

# React Skills Assignment

## Introduction

The purpose of this exercise is to get a better understanding of your skills and way of thinking. Please publish any materials on GitHub and send us the link to review. Please don't email us any files.

#### Exercise

Create a UI component that renders hierarchical data following the UI Guideline section below, with or without the joining lines and icon, and a web application to demonstrate the component, preferably using create-react-app, preferably typescript and the test data provided.

The requirements are as follows:

- People with a gender of "female" should have background-color lightpink
- People with gender of "male" should have background-color lightblue.
- Each box should contain the person's name
- The component should be able to consume any family tree, not just the one provided.

Bonus points for recursion, type-safety, tsconfig strict mode and 100% immutability.

Assumptions you can make:

- All people have TWO and ONLY TWO parents.
- Parents are defined as two people who have the same children not necessarily in the same order.
- Top level parents will be parents who BOTH don't have parents.

As a guide, it should take from 30min - 2 hrs to complete.

Please commit your solution to GitHub and submit as a link when complete.

If you have any questions about the assignment, feel free to reach out to us.

#### Good luck!

## **UI** Guideline



## **Test Data**

```
const familyTree = [
      {
             id: 2351232112252,
             name: "Sally",
             children: [5555, 6666, 7777, 8458189966444,
897543276547654765443576],
             gender: "female",
             parents: [],
      },
             id: 1231239887112,
             name: "Billy",
             children: [8458189966444, 5555, 6666, 7777,
897543276547654765443576],
             gender: "male",
             parents: [],
      },
             id: 7777,
             name: "Suzie",
             gender: "female",
             children: [317849882, 8569047194214199353],
             parents: [2351232112252, 1231239887112],
      { id: 23123122, name: "Sam", gender: "male", children: [317849882,
8569047194214199353], parents: [] },
      { id: 317849882, name: "Josh", gender: "male", children: [43924235082592],
parents: [7777, 23123122] },
      { id: 8593288989, name: "Sarah", gender: "female", children:
[43924235082592], parents: [] },
      { id: 43924235082592, name: "Jim", gender: "male", children: [9305009999],
parents: [317849882, 8593288989] },
      { id: 83473298328562398696, name: "Clara", gender: "female", children:
[9305009999], parents: [] },
```

```
{ id: 9305009999, name: "Joe", children: [], gender: "male", parents:
[43924235082592, 83473298328562398696] },
             id: 8569047194214199353,
             name: "Charlie",
             gender: "male",
             children: [565893648394894339808],
             parents: [23123122, 7777],
       { id: 4382743284732483290, name: "Jessie", gender: "female", children:
[565893648394894339808], parents: [] },
      {
             id: 565893648394894339808,
             name: "Bob",
             gender: "male",
             children: [],
             parents: [8569047194214199353, 4382743284732483290],
       { id: 8458189966444, name: "Ricky", gender: "male", children: [], parents:
[2351232112252, 1231239887112] },
      {
             id: 897543276547654765443576,
             name: "Julian",
             gender: "male",
             children: [],
             parents: [1231239887112, 2351232112252],
      },
];
```