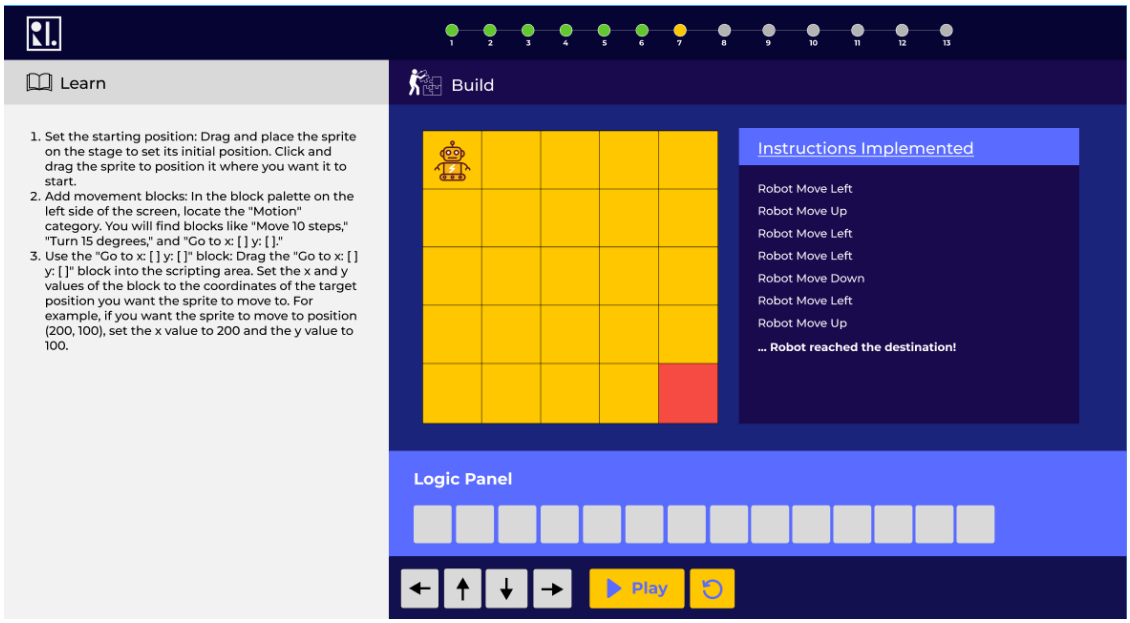
RANCHO LABS

Rancho Labs, an innovative ed-tech start-up backed by IHFC and affiliated with the prestigious Indian Institute of Technology Delhi (IIT Delhi), is seeking a talented and passionate Full Stack Developer to join our dynamic team.

At Rancho Labs, we are dedicated to transforming the K-12 education segment by providing cutting-edge coding, robotics, and AI education to students. As a Full Stack Developer, you will play a crucial role in developing our revolutionary platform that empowers students to learn robotics in an interactive and engaging manner.



You have to design the user interface for the above shown robotics education platform. Implement responsive design principles to ensure the application is compatible with different devices and screen sizes.

Key Elements

Grid*: 5x5 grid on the screen with a robot on the top left and a red square (end square) at the bottom right.*
Logic Panel*: Consists of squares where the arrow buttons below have to be dragged and dropped.*

Task

The robot inside the grid has to move step-by-step according to the directions provided to it through the logic panel. When clicked on the play button, the robot executes the directions in sequential order according to the directions provided in the logic panel. The robot should return back to its initial position when the reset button is clicked.

Additional Considerations

- Use MERN stack to develop the application
- Write clean, maintainable, and well-documented code.
- Apply industry-standard best practices for software development.
- Use version control (e.g., Git) to manage your codebase.

Deliverables

1. A functional web application prototype with a user-friendly interface hosted on platforms like Netlify, Github, Heroku or similar platforms
2. Source code of the front-end and back-end implementations.
3. Documentation describing the application's architecture, setup instructions, and API documentation.

Please fill the following Google form https://forms.gle/GLswqofkDghuNyH39 to submit the assignment.

Assignment Deadline: June 13, 2023 (11:59 PM)