Activity 2-1 – Components / using Reactjs with Typescript

Variations of Stateless Functional Components: Props are a way to pass information into a React component, they can have any type including functions - sometimes referred to as callbacks. In JSX props are passed with the attribute syntax.

React renders HTML to the web page by using a function called ReactDOM.render (). The ReactDOM.render () function takes two arguments, HTML code and an HTML element. The purpose of the function is to display the specified HTML code inside the specified HTML element.

1. Try the following code:

```
const languages = [
  'JavaScript',
  'Python',
  'Java',
  'Elm',
  'TypeScript',
  'C#',
  'F#'
]

// one liner
const Language = ({language}) => <li>{language}</li>

Language.propTypes = {
  message: React.PropTypes.string.isRequired
}

/**
 * If there are more than one line.
 * Please notice that curly brackets are optional here,
 * however I uses them for readability
 */
const LanguagesList = ({languages}) => (
  <ul>
    {languages.map(language => <Language language={language} />)}
  </ul>
)

LanguagesList.PropTypes = {
  languages: React.PropTypes.array.isRequired
}

/**
 * This syntax is used if there are more work is besided just JSX presentation
```

```
* For instance some data manipulations needs to be done.
* Please notice that curly brackets after return are required,
* Otherwise return will return nothing (undefined)
*/
const LanguageSection = ({header, languages}) => {
  // do some work
  const formattedLanguages = languages.map(language => language.toUpperCase())
  return (
    <fieldset>
      <legend>{header}</legend>
      <LanguagesList languages={formattedLanguages} />
    </fieldset>
  )
}

LanguageSection.PropTypes = {
  header: React.PropTypes.string.isRequired,
  languages: React.PropTypes.array.isRequired
}

ReactDOM.render(
  <LanguageSection
    header="Languages"
    languages={languages} />,
  document.getElementById('app')
)

//Free React JS Book (goalkicker.com)
```

Output:

To run use:
https://codepen.io/vlad-bezden/pen/qrVjmW

How to use:
https://www.bootstrapdash.com/how-to-use-codepen/
https://codepen.io/pen/