4 - ReactJS

1. Learning Outcomes

On completion of this lab you will rebuild your notes application using ReactJS.

2. Organisation

Please complete the exercises and questions individually. Some revision questions have been included on this worksheet, please answer these **briefly** and **in your own words**, as these have been allocated marks on this sheet

3. Grading

This worksheet is worth up to 20% of your overall module grade.

You may work on this worksheet during labs with instructor assistance.

4. Submission

The deadline for submission is Wednesday Dec 13th 2022 @23:59 through Brightspace

- The work and submission workflow is as follows:
- Create a sub-folder for each problem below. problem-1, lecture-review.
- Put your solution for each problem in their respective folders.
- If you could create a mark down file for the lecture review questions (ie answers.md)
- When you are finished developing your worksheet solution, compress and zip all problems into one zip file. Name this **<student-id>**-lab-4.zip
- **<student-id>** is something like C12345678
- Upload to Brightspace Lab 4 - Upload

5. Resources

- https://reactjs.org/
- https://reactjs.org/tutorial/tutorial.html

6. Questions

1	Convert your notes application from **lab 1** to use a react application	50 Marks
2	Integrate some external functionality or API into your application	20 Marks
3	Extend your application with additional functions – be creative	30 Marks

Exercises:

Explain using code examples what is meant by props and state in React JS?
In functional programming, what does the term functor mean? Can you give an example in JavaScript?
We have looked at three kinds of asynchronous programming mechanisms, namely callbacks, promises and streams. Mention one advantage and one disadvantage of each type.
With the aid of a diagram and example code, describe the Cascading Style Sheets (CSS) Box Model and show how it can be used to space DOM elements
Detail how the browser loads and bootstraps a rich web application from an initial URL.