ENVIROEMENTAL MONITORING-DEVELOPMENT PART 2

Design a Enviromental Monitoring system based on mobile application using MIT Inventor , it following steps

1. Designing the App Interface:

• Use MIT App Inventor's drag- and-drop interface to create screens for temperature, humidity, and wind monitoring.

• Add labels, text boxes, buttons, and any other necessary component.

2. Sensor Integration:

Connect appropriate sensors to your microcontroller or development board (e.g., Arduino, Raspberry Pi).

• Write code to read data from the sensors and transmit it to MIT App Inventor.

3. Bluetooth/Wi-Fi Communication:

• Establish a communication protocol (Bluetooth or Wi-Fi) between the microcontroller and your Android device.

• Ensure that the microcontroller can send data in a format that MIT App Inventor can understand (e.g., via Bluetooth)

4. Data Parsing and Display:

• In MIT App Inventor, create blocks to parse the incoming data and display it on the respective screens for temperature, humidity, and wind.
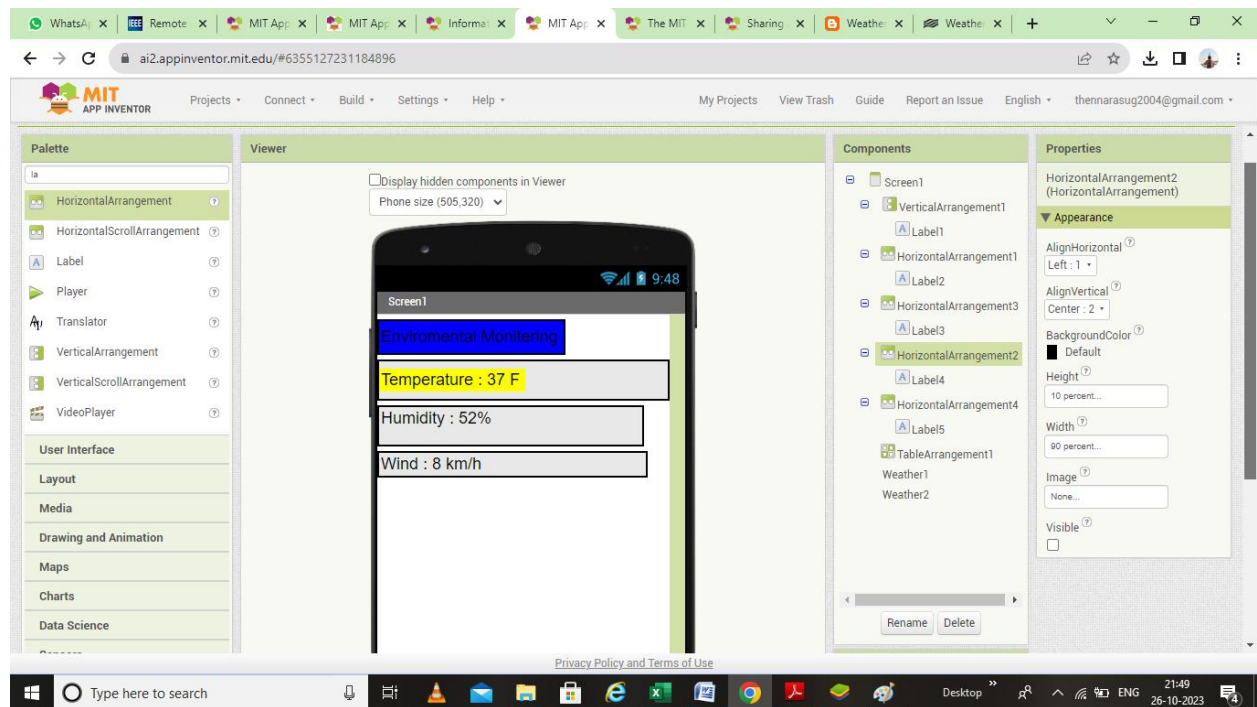
• In MIT App Inventor, create blocks to parse the incoming data and display it on the respective screens for temperature, humidity, and wind.

5. Web Development for Data Visualization:

• You'll need a server to host a webpage for data visualization. You can use platforms like AWS, Google Cloud, or even a local server.

Create a webpage with HTML, CSS, and JavaScript to display the environmental data. Use libraries

6. Data Transmission to Web Server:

• Modify your microcontroller code to also send data to the web server in a suitable format (e.g., using HTTP POST requests).

7. Web Page Interaction with Data:

Use JavaScript to fetch data from your server and update the visualizations in real-time.

8. Security and Authentication (Optional):

• Implement security measures like HTTPS, API keys, or other authentication methods to protect data transmission.

CODING FOR MIT INVENTOR

9. User Interface Refinement:

• Enhance the app's user interface for a polished look and feel.

10. Testing and Debugging:

• Thoroughly test the entire system to ensure that data is transmitted accurately and visualized correctly both in the app and on the web page.

11. User Documentation (Optional):

Create a simple guide on how to use the app.

12. Deployment:

• Once you're satisfied with the app, you can package it for Android devices using MIT App Inventor's export options.