

## REACT

### #1 - Indecision APP

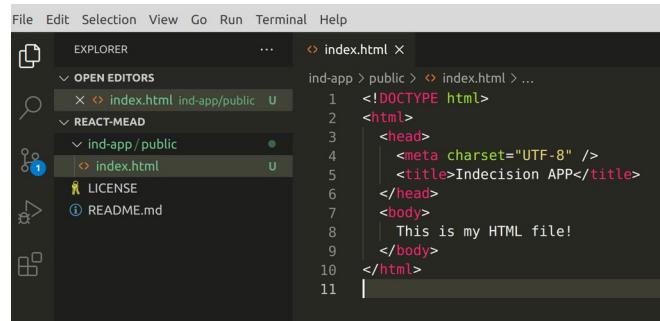
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## 3 Start with REACT

### 3.1 Basic setup (before REACT) 007

Create a new repository on GitHub. Clone it to a local folder. Create a simple HTML file.



The screenshot shows the Visual Studio Code interface. The Explorer sidebar on the left lists a project structure: 'REACT-MEAD' with a 'public' folder containing 'index.html'. The 'index.html' file is open in the main editor area. The code content is:

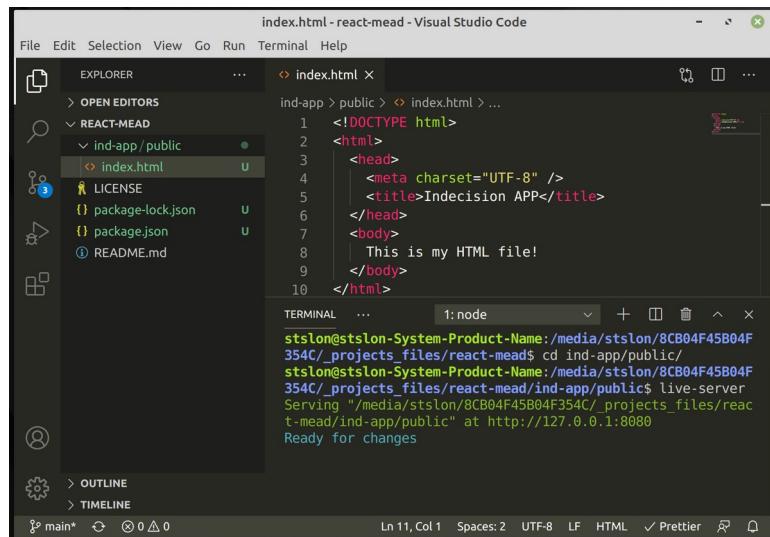
```
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8" />
<title>Indecision APP</title>
</head>
<body>
    This is my HTML file!
</body>
</html>
```

Npm init [CLI=> **npm init -y**]

Install live server [CLI=> **sudo npm install -g live-server**]

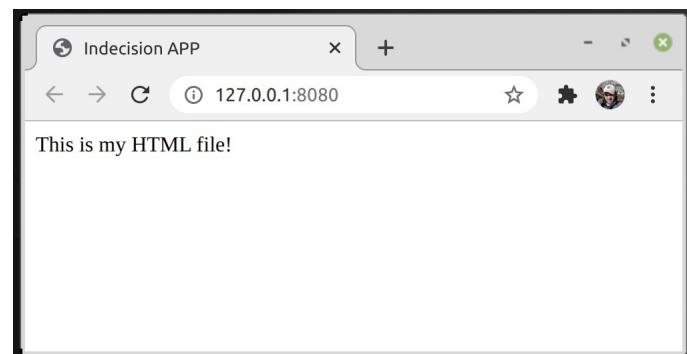
Go to a folder ind-app/public [CLI=> **cd ind-app/public**]

Start a server [CLI=> **live-server**]



The screenshot shows the Visual Studio Code interface with the 'REACT-MEAD' project open. The terminal at the bottom shows the command 'live-server' being run and its output:

```
stslon@stslon-System-Product-Name:/media/stslon/8CB04F45B04F354C/_projects_files/react-mead$ cd ind-app/public/
stslon@stslon-System-Product-Name:/media/stslon/8CB04F45B04F354C/_projects_files/react-mead/ind-app/public$ live-server
Serving "/media/stslon/8CB04F45B04F354C/_projects_files/react-mead/ind-app/public" at http://127.0.0.1:8080
Ready for changes
```



## 3.2 Create a React APP (scripts) 008

Add div 'app' and 3 scripts to index.html and create **public/scripts/app.js**

```

File Edit Selection View Go Run Terminal Help
EXPLORER index.html
OPEN EDITORS
REACT-MEAD ind-app > public > index.html > ...
index.html
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="UTF-8" />
5     <title>Indecision APP</title>
6   </head>
7   <body>
8     <div id="app"></div>
9     <script src="http://unpkg.com/react@16.0.0/umd/react.development.js"></script>
10    <script src="http://unpkg.com/react-dom@16.0.0/umd/react-dom.development.js"></script>
11    <script src="/scripts/app.js"></script>
12  </body>
13 </html>
14

```

JSX is a JavaScript XML. BABEL is a JavaScript compiler (it convert modern simple ES6 or ES7 to ES5)

Babel - The compiler for next

?browsers=defaults%2C%20not%20ie%2011%2C%20not%20ie%2010%2C%20not%20ff%203.10

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```

1 const template = <h1 id='someID'>This
is JSX from app.js</h1>
2
3 const template =
/*#__PURE__*/React.createElement("h1",
{
4   id: "someID"
5 }, "This is JSX from app.js");

```

File Edit Selection View Go Run Terminal Help

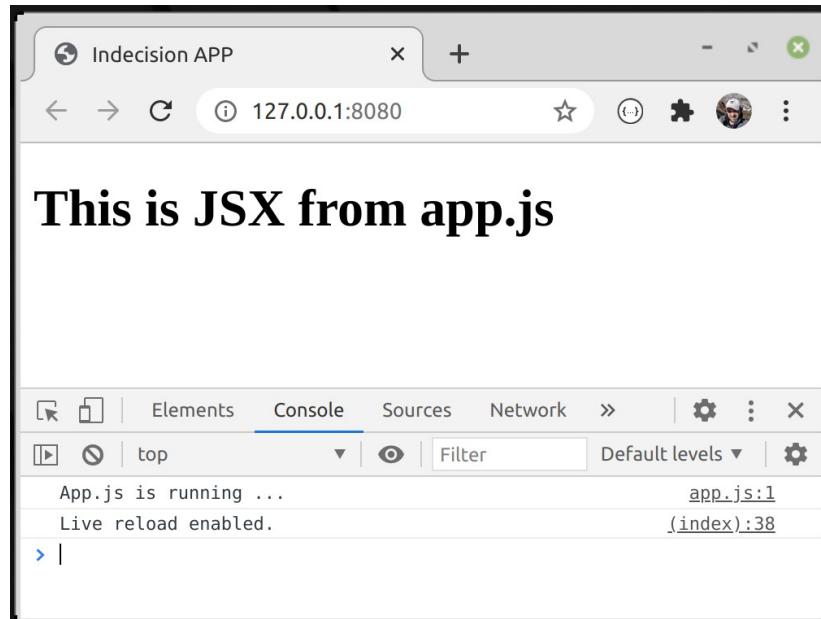
EXPLORER JS app.js

OPEN EDITORS
REACT-MEAD ind-app > public > scripts > JS app.js > ...
JS app.js

```

1 console.log('App.js is running ...');
2
3 //JSX - JavaScript XML
4 const template = React.createElement(
5   'h1',
6   {
7     id: 'someID',
8   },
9   'This is JSX from app.js'
10 );
11
12 let appRoot = document.getElementById('app');
13
14 ReactDOM.render(template, appRoot);

```



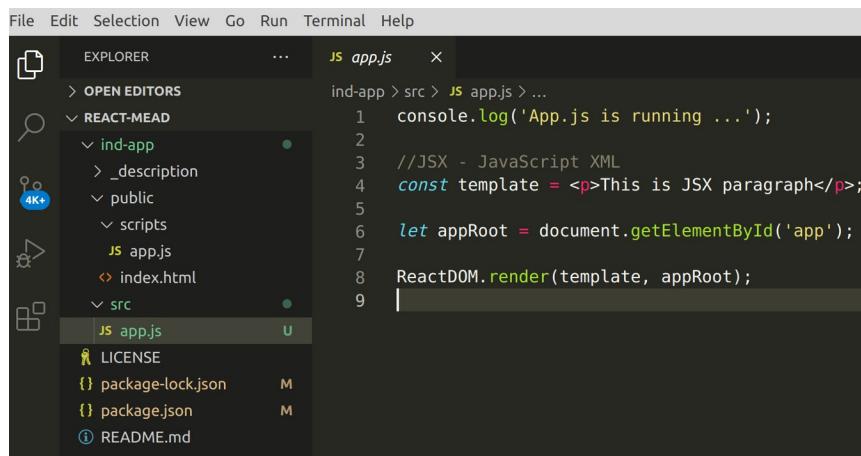
### 3.3 Using BABEL to compile JSX to ES5 009

Install babel v.6.24.1 [CLI=> **npm i -g babel-cli@6.24.1**]

Install babel-preset-react v.6.24.1 and babel-preset-env v.1.5.2 [CLI=> **sudo npm i babel-preset-react@6.24.1 babel-preset-env@1.5.2**]

Now we are able to use JSX.

Create a file **src/app.js** with JSX

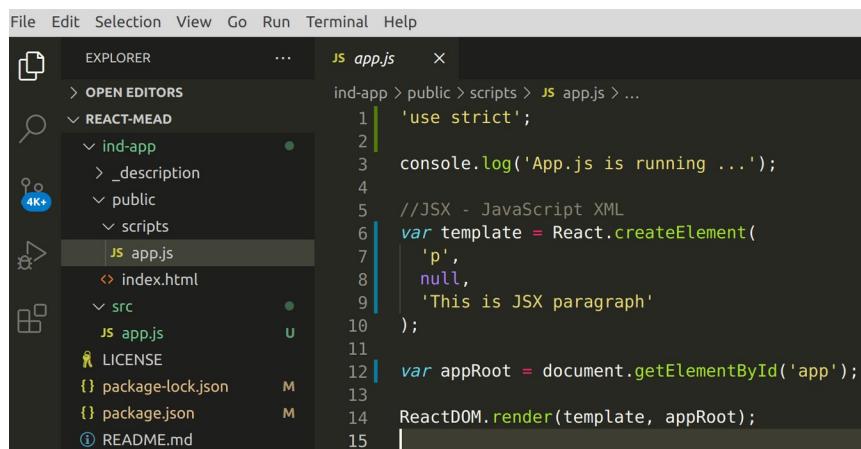


The screenshot shows the VS Code interface. The Explorer sidebar on the left displays a project structure with folders like 'REACT-MEAD', 'ind-app', 'public', and 'src'. Inside 'src', there is an 'app.js' file. The main code editor window on the right contains the following JSX code:

```
1 console.log('App.js is running ...');
2
3 //JSX - JavaScript XML
4 const template = <p>This is JSX paragraph</p>;
5
6 let appRoot = document.getElementById('app');
7
8 ReactDOM.render(template, appRoot);
9
```

USE BABEL with CLI: [CLI=> **babel src/app.js --out-file=public/scripts/app.js –presets=env,react --watch**]

This command will create **public/scripts/app.js** with ES5 syntax of **src/app.js** and will track all the changes on **src/app.js** and immediately change **public/scripts/app.js**



The screenshot shows the VS Code interface after running the BABEL command. The Explorer sidebar remains the same. The main code editor window now displays the ES5-compiled version of the code from the previous screenshot:

```
1 'use strict';
2
3 console.log('App.js is running ...');
4
5 //JSX - JavaScript XML
6 var template = React.createElement(
7   'p',
8   null,
9   'This is JSX paragraph'
10 );
11
12 var appRoot = document.getElementById('app');
13
14 ReactDOM.render(template, appRoot);
15
```

