

Week 5 & 6: Web development - Frontend

We will learn how to more easily create an interface for our application. By now you will have experienced that a CLI has its limitations and that managing the state by manipulating the DOM can be very time consuming and challenging. To help us with those problems we will leverage the power of a React. We will learn to build user interfaces with React.

Objectives

- Understanding of the React library
 - State management
 - Render loop
- Usage of Typescript in advanced context
 - Dealing with externally defined types

Prework

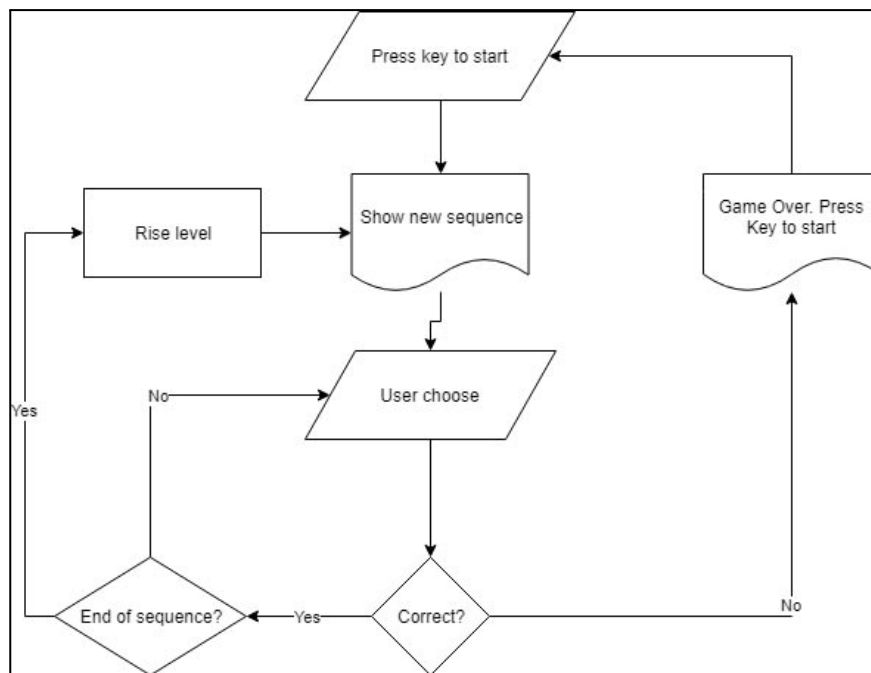
None

Materials

- [Getting Started – React](#)
- [Adding TypeScript | Create React App](#)

Exercises

- [Tutorial: Intro to React](#)
- [Static Type Checking – React](#)



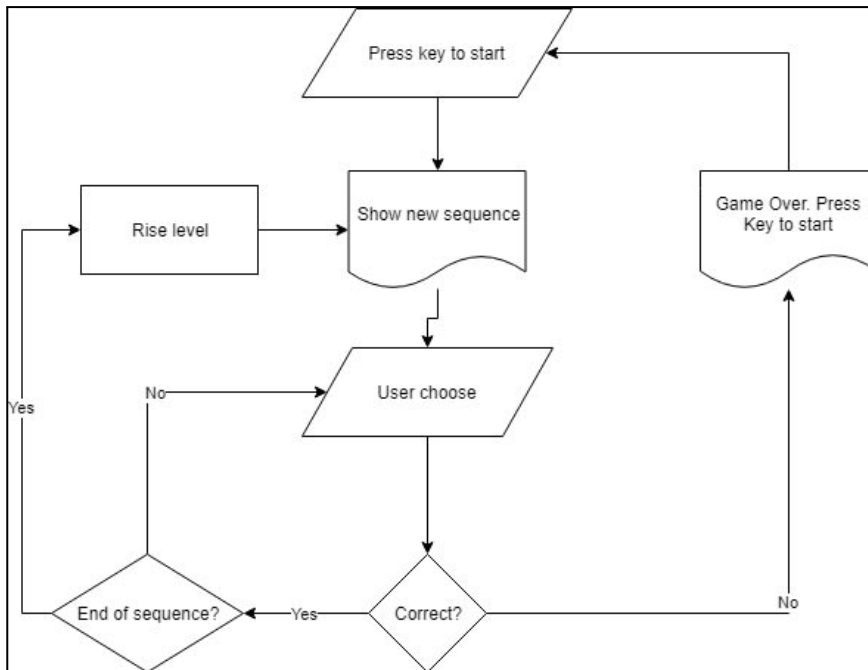
Assessments

Assessment 1: Simon Says

Develop your own version of the electronic game [Simon Says](#). The game has four colored buttons. A round in the game consists of the device lighting up one or more buttons in a random order, after which the PLAYER must reproduce that order by pressing the buttons. As the game progresses, the number of buttons to be pressed increases.

The game loop is as follow:

UI Interface:



The colored squares should be clickable.