulma/sass/elements/container.sass";
33 @import "../node_modules/bulma/sass/elements/title.sass";
34 @import "../node_modules/bulma/sass/form/_all.sass";
35 @import "../node_modules/bulma/sass/components/navbar.sass";
```

Снова запустил `npm run build`.

Всё прошло успешно.

```
C:\Windows\system32\cmd.exe
runtime modules 274 bytes 1 module
cacheable modules 77 bytes (javascript) 204 KiB (css/mini-extract)
  ./src/index.js 27 bytes [built] [code generated]
  ./src/mystyles.scss 50 bytes [built] [code generated]
  css ./node_modules/css-loader/dist/cjs.js!/node_modules/sass-loader/dist/cjs.js??ruleSet[1].rules[0].use[2]!/src/mys
tyles.scss 204 KiB [built] [code generated]
webpack 5.77.0 compiled successfully in 2800 ms

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>npm run build

> bulma-project@1.0.0 build
> webpack --mode production

asset css/mystyles.css 110 KiB [emitted] (name: main)
asset js/bundle.js 349 bytes [compared for emit] [minimized] (name: main)
Entrypoint main 111 KiB = css/mystyles.css 110 KiB js/bundle.js 349 bytes
orphan modules 113 KiB (javascript) 937 bytes (runtime) [orphan] 7 modules
runtime modules 274 bytes 1 module
cacheable modules 77 bytes (javascript) 110 KiB (css/mini-extract)
  javascript modules 77 bytes
    ./src/index.js 27 bytes [built] [code generated]
    ./src/mystyles.scss 50 bytes [built] [code generated]
  css modules 110 KiB
    css ./node_modules/css-loader/dist/cjs.js!/node_modules/sass-loader/dist/cjs.js??ruleSet[1].rules[0].use[2]!/src/m
ystyles.scss 68 bytes [built] [code generated]
    css ./node_modules/css-loader/dist/cjs.js!/node_modules/sass-loader/dist/cjs.js??ruleSet[1].rules[0].use[2]!/src/m
ystyles.scss (1) 110 KiB [built] [code generated]
webpack 5.77.0 compiled successfully in 624 ms

C:\Users\Asus TUF\Desktop\учёба 4 семестр\КП\ЛР 4\bulma-project>
```

Открыл `index.html`.

