IMY 220
Practical 6:
React.js

Due: Friday 9 October @ 11:30

The submission instructions are available on ClickUP. Any deviation from these instructions will cause a 10% deduction from your mark.

Instructions

- The aim of this practical is to use React.js to create a form that validates a password and only allows users to submit if the password is valid.
- All of your code for this practical must be written inside your own file called *index.html*.
- You must use CDN versions for the react library and babel.

Section 1: PasswordInput component

Create a file called *index.html* which includes CDN links for all the necessary files for you to use React.js as well as the Bootstrap CSS. Inside *index.html* (in a correctly-created script tag), define a React component called PasswordInput which renders an input box (for the sake of testing, define it as a text-input, not a password-input), which must be styled with Bootstrap. This component must encapsulate functionality for validating its content, i.e. the password, which must be as follows to be valid:

- must be at least 8 characters long
- must contain at least one capital letter
- must contain at least one digit.

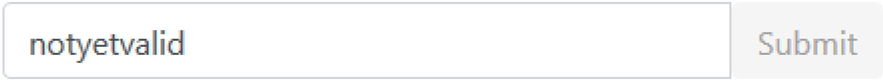
While the password is being input, i.e. when the contents of the input box are being changed, the component must call a member function called *checkPass()* which validates the password according to the above specifications and calls another function called *validatePass()*, which will be defined as its prop, with the result of the validation. In other words, when a PasswordInput component is rendered, it will be rendered with a prop called *validatePass* which will refer to a function, for example:

```
<PasswordInput validatePass={someFunctionHere} />
```

Section 2: LoginForm component

Define a React component called LoginForm which contains a Bootstrap input-group-div which contains a PasswordInput component and a button for submitting the form. The button must be disabled by default. If the password entered into the PasswordInput is valid, according to the specifications above, the button must be enabled, but if it changes back to being invalid, the button must be disabled again. You will need to use component state to achieve this, which you must manage through the function passed as the *validatePass* prop of the PasswordInput component. In other words, as the contents of the input changes, a member function of the LoginForm component must be called, which updates the

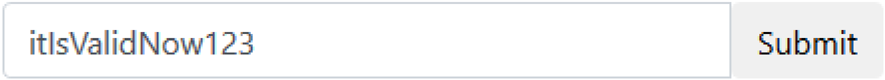
LoginForm state, which reflects in the button being enabled/disabled. For example, if an invalid password is entered:



notyetvalid

Button disabled

And if a valid password is entered:



itIsValidNow123

Button enabled

In order to clarify the required functionality for this assignment, an example file called *P6_memo.html* has been included for you to download, which demonstrates what you are required to implement using react.js. (Don't worry about the code contained inside this file, just use the file to understand the required functionality. If your code looks anything like the code inside this file, it will not be marked.)

Submit ONLY the following file(s) according to the submission instructions.

- *index.html*