

Project Development Phase

Sprint-4

Date	19 November 2022
Team ID	PNT2022TMID35841
Project Name	Gas Leakage Monitoring and Alerting System

Sprint Target:

Sprint	Functional Requirement (Epic)	User Story Number	User Story / Task	Story Points	Priority	Team Members
Sprint-4	Storage	USN-7	As a user, I can access data from cloud using interactive UI.	10	High	SUDARSHAN A R, B ADITYA, C PRADUMNA
		USN-8	As a user, I can experience enhanced features and highly sensitive gas leakage detection	10	Medium	SUDARSHAN A R, B ADITYA, C PRADUMNA

Introduction:

In this Sprint-4, we have added functionalities of the Open Valve and Close Valve buttons. With this feature we improved the UI of the app.

The screenshot displays the MIT App Inventor web interface for a project named "Gas_leakage_2". The interface is divided into several sections:

- Top Bar:** Contains navigation links (YouTube, Home, Gmail, etc.), the MIT App Inventor logo, and project management options (Projects, Connect, Build, Settings, Help).
- Project Bar:** Shows the current project name "Gas_leakage_2" and options to manage screens (Screen2, Add Screen, Remove Screen) and publish to the gallery.
- Left Sidebar:**
 - Blocks:** A palette of programming blocks categorized by function (Control, Logic, Math, Text, Lists, Dictionaries, Colors, Variables, Procedures).
 - Viewer:** A pane showing the visual components of the app, including a "VerticalArrangement1" container with various text boxes and labels.
- Main Workspace:** The area for visual programming using blocks.
 - when Button1.Click:** A block that triggers a sequence of actions when a button is clicked:
 - do:
 - set Clock1.TimerInterval to decimal 4000
 - set TextBox2.Text to join "Valve Status:" and "Open"
 - call Notifier1.ShowDialog with message "Valve Opened", title "Notice", and buttonText "Ok"
 - set global v to false
 - when Clock2.Timer:** A block that triggers actions at a specific time interval:
 - do:
 - if get global danger == decimal 1:
 - then:
 - set TextBox1.Text to join "Gas Level:" and get global val ppm
 - set global val to round (get global val / decimal 1.7)
 - set Label1.Visible to false
 - else if:

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📄 Stealing a Soviet MiG


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 MIT APP INVENTOR

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Gas_leakage_2

Screen2 ▾ Add Screen ... Remove Screen Publish to Gallery

Designer Blocks

Blocks

Built-in

- Control
- Logic
- Math
- Text
- Lists
- Dictionaries
- Colors
- Variables
- Procedures

Screen2

- VerticalArrangement1
 - TextBox4
 - Label4
 - TextBox3
 - Label3
 - TextBox1

Viewer

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✖ 0

Show Warnings

then

set TextBox1 . Text to join " Gas Level: "get global val " ppm"

set global val to round get global val / decimal 1.7

set Label1 . Visible to false

else

set Label2 . Visible to false

when Button2 . Click

do


set global v to true

set Clock1 . TimerInterval to decimal 86400000

set TextBox2 . Text to join " Valve Status: " " Closed "

call Notifier1 . ShowMessageDialog


- message " Valve Closed "
- title " Notice "
- buttonText " Ok "



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LTE2 78%

Gas Leakage Monitoring and Alerting System

DASHBOARD

Gas Level: 3 ppm

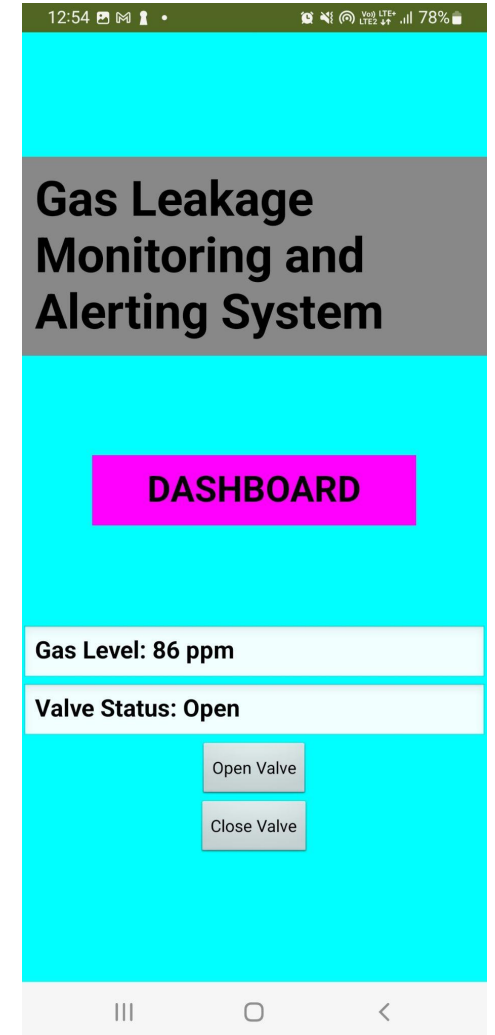
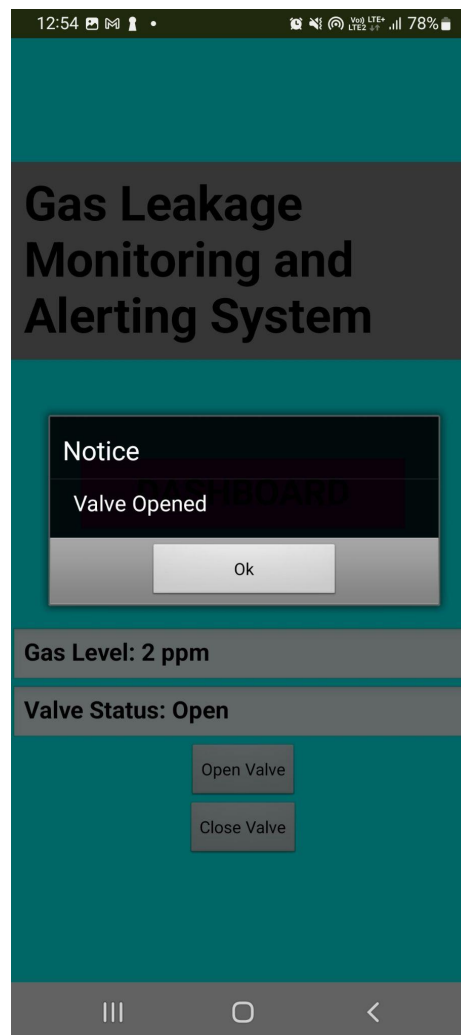
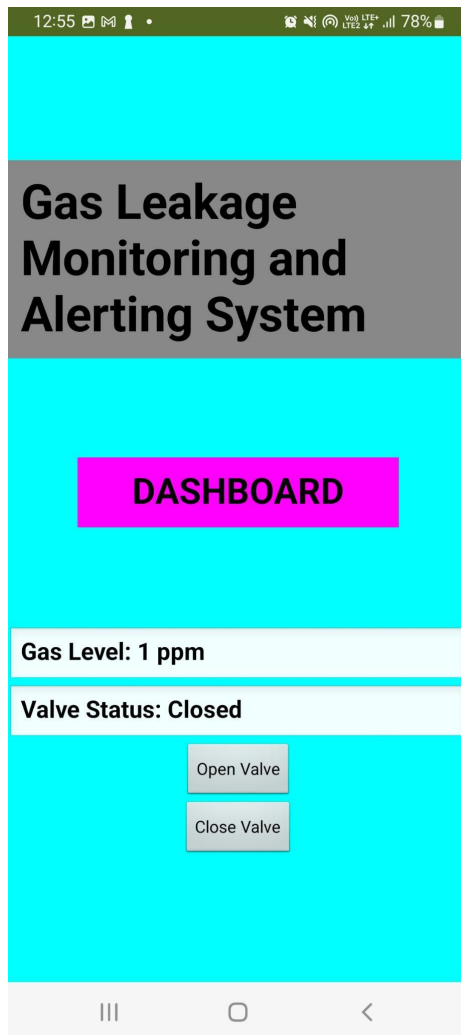
Valve Status: Closed

Open Valve

Close Valve

Open Valve:

If the consumer wants to manually open the valve, they can do so using the Open Valve button. In this figures below, initially the valve is closed following which it is manually opened using the Open Valve.



Close Valve:

If the consumer wants to manually close the valve, they can do so using the Close Valve button. In this figures below, initially the valve is open following which it is manually closed using the Close Valve. The gas concentration reduces to a minimum value of 3 ppm.

