W5 *- PRACTICE*

JSX - Dynamic Data - Components

At the end of this practice, you should be able to…

- ✓ Create a new **component** from HTML
- ✓ Translate HTML to **JSX**
- ✓ Understand the basic of **nested components**
- ✓ Draw a **diagram** component from some given code
- ✓ Understand how to display **data dynamically** using curly braces *{xx}* in JSX

How to work?

- ✓ Download **the start code** from the Google classroom
- ✓ For each exercise you can either:
  - Run `npm install`
  - Or move an existing `node_modules` to the exercise folder *(fastest option!)*

How to submit?

- ✓ **Create a repository on GitHub** with the name of this practice:
  Ex: C2-S1-PRACTICE
- ✓ **Push your final code** on this GitHub repository (if you are lost, follow this tutorial)
- ✓ Finally, submit on **Google classroom** your GitHub repository URL
  Ex: `https://github.com/thebest/` C2-S1-PRACTICE`.git`

Are you lost?

You can read the following documentation to be ready for this practice:
https://www.w3schools.com/react/react_jsx.asp
https://www.w3schools.com/react/react_props.asp
https://www.gatsbyjs.com/docs/how-to/images-and-media/importing-assets-into-files/

EXERCISE 1

Your task is to create your first React **component**!

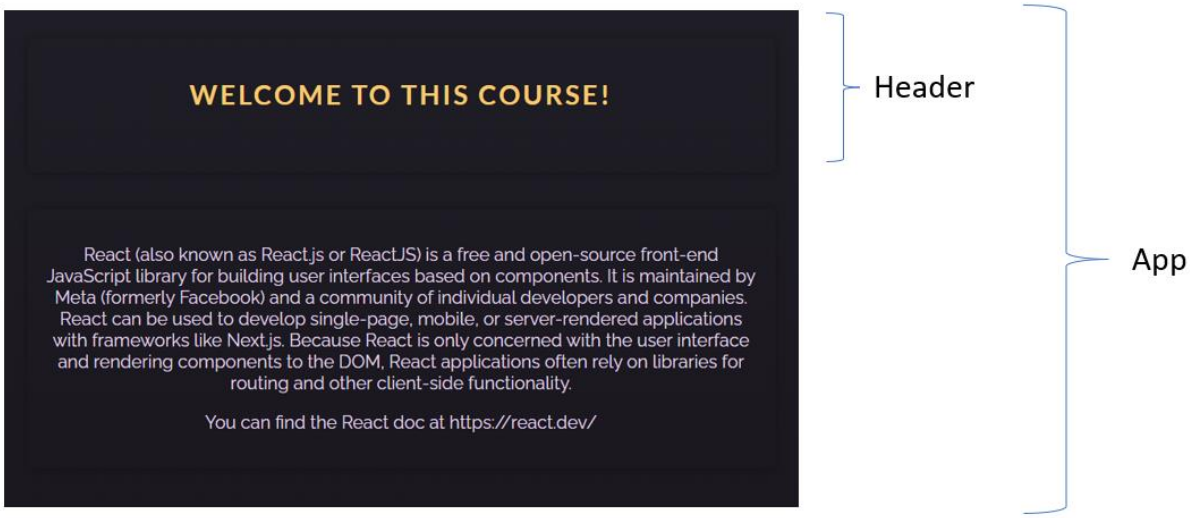
You have an App component, containing the header and the body.

- Create a component **Header** containing the header of the file.
- Change the code in the App component to use this new component

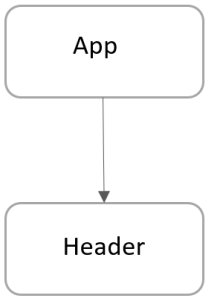
Notes:

- *You can create the component directly in the App file.*

The finished app could look like this:



The finished app diagram component:



EXERCISE 2

Well done!
Now your challenge is to **convert some vanilla HTML** into some React JS code!

Q1 – Research on internet and list down the **main differences** between **HTML** and **JSX** syntax

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Q2 – The first part is to create an **empty React project** which display Hello

- **Create a new React project** using the following command:

```
npm create vite exercise2 -- --template react
```

- On the root folder, **remove** the following useless file:

```
.eslintrc.cjs
README.md
.gitignore
```

- On `/src` folder remove, **remove** the following useless file:

```
/assets
App.css
```

- Edit the index.css and **remove all styles**
- Edit the App.jsx and just write a simple code:

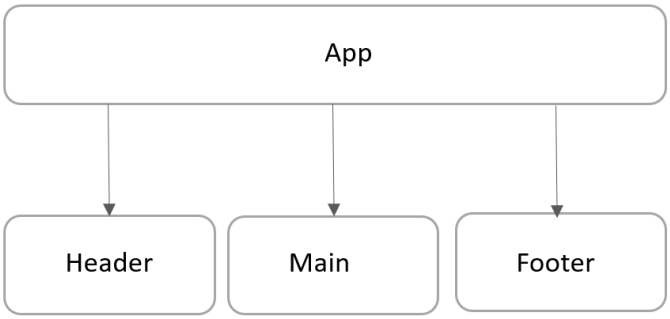
```
function App() {
  return (
    <>
      <p>Hello</p>
    </>
  );
}
export default App;
```

- From the root folder, launch npm install and npm run dev
- You have now a very simple ReactJS code that displays Hello:

Hello

Q3 – On this second part you need to **adapt** the original HTML code to your new created project:

Your code should be composed of 4 components, as bellow:

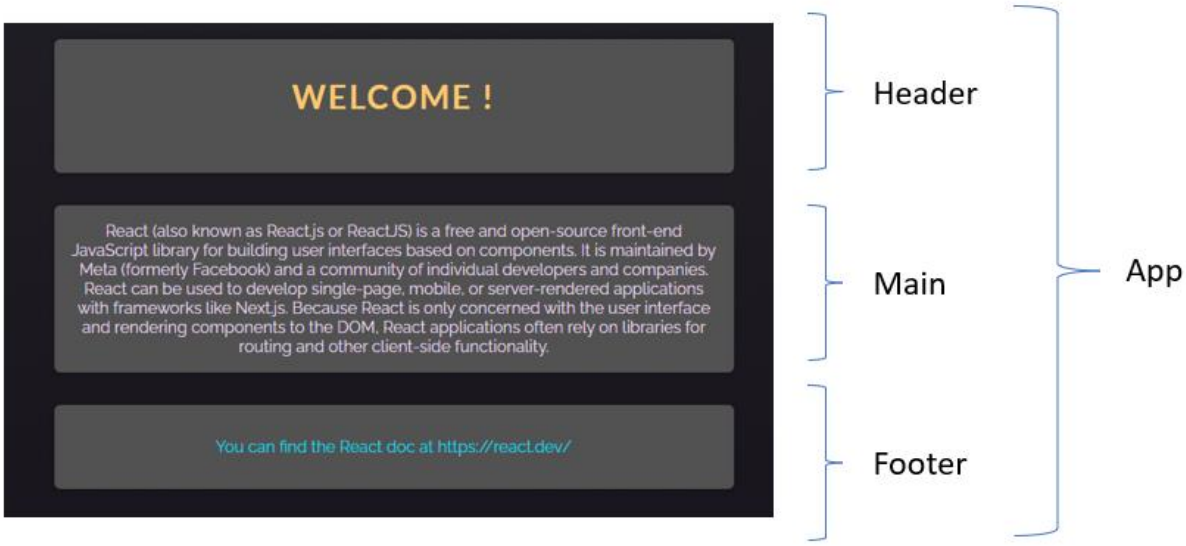


- Create a folder `/components`
- In this folder create 3 additional JSX files:
  - `Header.jsx`
  - `Main.jsx`
  - `Footer.jsx`

- Adapt the code from the original HTML code to those 4 compomers (App, header, Body and Footer)
  - Do not forget to **export** your components to use them outside!

- Finally, you can copy the original CSS code to your new project

The finished app could look like this:

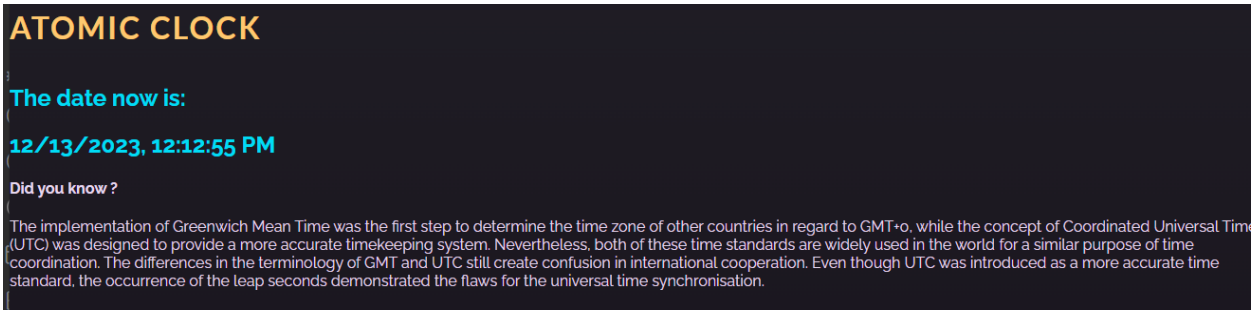


EXERCISE 3

Amazing!

Q1 - Now your challenge is to **draw a diagram component** from some existing React JS code.

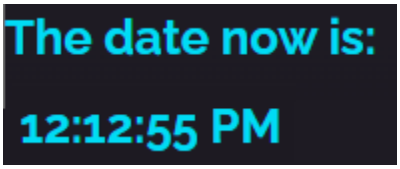
1. Read the code
2. Identify components
3. Draw the diagram component *(using power point or another tool)*



Q2 – Let's **play with dynamic data**:

- In **Header**, change the title to: "The amazing atomic clock"

- In **Time** component, change the code to display only the **time** only (not **date + time**)



EXERCISE 4

Amazoooome!

For this last exercise, your challenge is to provide the dynamic data for the 2 following fields:

- The value (15 dollars) converted in Dong
- The value (15 dollars) converted in Euro

<u>Important</u>

- You need to implement and call the functions already provided for you to convert dollar to other devices
- All inputs are disabled: we use them for display only, not to enter any value…