# ReactJs lab 4 questions

1. Explain using code examples what is meant by props and state in React JS?
   1. Props are data that can be passed into a component to another like a function parameter meanwhile state is to manage the data in that component only
   2. Text

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2. In functional programming, what does the term functor mean? Can you give an example in JavaScript?
   1. It is a data object that can implement map() function and it can be of any data type
   2. Text

      Description automatically generated
3. We have looked at three kinds of asynchronous programming mechanisms, namely callbacks, promises and streams. Mention one advantage and one disadvantage of each type
   1. Callbacks
      1. Advantage: works well for single request response and easier to create
      2. Disadvantage: not scalable for more complex codes
   2. Promises
      1. Advantage: it has a more organised flow of logic and is more readable
      2. Disadvantage: can get difficult to manage multiple promises in a chain and we can’t return multiple arguments
   3. Streams
      1. Advantage: can execute faster as task can run in parallel
      2. Disadvantage: can be more complicated and more difficult to create
4. 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
   1. Diagram

      Description automatically generated with medium confidence
   2. Margin occupy exterior space that is at the edge of the box model. Border is the boundary between the margin and padding. Padding is the space between the border and the HTML content. These are used to adjust the content’s width and/or height and to organise the contents in the page.
5. Detail how the browser loads and bootstraps a rich web application from an initial URL.
   1. After the HTTP request, the initial assets that includes HTML, CSS, Javascript and other files requires, including the bootstrap, are loaded into the browser which parses the files and runs the commands contained.