

# **STEM Sims Code Exercise**

### **Overview**

Use the react boilerplate provided to create a drawing web app (think Microsoft paint) in React. No backend required.

## **Context**

Within a virtual lab lesson, students answer different kind of problems. For this exercise, pretend you have been tasked with allowing them to draw out something for the lesson. At the end of the lesson the drawing will need to be submitted to the backend with the other data to be saved in MySQL.

# Setup

- Download boilerplate zip file
- Run "npm start" within root of the folder

See instructions listed below.

### Instructions:

- Choose any library or method you prefer to code the drawing part of the assignment. There are many React libraries that can help you do this.
- Make sure the following functionality is possible within the drawing app:
  - Drawing lines free hand (with mouse).
  - It can make circles and rectangles. Arrow shape would be nice as well but not required.
  - Color can be changed for everything listed above.
- The tricky part: Add functionality to save the drawing to your react state or in another manner. Up to you on how you do this!
  - There are a lot of different ways you can approach this, but take into account the context of the lesson submission.
  - No API request, backend, or anything required outside simply storing the info represented within the drawing. You are **not** implementing the lesson context, just the saving the drawing.
  - Add some notes in either the code or in README of how the data of the drawing would be sent to the backend and saved.
- Design the UI
  - The drawing segment (if using library, you can play with its CSS),
  - Some sort of toolbar, control panel, buttons, or other UI component(s) that meets the functionality listed.
  - The entire UI of the app doesn't need to be created, so don't worry about having a header or a landing page or anything like that.
  - We are going to look at your CSS and UX, so make sure you make everything as user friendly and pretty as possible :)

**Deliverables:** A single zip file of the boilerplate with your changes.