



What does Javascript do?

- Make pages interactive
- It is a scripting language

Where it can be placed?

- In the head or body section of an html page
- In a separate .js file(linked to by src = "filename.js" in the script tags)

Javascript Objects

Objects are everything in Javascript

A string is an example of an object

Examples of Javascript objects are:-

- Numbers
- Functions
- Arrays

Create a variable

```
var Subjects = [Art, Maths, Geography, Physics]
```

Javascript Functions

```
Function divide (a,b){
```

```
function divide (a,b){
```

```
return a/b
```

```
}
```

The following code is an example to use an ID for text that will displayed as headings

```
< h2 id= "heading"></h2>
```

```
<document.getElementById("heading").innerHTML = subjects
```

Javascript Objects and Arrays

An object is a collection of data not in order and put in braces { }.

Arrays are a collection of values in order and are put in brackets [ ].

Example of object: {"Size":13, "Colour": "Brown"}

Example of Array: ["Boxes", "Envelope", "Sellotape"]

Javascript Object Notation(JSON)

Has [{ }], [ ]

Object pairs are put in speech marks and separated by commas such as {["Size":13, "Colour: Orange"]}

Is made of objects and arrays. Objects have braces { } and arrays have brackets [ ].

Example:

```
{ "Mailorder Business" : {  
    "Packaging": [  
        { "Type": "Boxes",  
          "Colour": "White",  
        },  
        { "Type": "Envelopes",  
          "Colour": "White",  
        },  
    ],  
    "Supplies": [  
        { "Type": "Bubble wrap",  
          "Colour": "Brown",  
        },  
    ],  
}
```

JSON code begins as this:

```
render(){
```

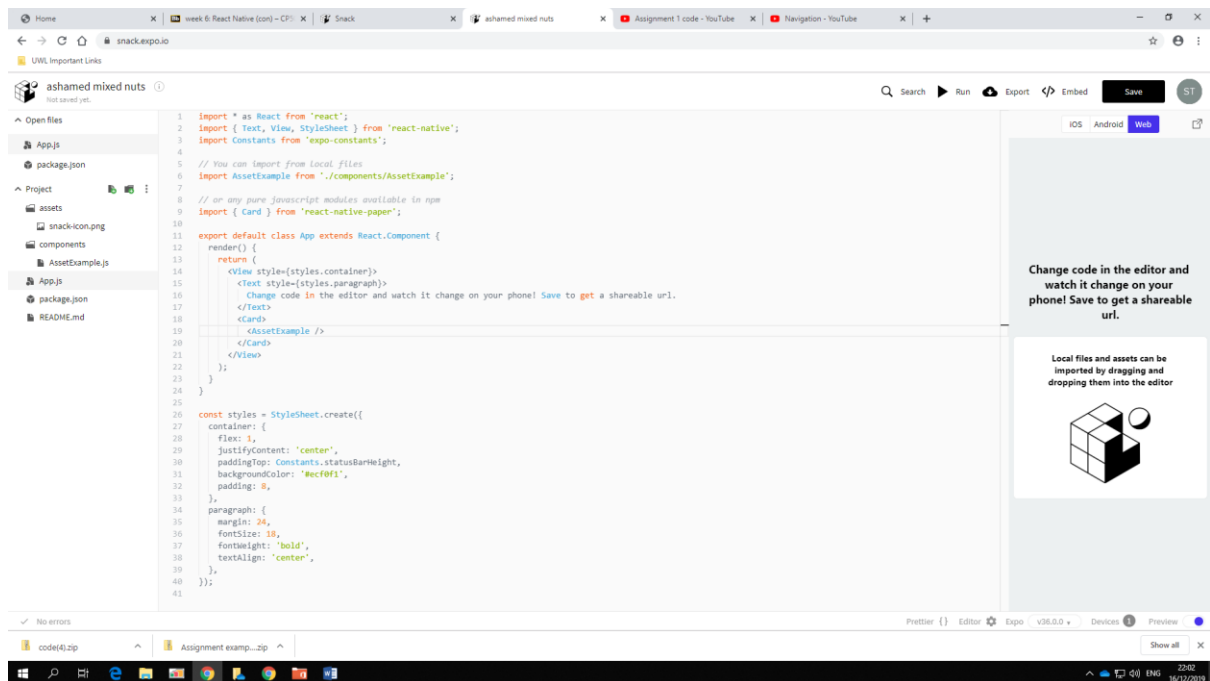
```
return
```

```
<view>
```

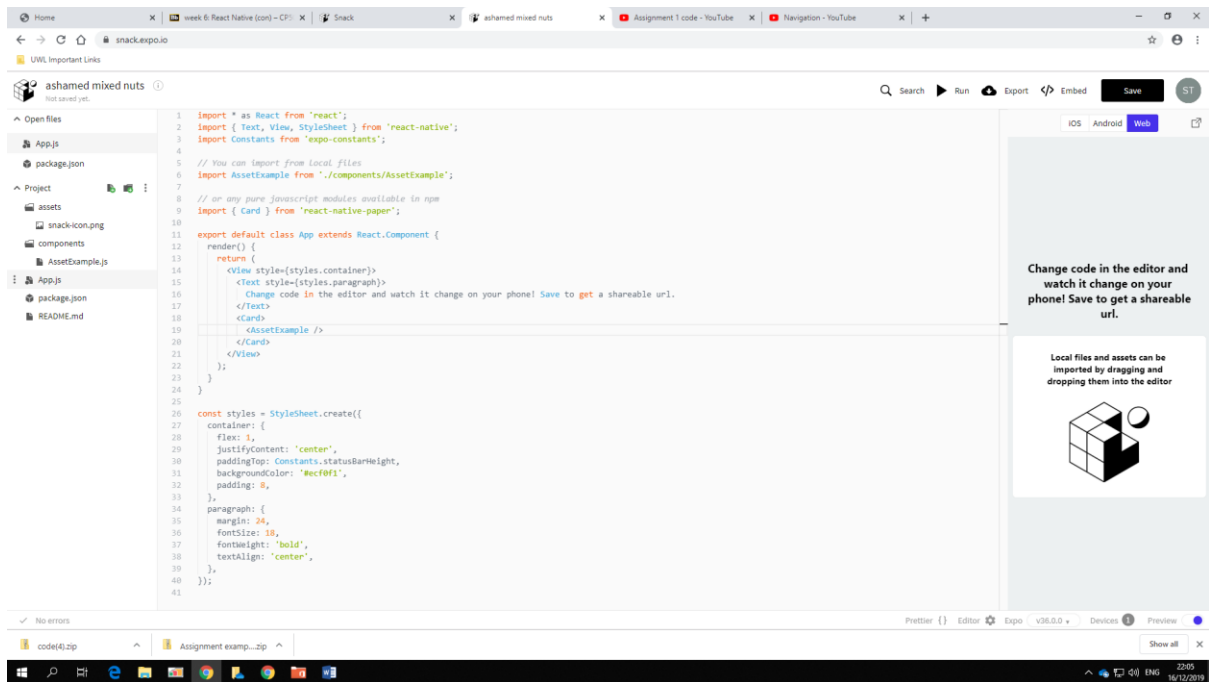
```
<text style = >Enter reg plate no. </text>
```

```
<TextInput          onChangeText
```

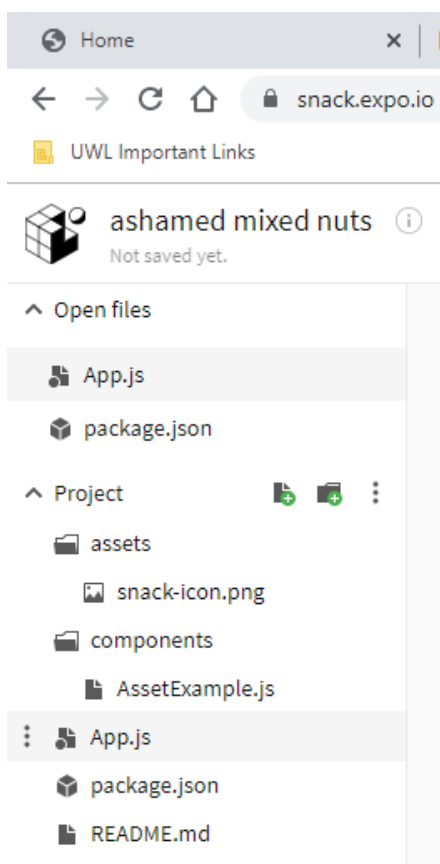
Here are the code like this I am working on:



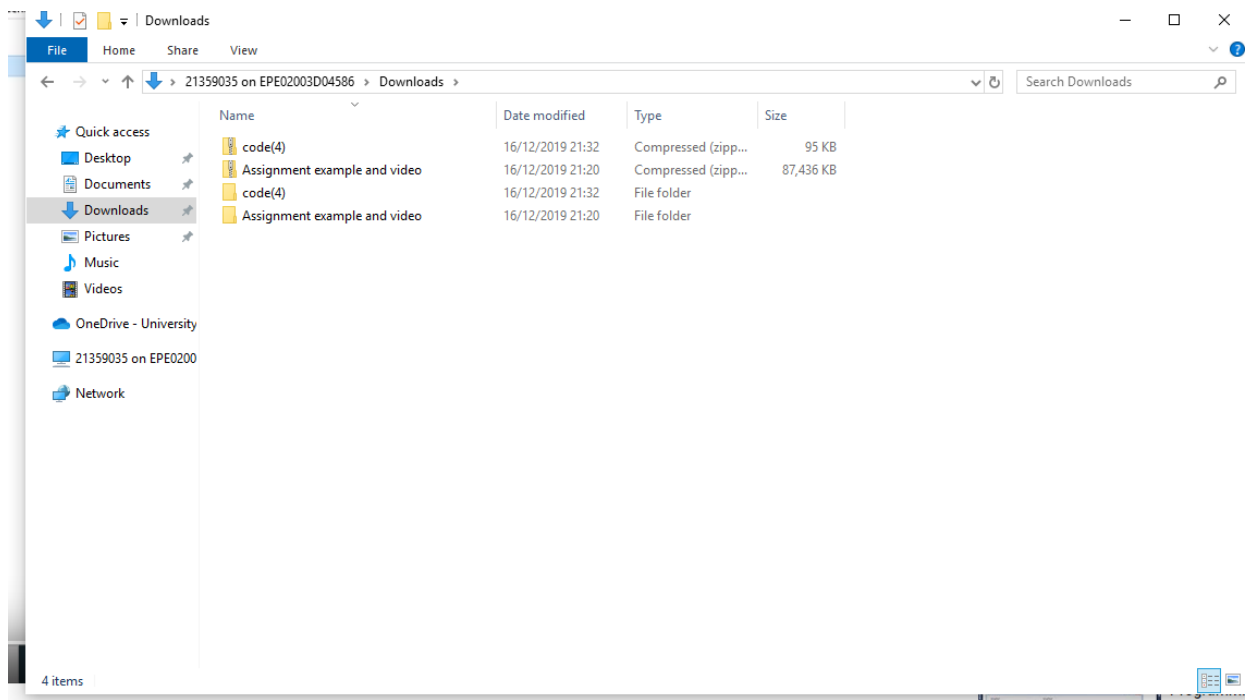
It starts as this on the interconnected network of computers or the internet or online.



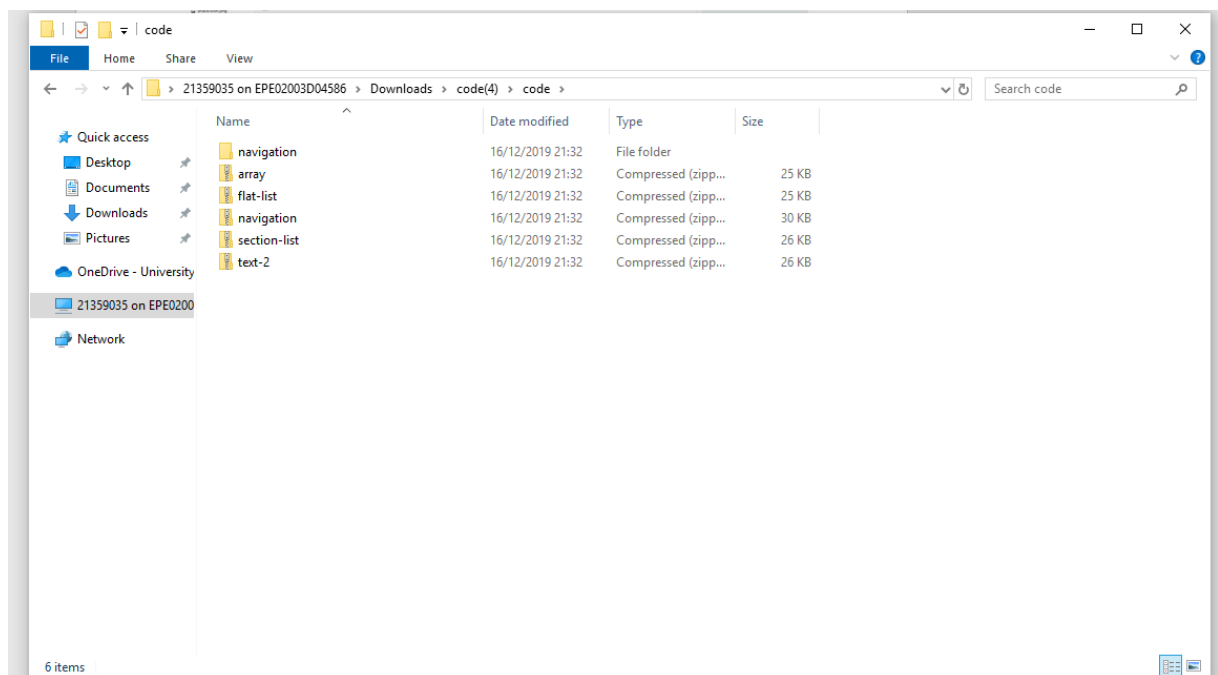
First we need to import files written in the Javascript programming language, stored on the hard disk of the computer.



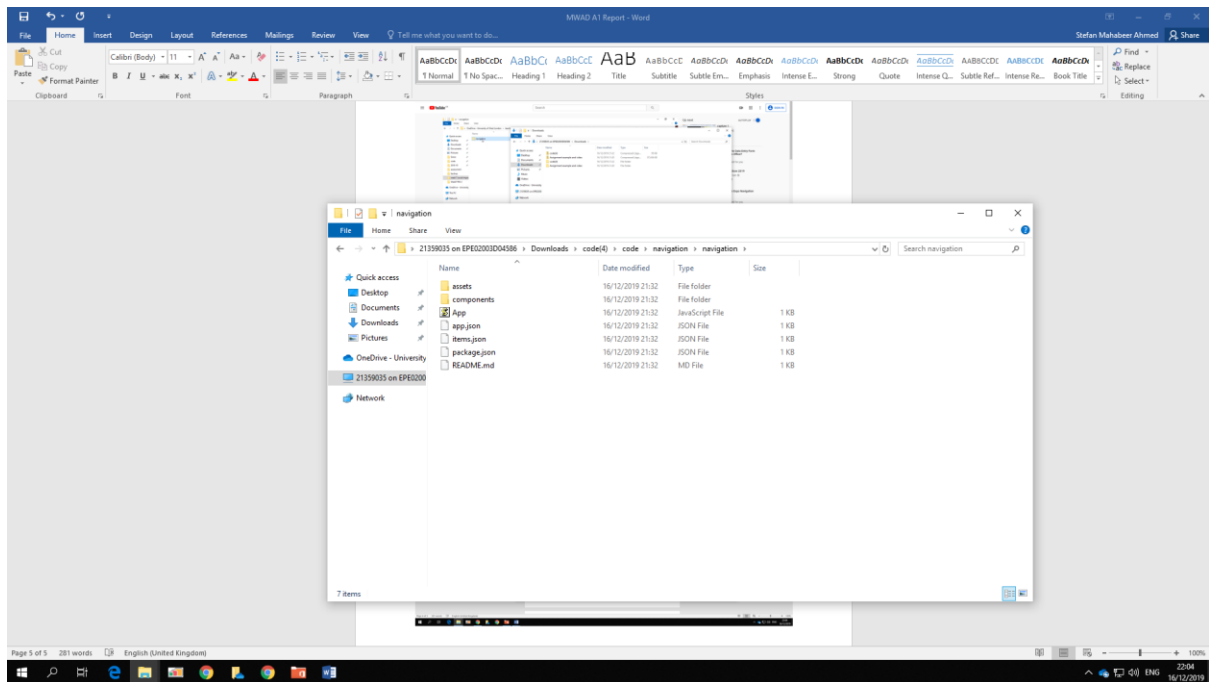
Do this by clicking on the drop down combo box on the right of Project given by three dots. Click on Import and it the folder on the computer where files are stored will open.



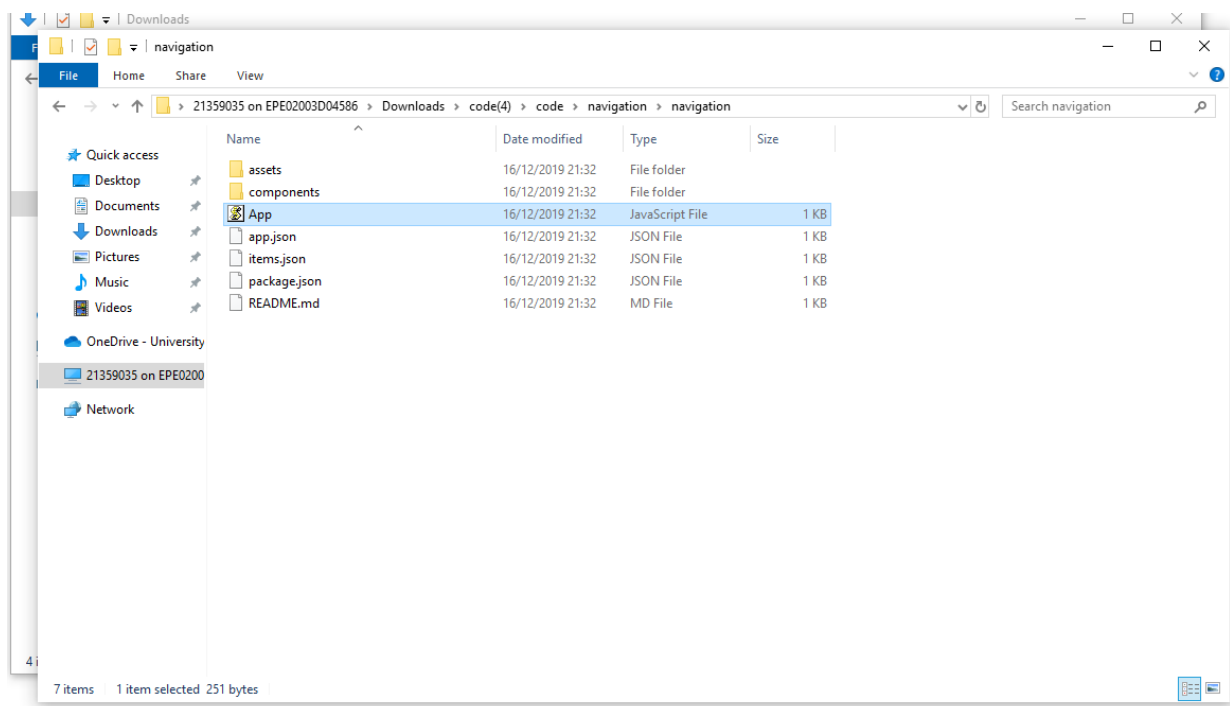
In the downloads folder are folders and code files to be imported. I open the code(4) folder

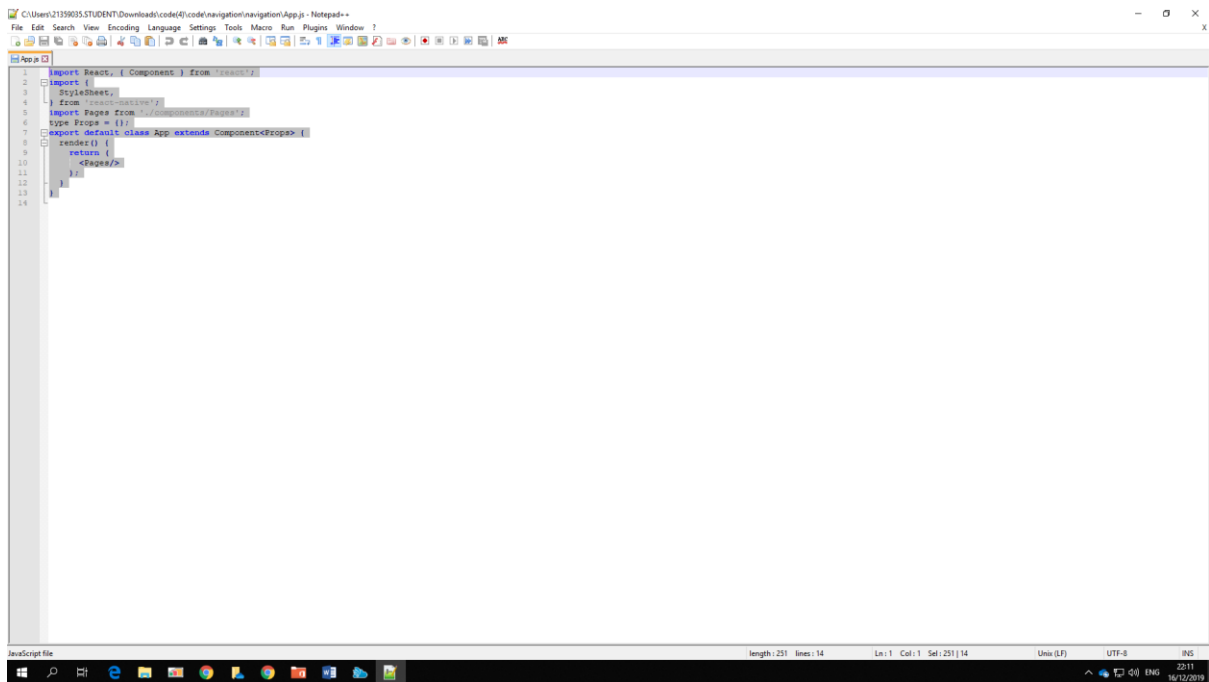


Here are folders to be unzipped i.e. compressed folder to uncompress. The navigation folder has been unzipped.



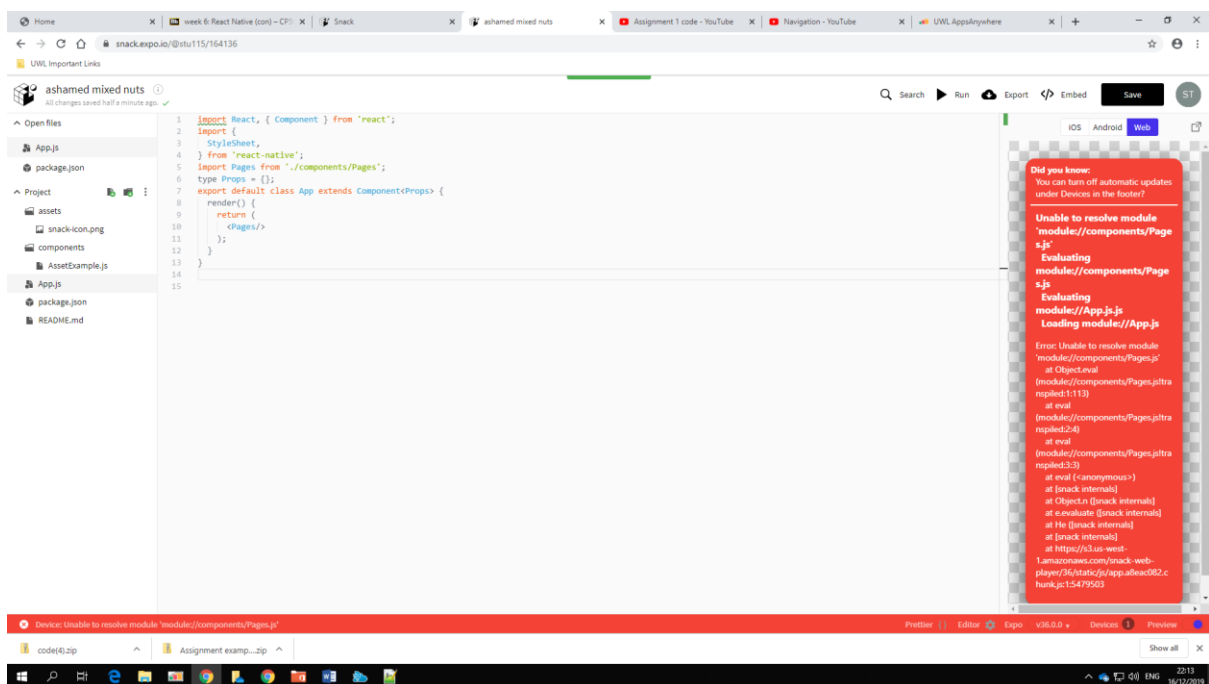
In navigation is the components folder with all the Javascript files to be imported.



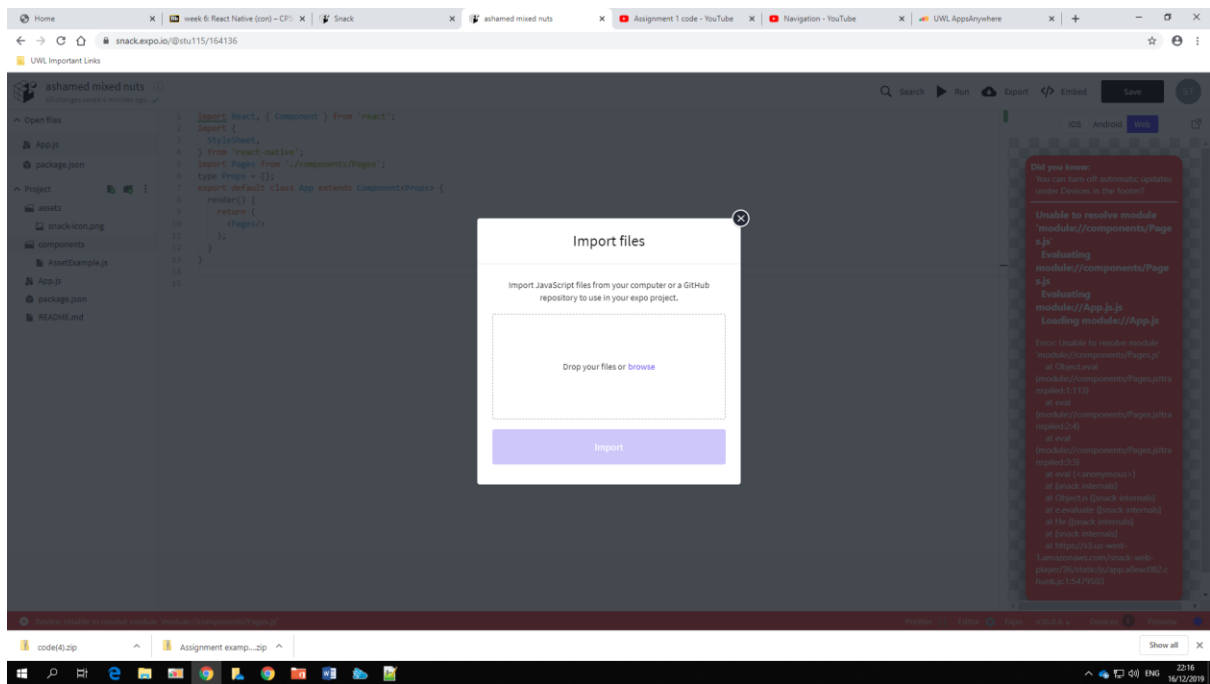
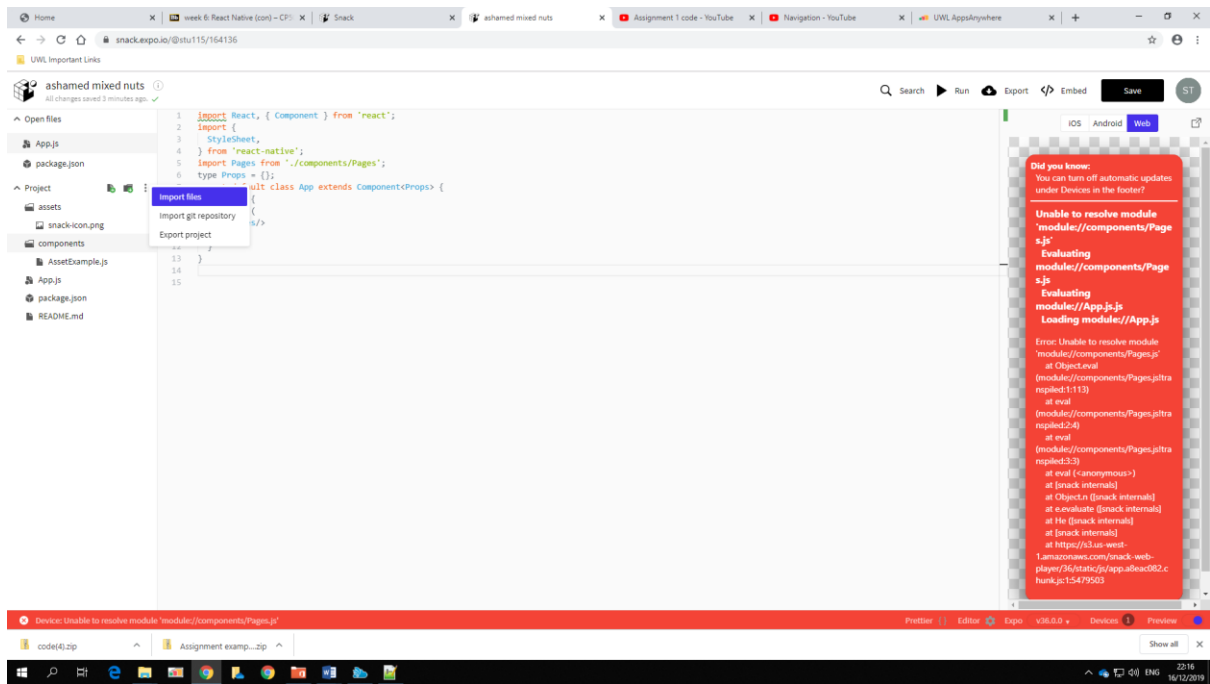


```
1 import React, { Component } from 'react';
2 import {
3   StyleSheet,
4   from 'react-native';
5   import Pages from './components/Pages';
6   type Props = {}
7   export default class App extends Component<Props> {
8     render() {
9       return (
10         <Pages/>
11       );
12     }
13   }
14 }
```

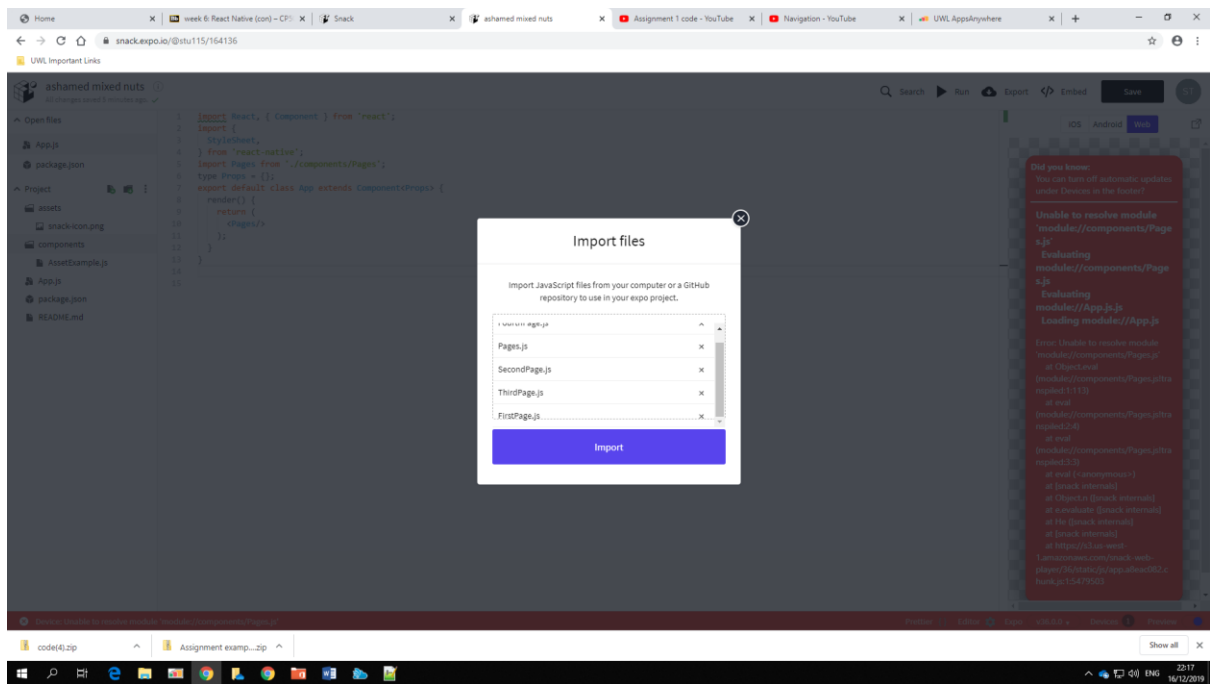
Open the App file which is a Javascript file in notepad++. The javascript programming code here is small and is a component. This is to import...and export...followed by the function which returns a value...

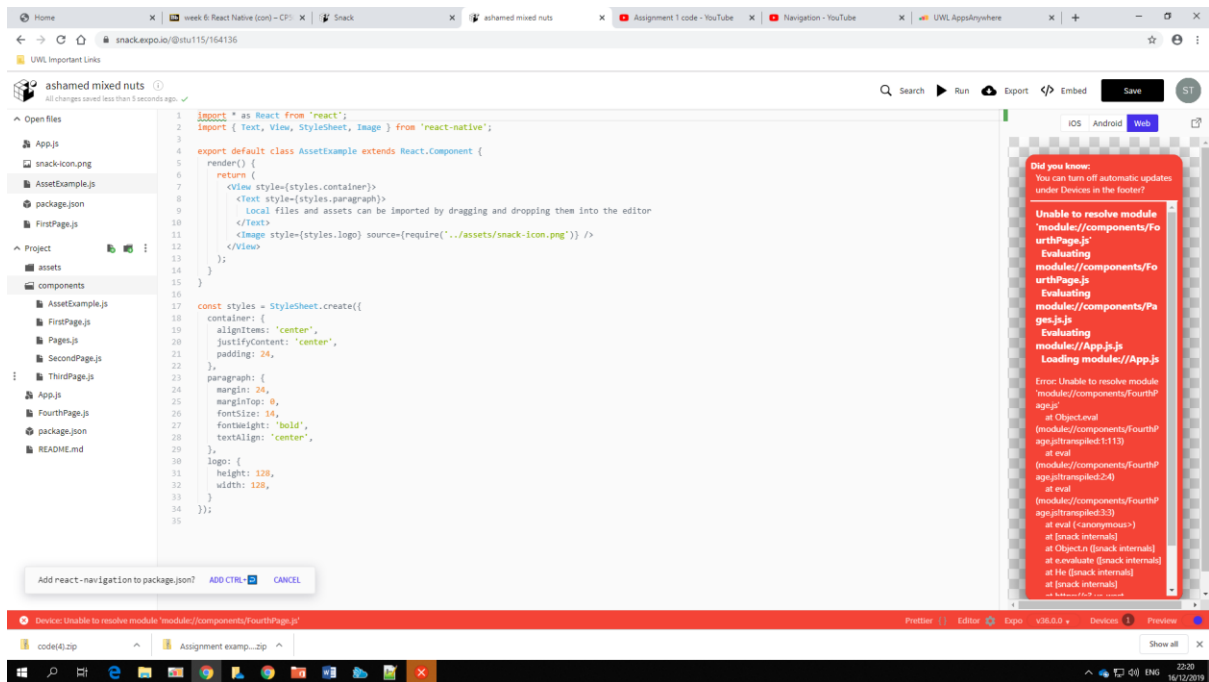




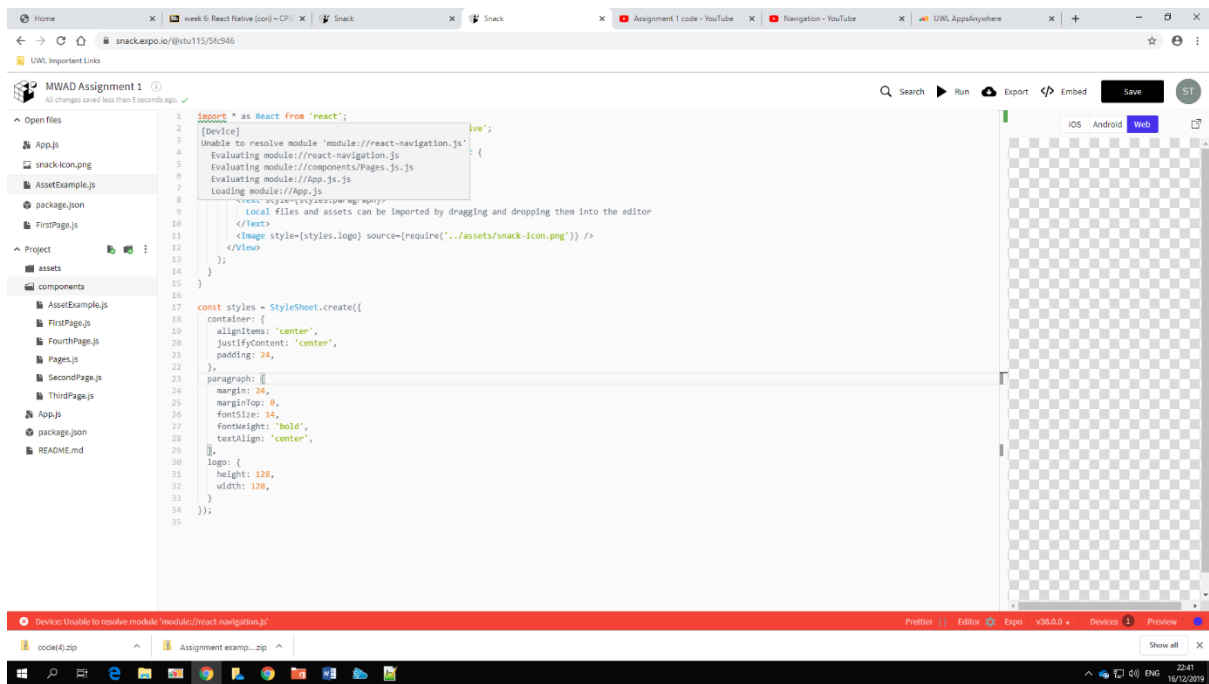


Here I bring the files to the site by dragging them to the Import files dialog box and clicking Import.

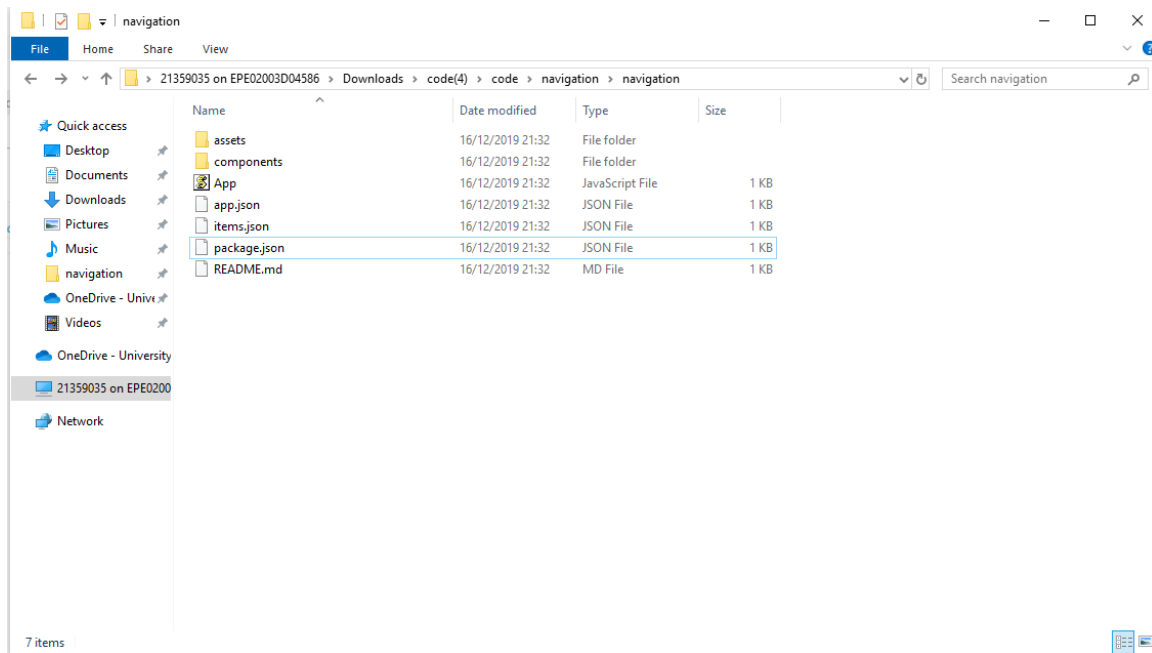




I now have a project with a components folder of the JS files brought to the site.



This is a list i.e. one of the array lists since the prices are going to be listed in order from lowest to highest. It needs brackets [ ] on the top line and on the bottom line.

A screenshot of the Notepad++ application window. The title bar reads 'C:\Users\21359035.STUDENT\Downloads\code(4)\code\navigation\navigation\package.json - Notepad++'. The menu bar includes File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, and ?. The toolbar contains various icons for file operations. The editor shows the following JSON content:

```
1 {
2   "name": "navigation",
3   "version": "0.0.0",
4   "description": "No description",
5   "author": null,
6   "private": true,
7   "main": "node_modules/expo/AppEntry.js",
8   "dependencies": {
9     "expo": "^35.0.0",
10    "react": "16.8.3",
11    "react-native": "https://github.com/expo/react-native/archive/sdk-35.0.0.tar.gz",
12    "lottie-react-native": "2.6.1",
13    "react-native-maps": "0.25.0",
14    "react-native-screens": "1.0.0-alpha.23",
15    "react-native-gesture-handler": "1.3.0",
16    "react-native-reanimated": "1.2.0",
17    "react-native-svg": "9.9.2",
18    "react-navigation": "^1.0.0-beta.11",
19    "react-native-paper": "2.16.0"
20  }
21 }
```

Go to the json file package.json and open it in notepad ++. Here are the list of keys. I only need the key at the bottom “react-navigation”: “^1.0.0=beta.11” which I copy and paste into the package.json file.

Open files
App.js
snack-icon.png
AssetExample.js
package.json
FirstPage.js
Project
assets
components
AssetExample.js
FirstPage.js
FourthPage.js
Pages.js
SecondPage.js
ThirdPage.js
App.js
package.json
README.md

```

1 {
2   "dependencies": {
3     "react-navigation": "^1.0.0-beta.11",
4     "react-native-paper": "3.1.1"
5   }
6 }

```

It is pasted here. These are like objects which are placed in braces.

MWAD Assignment 1 ⓘ  
All changes saved about 2 hours ago. ✓

Open files
App.js
Pages.js
package.json
Project
assets
components
AssetExample.js
FirstPage.js
FourthPage.js
Pages.js
SecondPage.js
ThirdPage.js
App.js
package.json
README.md

```

1 import React, { Component } from 'react';
2 import FirstPage from './FirstPage';
3 import SecondPage from './SecondPage';
4 import ThirdPage from './ThirdPage';
5 import FourthPage from './FourthPage';
6 import {
7   StackNavigator,
8   TabNavigator,
9   DrawerNavigator
10 } from 'react-navigation';
11 export default class Pages extends Component {
12   constructor(props) {
13     super(props);
14   }
15   render() {
16     return (
17       <SimpleAppNavigator/>
18     );
19   }
20 }
21 const SimpleAppNavigator = TabNavigator({
22   page1: {screen: FirstPage},
23   page2: {screen: SecondPage},
24   page3: {screen: ThirdPage},
25   page4: {screen: FourthPage}
26 }, {
27   initialRouteName: 'page1',
28   swipeEnabled: true

```

IOS
Android
Web

This is our Record mailorder business

PAGE 1 PAGE 2 PAGE3 PAGE4

No errors
Prettier {} Editor
Expo v36.0.0
Devices 1
Preview
02:08 28/12/2019

The first page takes code from the FirstPage file by the import code beginning with Import and the same for the second, third and fourth pages.

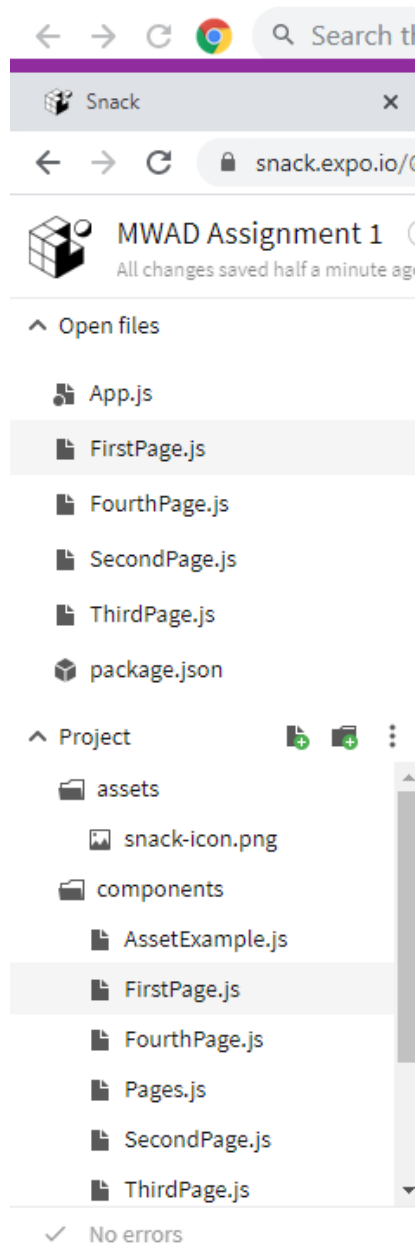
```

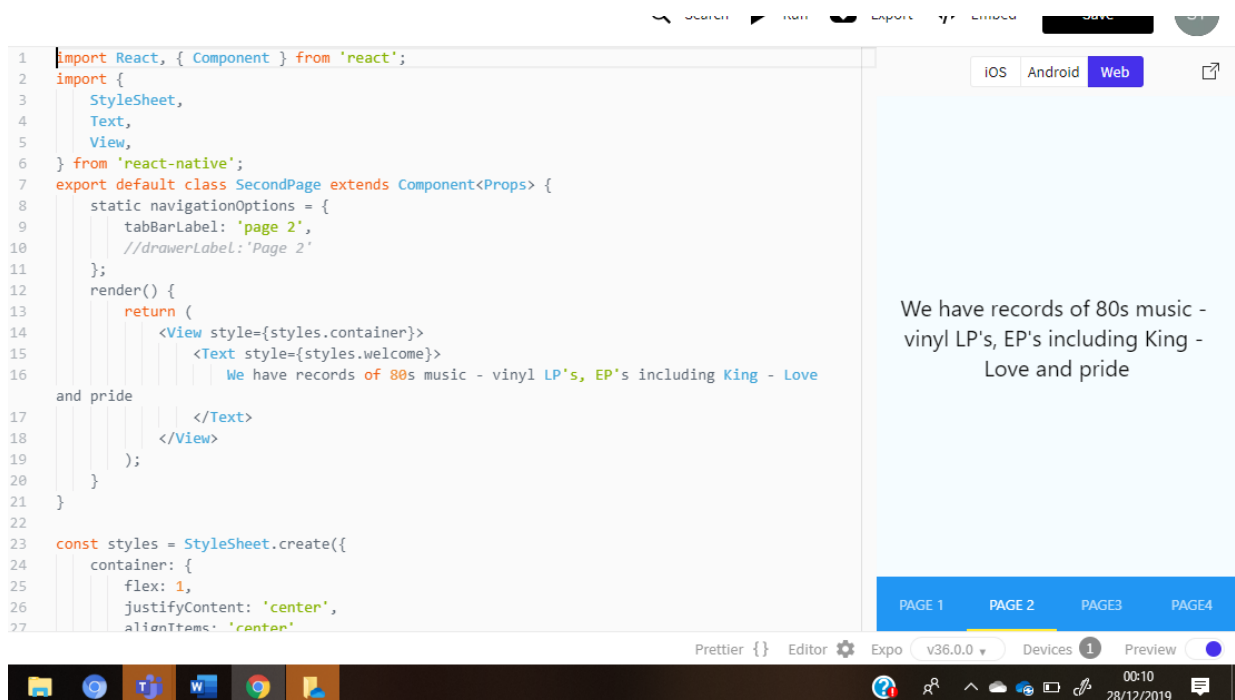
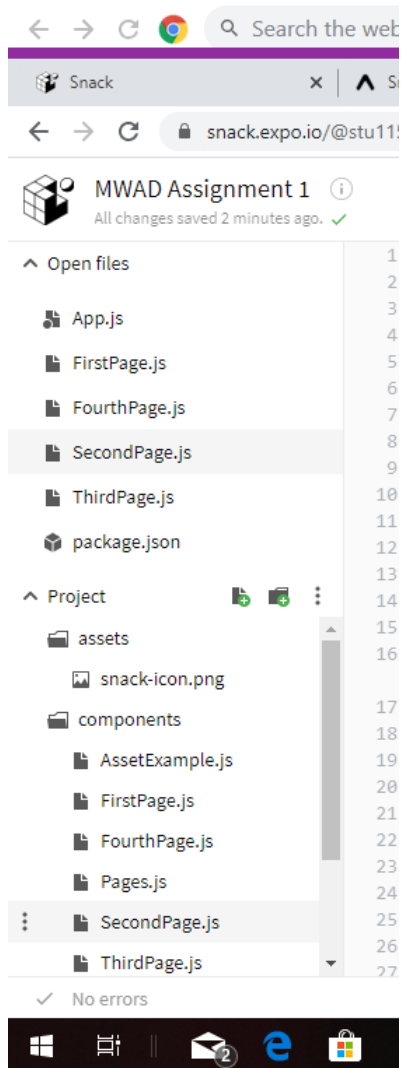
1  import React, { Component } from 'react';
2  import {
3    StyleSheet,
4    Text,
5    View,
6  } from 'react-native';
7  export default class First extends Component {
8    static navigationOptions = {
9      tabBarLabel: 'Page 1',
10     //drawerLabel: 'Page 1'
11   };
12   render() {
13     return (
14       <View style={styles.container}>
15         <Text style={styles.welcome}>
16           This is our Record mailorder business - Crotchet Central
17         </Text>
18       </View>
19     );
20   }

```

For the page we have all this code with a function that returns a text in a specific style.

In the render function are text elements with the style attribute so I that I can enter and edit text. I enter text introducing our mailorder business. The style of the entered text is already set in the style attribute by styles.welcome in braces. The word 'styles' followed by the dot notation in our code gives it that style.



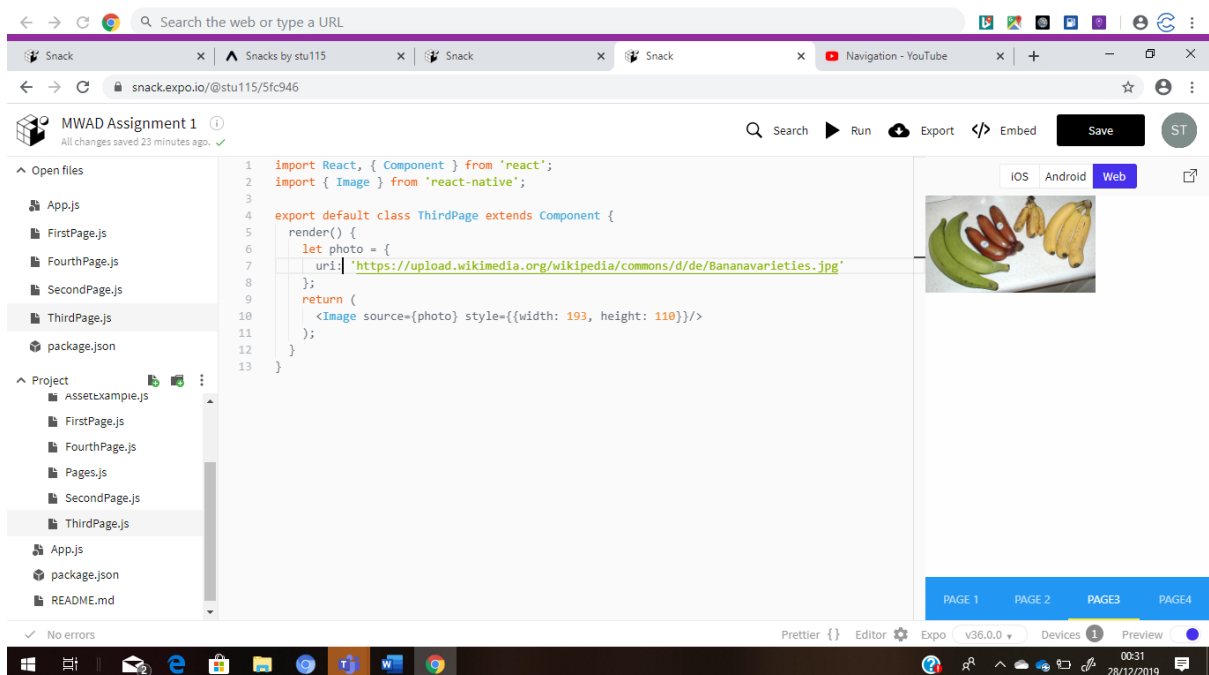




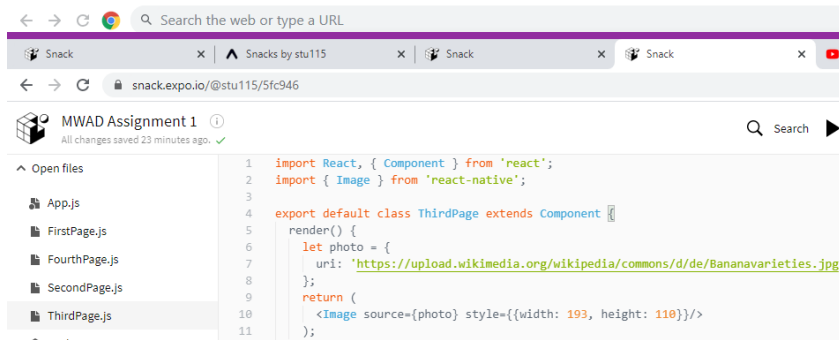
For page two I do the same thing to the text in the elements in the return function.

```
11     };
12     render() {
13       return (
14         <View style={styles.container}>
15           <Text style={styles.welcome}>
16             We have records of 80s music - vinyl LP's, EP's including King - Love
17           </Text>
18         </View>
19       );
20     }
21   }
22
23   const styles = StyleSheet.create({
24     container: {
25       flex: 1,
26       justifyContent: 'center',
27       alignItems: 'center',
28       backgroundColor: '#F5FCFF',
29     },
30     welcome: {
31       fontSize: 20,
32       textAlign: 'center',
33       margin: 10,
34     },
35   });
36
37 }
```

Prettier {} Editor ⚙



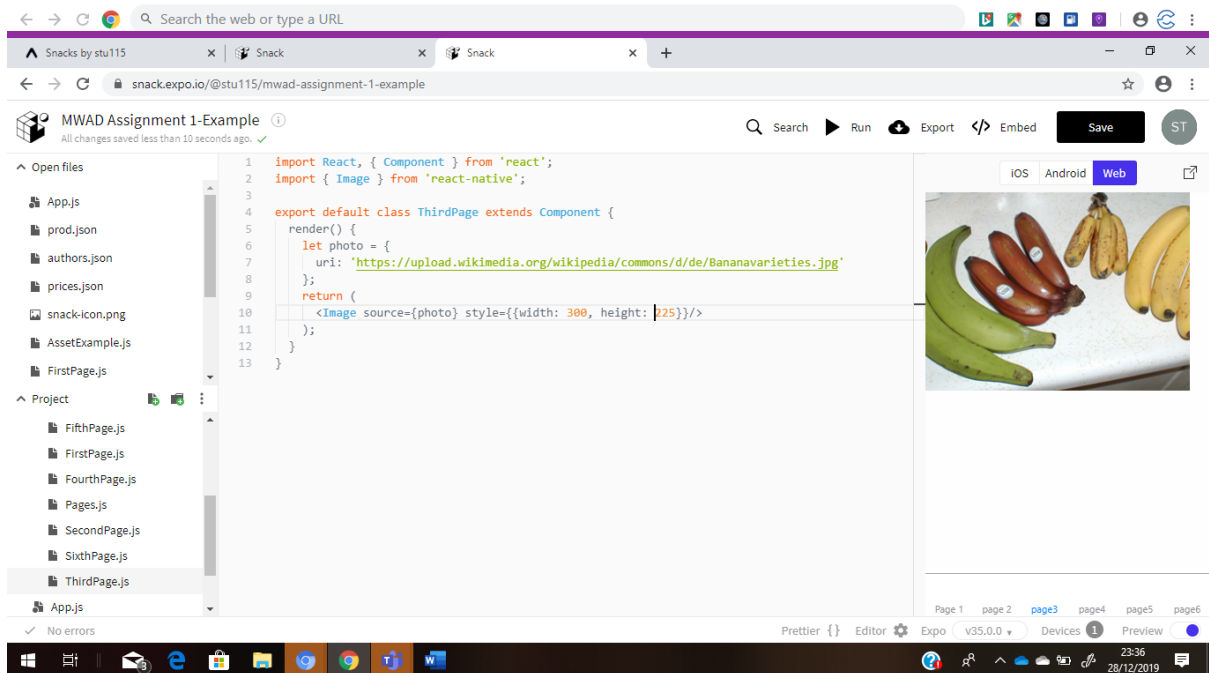
I now go to third page.js. The code in this file puts the image on the third page. The url in the render function is the link to the image...

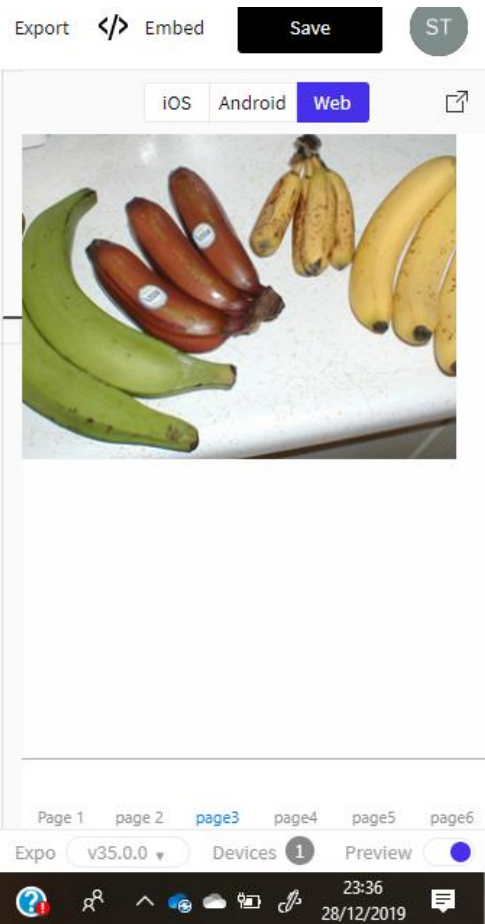


Here the size of the image can be adjusted by changing the width and the height in the style attribute in the js file.



The variable is photo, first followed by let, which is then used to put the picture on the site in the source attribute for the Image element.





```
1 import React from 'react';
2 import { FlatList, Text, View } from 'react-native';
3
4 export default class Weather extends React.Component {
5   componentWillMount(){
6     const localAdsData = require('../assets/prod.json');
7     this.setState({
8       dataSource: localAdsData.products
9     })
10  }
11
12  render() {
13    return (
14      <View style={{ flex: 1, paddingTop: 20 }}>
15        <FlatList
16          data={this.state.dataSource}
17          renderItem={({ item }) => <Text>{item.desc}, {item.size}</Text>}
18          keyExtractor={({ id }, index) => id}
19        />
20      </View>
21    );
22  }
23 }
```

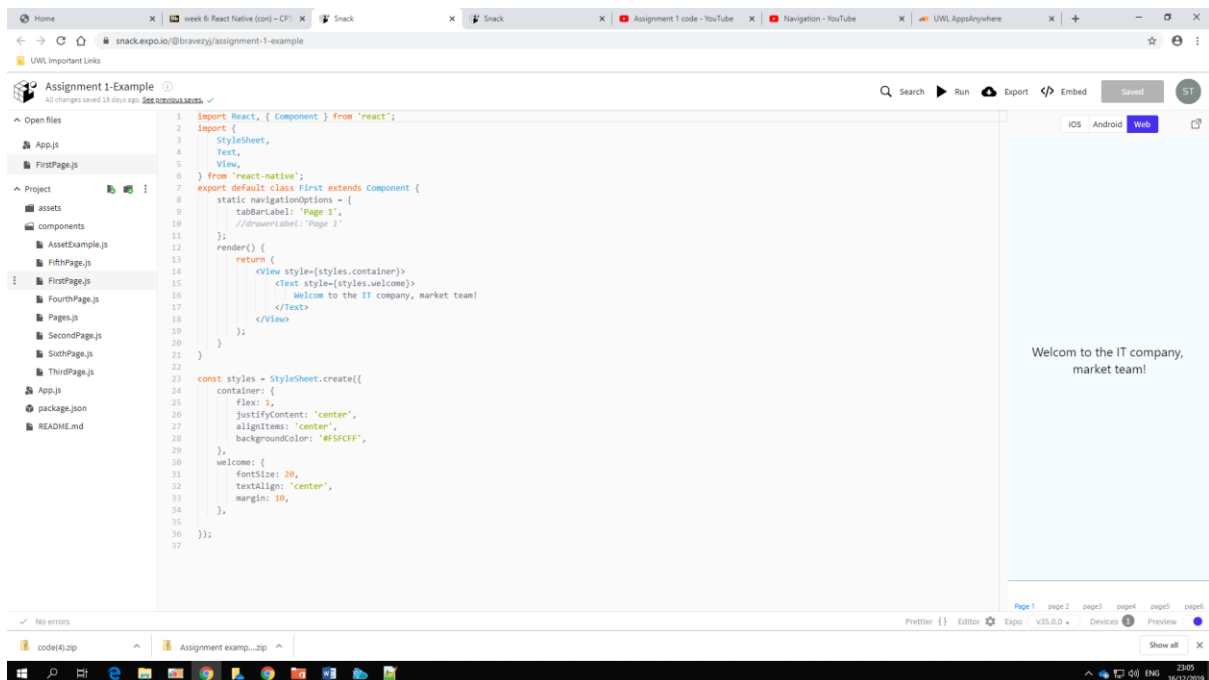
```

import React from 'react';
import { FlatList, Text, View } from 'react-native';

export default class Weather extends React.Component {
  componentWillMount(){
    const localAdsData = require('../assets/prod.json');
    this.setState({
      dataSource: localAdsData.products
    })
  }

  render() {
    return (
      <View style={{ flex: 1, paddingTop: 20 }}>
        <FlatList
          data={this.state.dataSource}
          renderItem={({ item }) => <Text>{item.desc}, {item.size}</Text>}
          keyExtractor={({ id }, index) => id}
        />
      </View>
    );
  }
}

```



Open files

App.js

ads.json

authors.json

prices.json

FourthPage.js

```
1 {
2   "title": "Record LP's and EP's",
3   "description": "Your app fetched this from a remote/local endpoint!",
4   "ads":
5     { "no.": "one", "title": "King LP", "date": "01/02/2019", "contents": "this is the advertisement , in details"},
6     { "no.": "two", "title": "Price 2", "date": "1901/02/201985", "contents": "This is about topic 2" },
7     { "no.": "three", "title": "Price 3", "date": "01/02/2019", "contents": "This is about topic 3" },
8     { "no.": "four", "title": "Price 4", "date": "01/02/2019", "contents": "This is about topic 4" },
9     { "no.": "five", "title": "Price 5", "date": "01/02/2019", "contents": "This is about topic 5" }
10  }
```

This is a list i.e. one of the array lists since the prices are going to be listed in order from lowest to highest. It needs brackets [ ] on the top line and at the bottom of the code.

Open files

App.js

ads.json

authors.json

prices.json

FourthPage.js

package.json

```
1 {
2   "title": "Record LP's and EP's",
3   "description": "Your app fetched this from a remote/local endpoint!",
4   "ads": [
5     { "no.": "one", "title": "King LP", "date": "01/02/2019", "contents": "this is the advertisement , in details"},
6     { "no.": "two", "title": "Price 2", "date": "1901/02/201985", "contents": "This is about topic 2" },
7     { "no.": "three", "title": "Price 3", "date": "01/02/2019", "contents": "This is about topic 3" },
8     { "no.": "four", "title": "Price 4", "date": "01/02/2019", "contents": "This is about topic 4" },
9     { "no.": "five", "title": "Price 5", "date": "01/02/2019", "contents": "This is about topic 5" }
10  ]
11 }
```