

Industry-Specific Intelligent Fire Management System

TMID:- PNT2022TMID22485

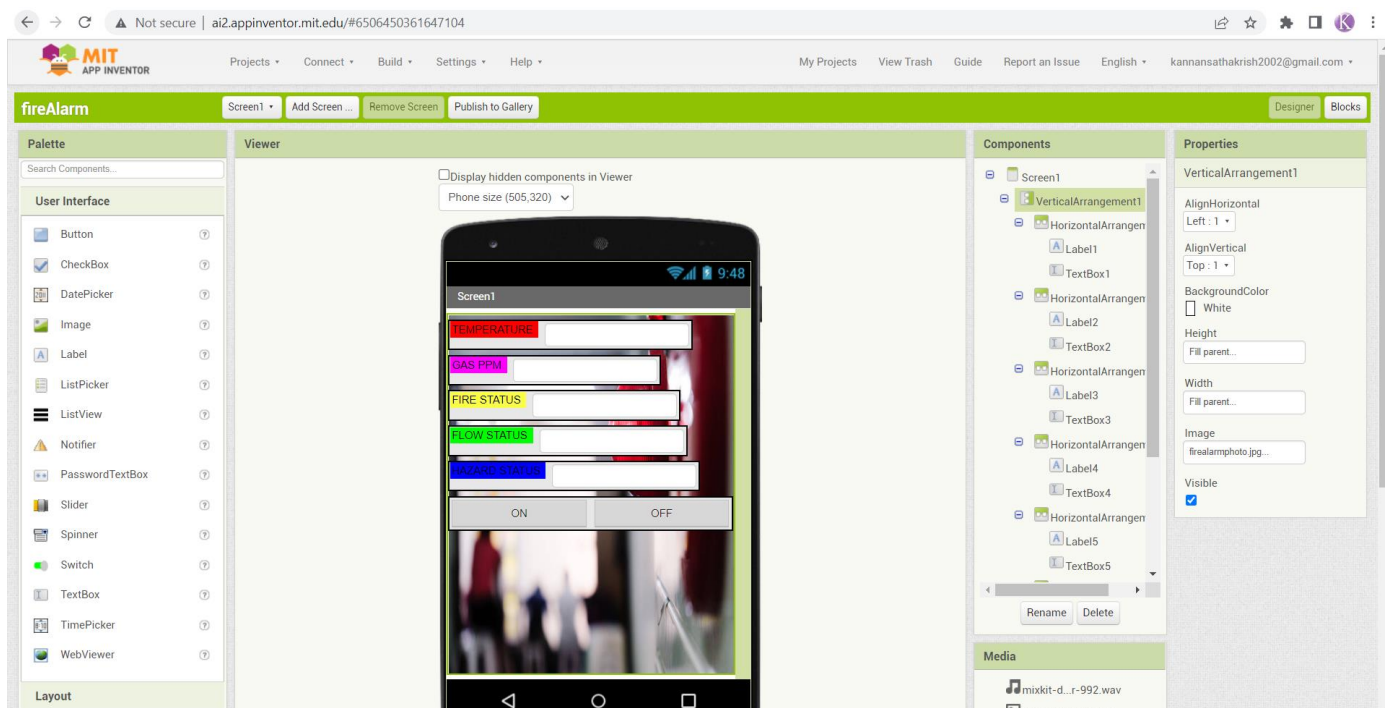
SPRINT-4

MIT APP INVENTOR

1. Monitoring the environment using APP

An app is created using mit app inventor

APP(Front-end)



APP(Back-end)

JSON data is written as name/value pairs in node-red is used in mit app inventor

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

- Top Bar:** Includes navigation icons, a "Not secure" warning, the URL "ai2.appinventor.mit.edu/#6506450361647104", and user information "kannansathakrish2002@gmail.com".
- Project Bar:** Shows the project name "fireAlarm" and buttons for "Screen1", "Add Screen", "Remove Screen", and "Publish to Gallery".
- Left Panel (Blocks):** Contains a "Built-in" section with categories like Control, Logic, Math, Text, Lists, Dictionaries, Colors, Variables, and Procedures. It also shows a "Screen1" section with components like VerticalArrangement1, HorizontalArrangement1, Label1, TextBox1, HorizontalArrangement2, and Label2. A "Media" section at the bottom lists "mixkit-d...r-992.wav" and "firealarmphoto.jpg".
- Right Panel (Viewer):** Displays the visual representation of the app screen, showing a form with five text boxes and two buttons. A "Show Warnings" icon is visible at the bottom left of the viewer.
- Center Panel (Code):** Shows the block-based code for the app. The code is organized into two main sections:
 - Web1 GotText:** A "do" block containing a "set TextBox1" block, a "look up in pairs" block (key: "temperature", value: "temperature"), a "call Web1" block (method: "JsonTextDecode", url: "https://node-red-hoix-2022-10-10.eu-de.mybluemix.net"), a "joinText" block, and a "get responseContent" block. This is followed by an "if" block checking if "TextBox1" text is "50" and "40". If true, it sets "Button1" background color to green, "Button2" background color to white, and "Label6" text to "SAFE". If false, it calls "Sound1" to play, sets "Button2" background color to red, "Button1" background color to white, and "Label6" text to "DANGER".
 - Clock1 Timer:** A "do" block containing a "set Web1" block (url: "https://node-red-hoix-2022-10-10.eu-de.mybluemix.net"), a "call Web1" block (method: "Get"), and a "get responseContent" block. This is followed by a series of "set" blocks for "TextBox2" through "TextBox5" and "Label6" text, each using a "look up in pairs" block with keys like "gas_ppm", "firestatus", "hazardstatus", and "flamestatus".

APP working status in mobile

If temperature greater than or equal to 50

-Alert is shown(ON)

If temperature less than 50 (degree)

-Alert is not shown(OFF)

