Test.ai Frontend Engineer Challenge

Background

At test.ai, we have developed AI bots to execute tests on mobile apps. The bot executes a set of test steps (ex: step #0 = "Open messenger app" step #1 = "click new message button" etc.) as part of a test. For each test step, we collect a screenshot of the current image and performance data (execution time, mem, cpu, etc). Each test is run multiple times to build confidence intervals in the performance data.

Assignment

We would like you to build an HTML page, which dynamically pulls test case related data from the supplied data file and displays each test case as an ordered set of screenshots representing each test step and its respective performance data. Additionally, we would like users to be able to view each performance data point in a visually intuitive way. You should use tables, charts, or whatever you feel best communicates the data.

Objective

The goal of this is to evaluate your coding ability, and your sense of design for displaying data. There are no right or wrong answers to this assignment, but successful candidates will demonstrate strong proficiency with JavaScript and may use their favorite JS framework to help speed up development. Please do not spend more than a couple hours on this.

After completing the webpage please send it to us.

Technical Details

- Data will be in a JSON format. For ease of this assignment, we will provide a hard coded json that you can just dump into your HTML file (no need for you to build a server and handle networking).
- We will provide a folder with a sample JSON to use, and screenshots to put into the web page.
- JSON format will be in the following form (# is comment about that value):

{

       "**test_run_id**": < STRING >, # Unique ID for the given run of this app

       "**app_name**": <STRING >, # The name of the app, ex: Facebook Messenger

       "**time_stamp**": <STRING>, # Time test was executed "2018-01-20T12:00:00Z"

       "**test_cases**": [# List of test cases for this test run

           {

               "**test_name**": <STRING>, # Name of test case ex: "send message test",

               "**status**": <boolean>, # True = test case passed, False = test case failed

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"test_steps": [ # list of steps executed for this test case
    {
        "step_name": <STRING>, # ex: click new message button
        "screenshot": <STRING>, # filename for the screenshot
        "launch_times": [ # time it took to launch the app
            <INT>, # timing for first run
            <INT>, # timing for second run

            ...
        ],
        "memory": [ # RAM usage during this step
            <INT>,

            ...
        ],
        "cpu": [ # CPU usage during this step
            <FLOAT>,

            …
        ]
    },
    …
]

            ]
        ]
}
```