**Phase-5**

**Smart public restroom**

**Planning**

1. **Simulate the Hardware:**

Build and connect the components in the Wokwi circuit simulator. You can use virtual components and wires to create a digital representation of your hardware design.

1. **Programming the Microcontroller:**

Write the code for the microcontroller to control the ventilation system. The code should include logic for monitoring air quality and adjusting the ventilation system based on sensor data. In Wokwi, you can use the Arduino IDE for coding and upload the program to your virtual microcontroller.

1. **Integration and Testing:**

Integrate your sensor data into the microcontroller program and set up the control logic to adjust ventilation as needed. Test your circuit and program to ensure they work together as expected.

1. **Visualization:**

Wokwi allows you to add visual elements to your simulation, so you can create visualizations of air quality parameters and how the ventilation system responds.

1. **Iterate and Refine:**

Simulate and test your system, and make any necessary adjustments to the hardware or code to achieve the desired ventilation control functionality.

1. **Record and Analyze Data:**

Collect and analyze data from the simulation to ensure that your ventilation control system is effectively maintaining air quality.