Software Automation Engineer Assessment
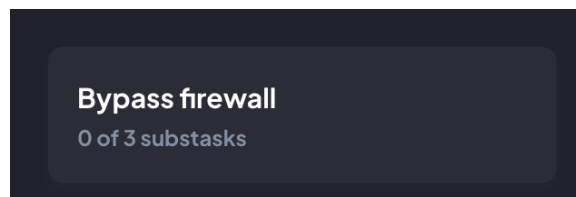
Instructions:

- This coding quiz consists of a Playwright automation script task.
- Read the task description carefully before starting.
- You have 180 minutes to complete the task.
- Upon completion, generate a test report in HTML format.
- Submit a zip of your project containing your script and test report.
- Scoring details are provided for each test case.
- Please use Javascript/Typescript
- Evaluation criteria outline the aspects that will be assessed during the quiz.
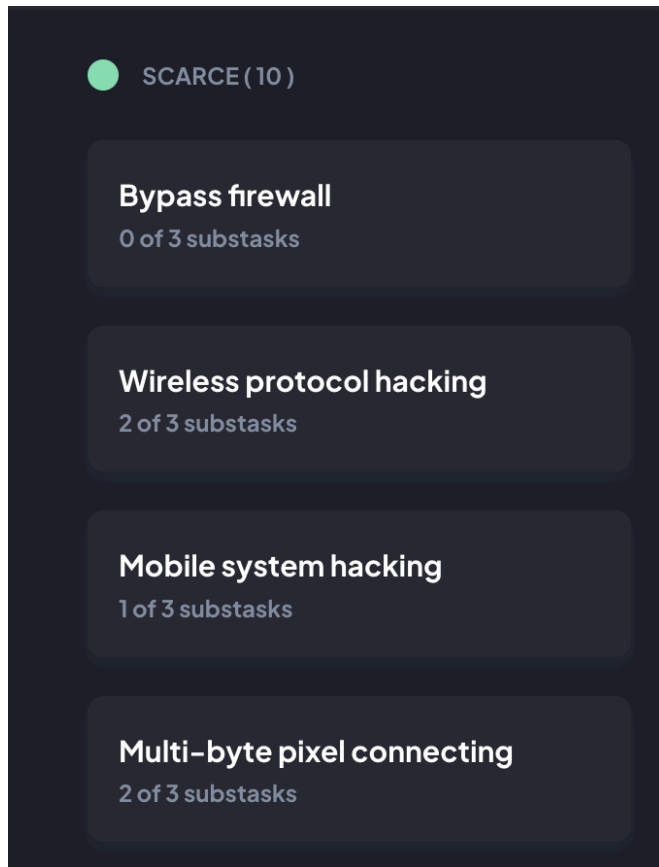- Good luck!

Task Description:

- You are tasked with automating the test cases of a Kanban web application hosted at Kanban.
- **Note: The data in the application changes every time you refresh the page. That is on purpose. Your goal is to write the tests in a robust way that will work consistently even when the data changes.**
- Make sure to write both actions (click, fill, etc..) and assertions
- When you are done with your tests run `npx playwright test --repeat-each 5` This will run all of the tests and repeat each test 5 times. Your goal is for all runs to pass

Terminology
- **Kanban Card**

Bypass firewall
0 of 3 substasks

- **Kanban Column**

SCARCE (10)

Bypass firewall
0 of 3 substasks

Wireless protocol hacking
2 of 3 substasks

Mobile system hacking
1 of 3 substasks

Multi-byte pixel connecting
2 of 3 substasks

The automation script should cover test cases as outlined below. 2nd test case is optional

Test Cases:

1. Edit a Kanban Card

- Description: Edit a Kanban card to mark a subtask as complete and move the card to the first column.
- Steps
  1. Navigate to the Kanban app
  2. Choose a card with subtasks that are not completed and that is not in the first column

3. Complete one subtask
4. Move task to the first column
5. Verify that the subtask is striked through
6. Close the card edit page
7. Verify that the number of completed subtasks is correct
8. Verify that the card moved to the correct column

2. [Optional] Delete a Kanban card:

- Description: Delete a kanban card
- Steps:
  1. Open the Kanban app
  2. Delete a Kanban card
  3. Verify that the card is no longer present
  4. Verify that the number of cards in the relevant column is updated

Evaluation Criteria:

1. Accuracy (40 points):

   a. The script accurately automates the needed functionality for each test case.
   b. Expected results are verified correctly for positive and negative scenarios.

2. Robustness (30 points):

   a. Tests run and pass with changing data.
   b. When a bug is introduced, the test fails.
   c. The script handles edge cases and unexpected behavior effectively.
   d. It accounts for variations in page load times and element visibility.
   e. Error handling mechanisms are implemented to handle script failures gracefully.

3. Readability (20 points):

   a. The script is well-structured and easy to understand.
   b. Meaningful variable names and comments are used to improve code clarity.
   c. Code follows best practices and conventions for Playwright automation.

4. Report Generation (10 points):

   a. The generated HTML test report accurately reflects the test results.
   b. Test case scores are included in the report along with relevant details.
   c. The report provides clear insights into the success or failure of each test case.

Submission Instructions:

● Provide a zip file of the repository, not including node modules