## Objective

Develop a simple web application with multiple screens that allows users to load data from a 1536-well microtiter plate and visualize the data as a heatmap.

## Task Overview

Create a React.js application that consists of two main functionalities:

1. Data Loading Screen
2. Data Visualization Screen

## Data Loading Screen

* Create a user interface that allows users to upload a CSV file.
* Each row in the CSV file corresponds to a well in the 1536-well microtiter plate.
* The CSV will have multiple columns with metrics and metadata.
* Parse the CSV file and store the data in a suitable data structure for further processing.

## Data Visualization Screen

* Display a heatmap that represents the 1536-well microtiter plate.
* Users should be able to select a metric from the uploaded data to visualize on the heatmap.
* On hovering over a well in the heatmap, display a tooltip showing all metrics and metadata for that well.
* Ensure that the heatmap is color-coded based on the selected metric's value range.

## Requirements and Guidelines

1. Project Setup and Structure

* Follow best-practices on setting up a React project.
* Organize your code into components, utilities, and services as needed.
* Use modern React features where appropriate.

1. Data Loading

* Utilize an appropriate package or HTML element to handle file uploads.
* Ensure error handling for incorrect file types or corrupt data.
* Parse the CSV file and validate its format to match the expected structure.

1. Heatmap Visualization

* Decide on a suitable library or technique to create the heatmap.
* Implement a dropdown or radio button group to allow users to select which metric to visualize.
* Design the heatmap to accurately reflect the layout of a 1536-well microtiter plate.

1. Interactivity

* Implement interactivity such that users can hover over individual wells to see detailed information.
* The tooltip should be responsive and display all relevant data without obstructing the view.

1. Documentation

* Include a README file with instructions on how to run the application.
* Document your code appropriately.

## Deliverables

* A GitHub repository link to your project.
* A working application that can be run locally as Docker container.
* Documentation in the form of a README.md file.