FLAREPATH – ADVANCED VEHICLE FIRE SAFETY AND MONITORING WITH RAPID EMERGENCY DISPATCH SOLUTIONS

R24-058

Status Document - 2

Peramunage A.N – IT21080562

B.Sc. (Hons) Degree in Information Technology specializing in Information Technology

Department of Information Technology

Sri Lanka Institute of Information Technology

Sri Lanka

September 2024

Group Details

Supervisor – Mr.Nelum Chathuranga Amarasena

Co-supervisor – Mr. Deemantha Nayanajith Siriwardana

External Supervisor – Mr. Onray Sahinda

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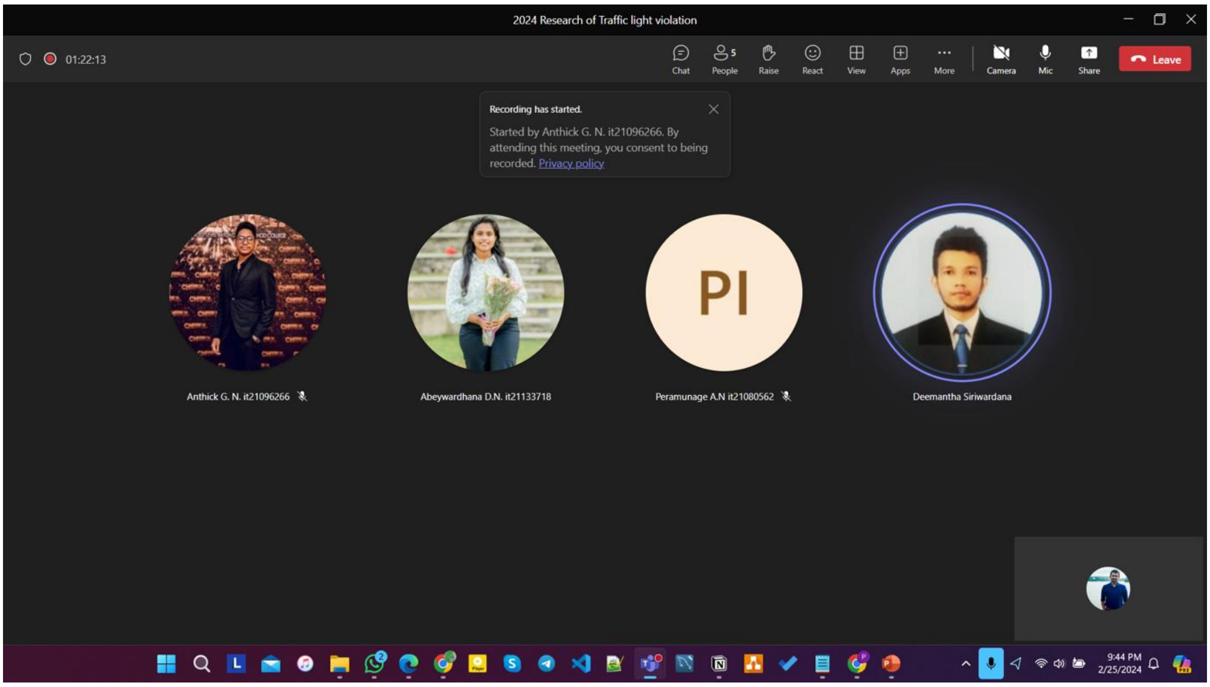
Table of Contents

Meetings & Calls

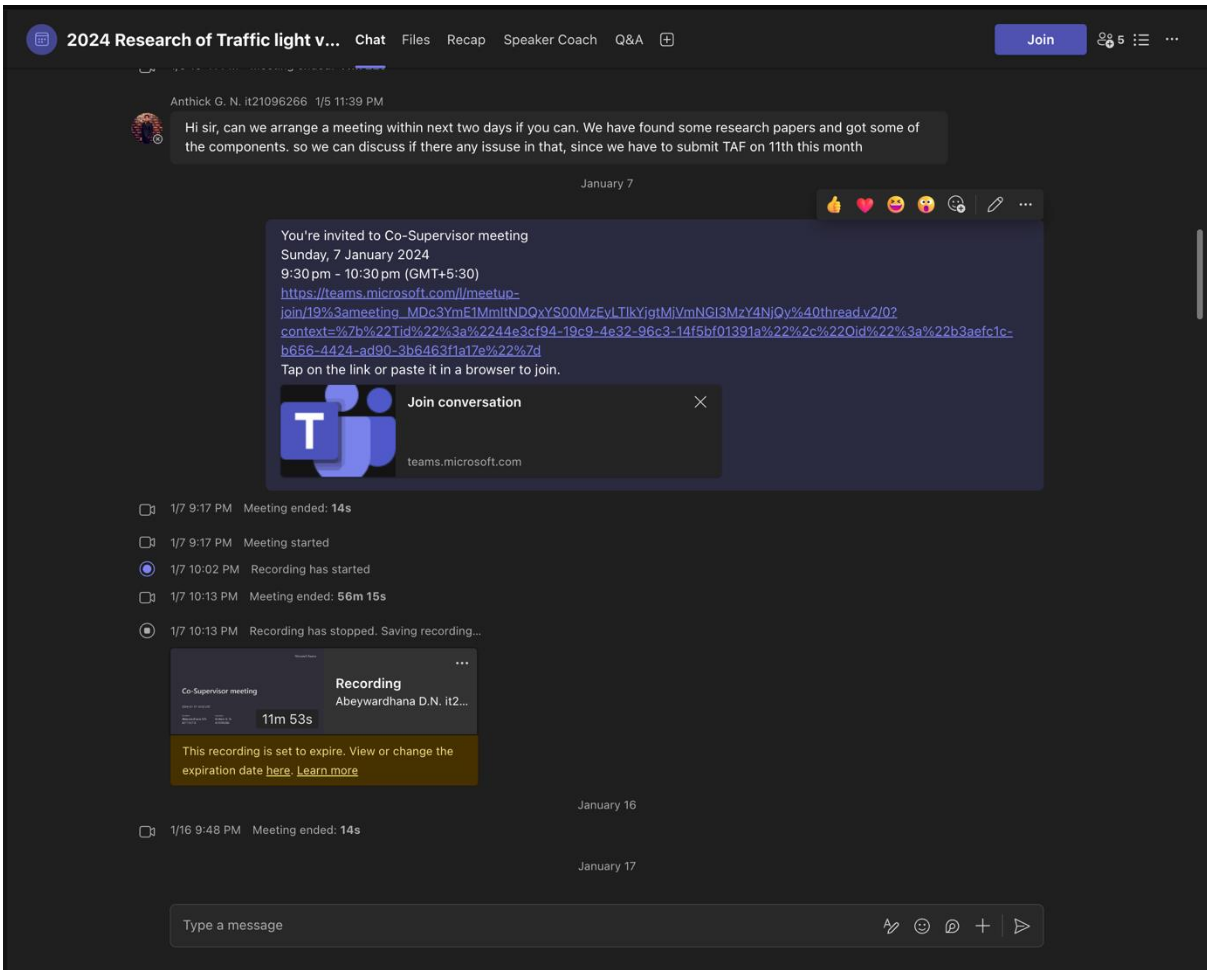
Meetings with supervisor and co-supervisor

Meeting with both supervisor and co-supervisor about the project progress and improvements that we need to do to our project.



Recording has started.

Started by Anthick G. N. it21096266. By attending this meeting, you consent to being recorded. Privacy policy



Anthick G. N. it21096266 1/5 11:39 PM

Hi sir, can we arrange a meeting within next two days if you can. We have found some research papers and got some of the components. so we can discuss if there any issue in that, since we have to submit TAF on 11th this month

January 7

You're invited to Co-Supervisor meeting
Sunday, 7 January 2024
9:30 pm - 10:30 pm (GMT+5:30)
https://teams.microsoft.com/l/meetup-join/19%3ameeting_MDc3YmE1MmItNDQxYS00MzEyLTlkYjgtMjVmNGI3MzY4NjQy%40thread.v2/0?context=%7b%22Tid%22%3a%2244e3cf94-19c9-4e32-96c3-14f5bf01391a%22%2c%22Oid%22%3a%22b3aefc1c-b656-4424-ad90-3b6463f1a17e%22%7d
Tap on the link or paste it in a browser to join.

Join conversation
teams.microsoft.com

1/7 9:17 PM Meeting ended: **14s**

1/7 9:17 PM Meeting started

1/7 10:02 PM Recording has started

1/7 10:13 PM Meeting ended: **56m 15s**

1/7 10:13 PM Recording has stopped. Saving recording...

Recording
Abeywardhana D.N. it2...
11m 53s

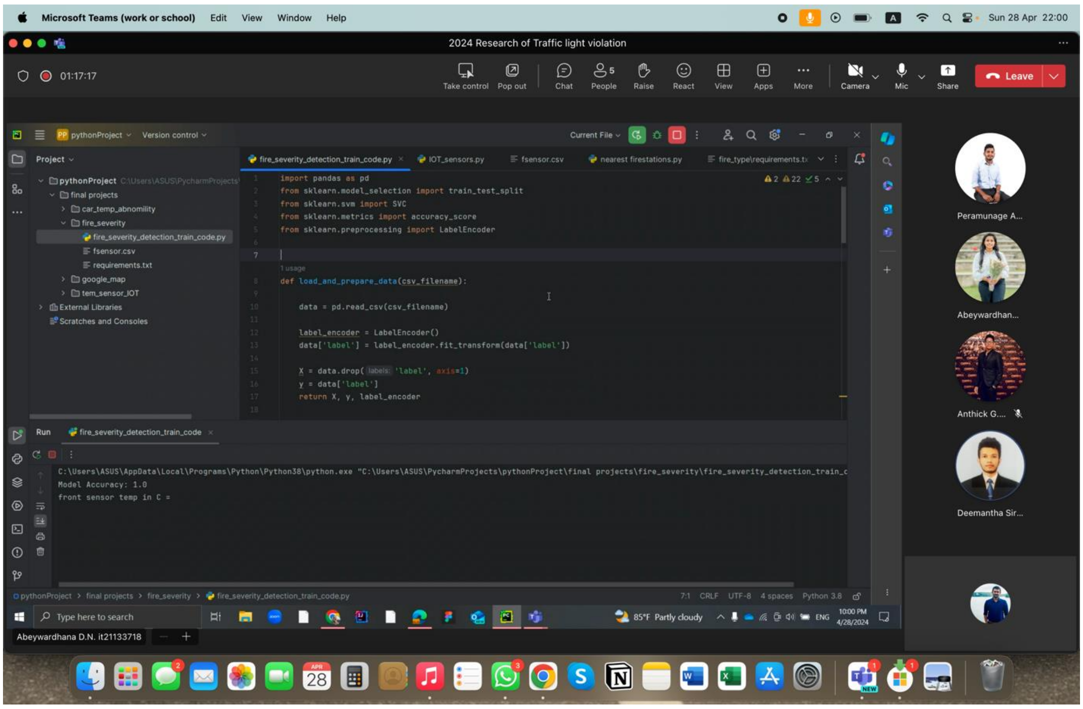
This recording is set to expire. View or change the expiration date here. Learn more

January 16

1/16 9:48 PM Meeting ended: **14s**

January 17

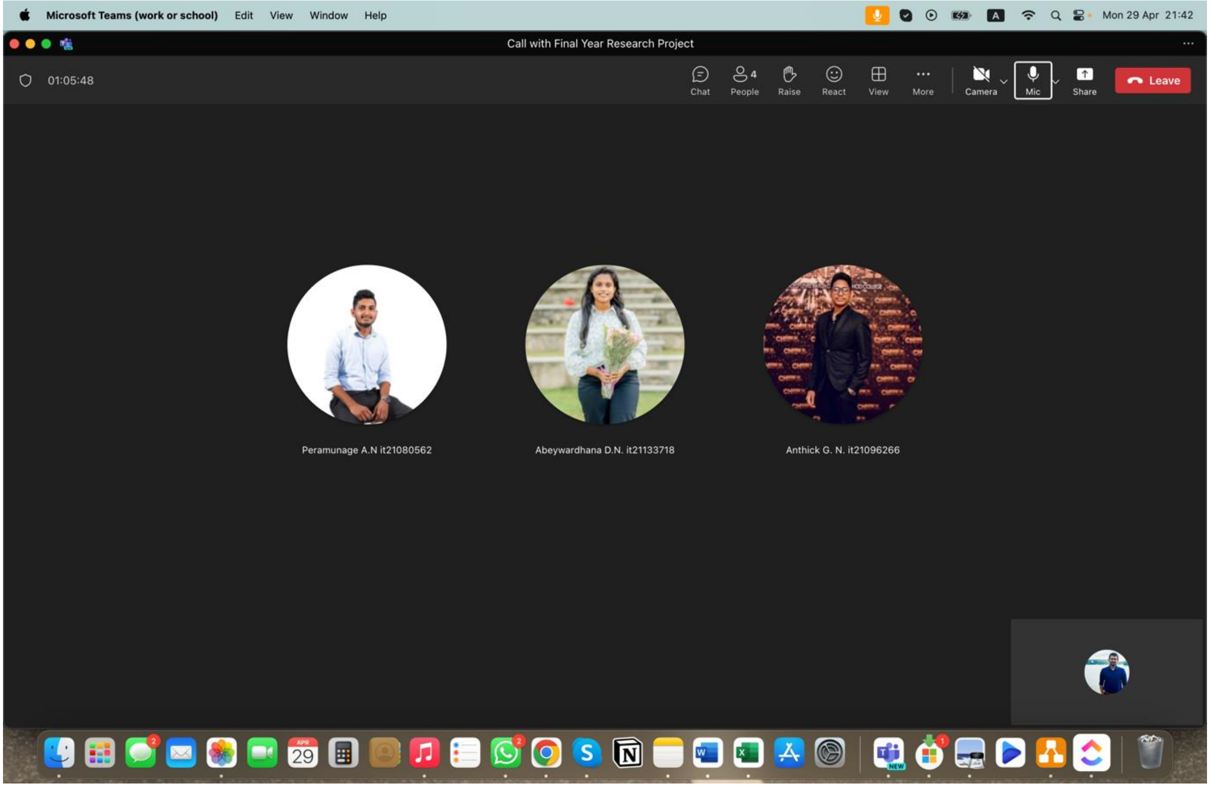
Code review with co-supervisor



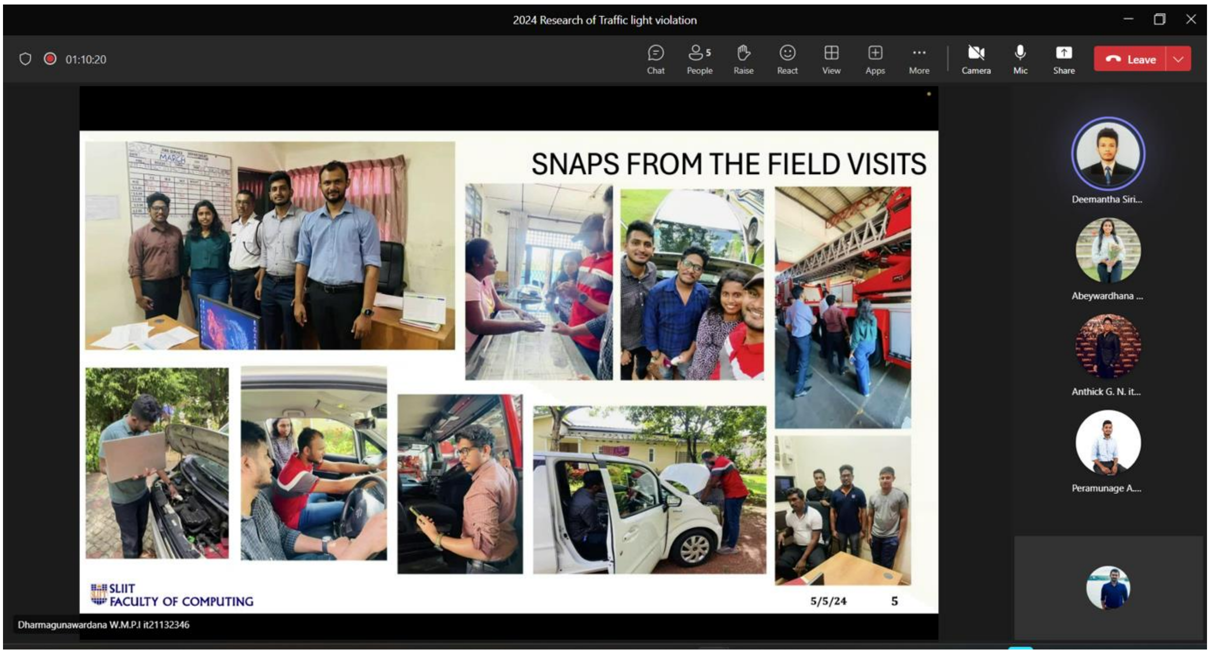
```python
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.svm import SVC
from sklearn.metrics import accuracy_score
from sklearn.preprocessing import LabelEncoder


def load_and_prepare_data(csv_filename):

    data = pd.read_csv(csv_filename)

    label_encoder = LabelEncoder()
    data['label'] = label_encoder.fit_transform(data['label'])

    X = data.drop( labels: 'label', axis=1)
    y = data['label']
    return X, y, label_encoder

```

```
C:\Users\ASUS\AppData\Local\Programs\Python\Python38\python.exe "C:\Users\ASUS\PycharmProjects\pythonProject\final projects\fire_severity\fire_severity_detection_train_c
Model Accuracy: 1.0
front sensor temp in C =
```

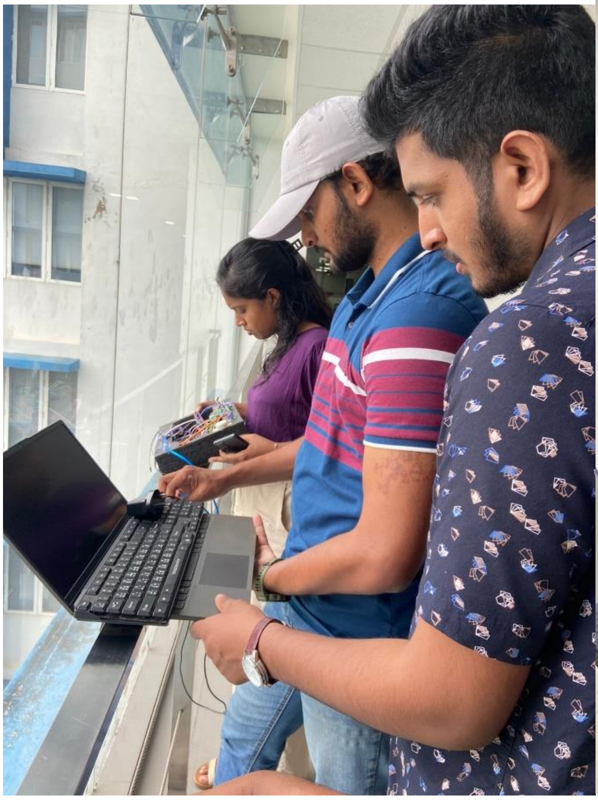
Group meeting with group members

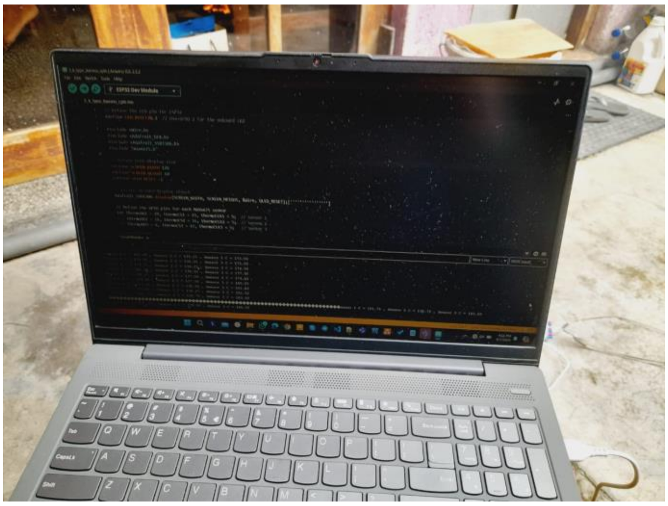

Microsoft Teams (work or school)
Edit
View
Window
Help
Mon 29 Apr 21:42
Call with Final Year Research Project
01:05:48
Chat
People
Raise
React
View
More
Camera
Mic
Share
Leave
Peramunage A.N it21080562
Abeywardhana D.N. it21133718
Anthick G. N. it21096266

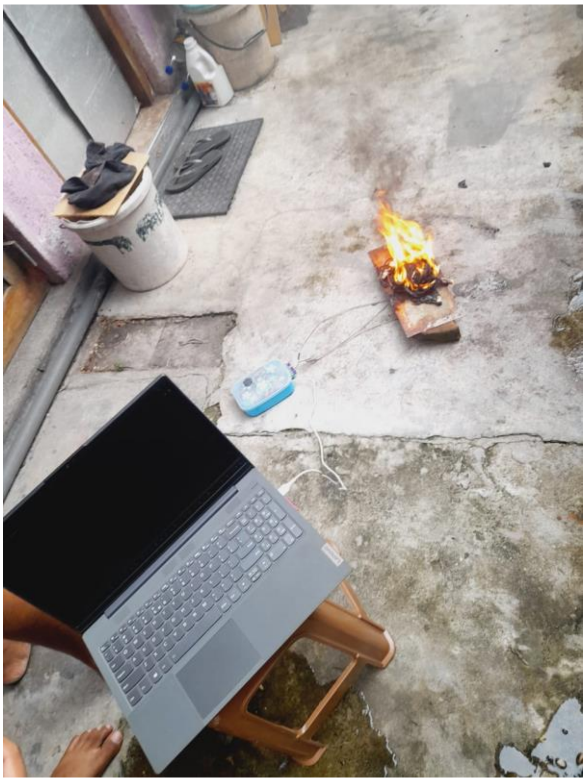
Presentation review with supervisor



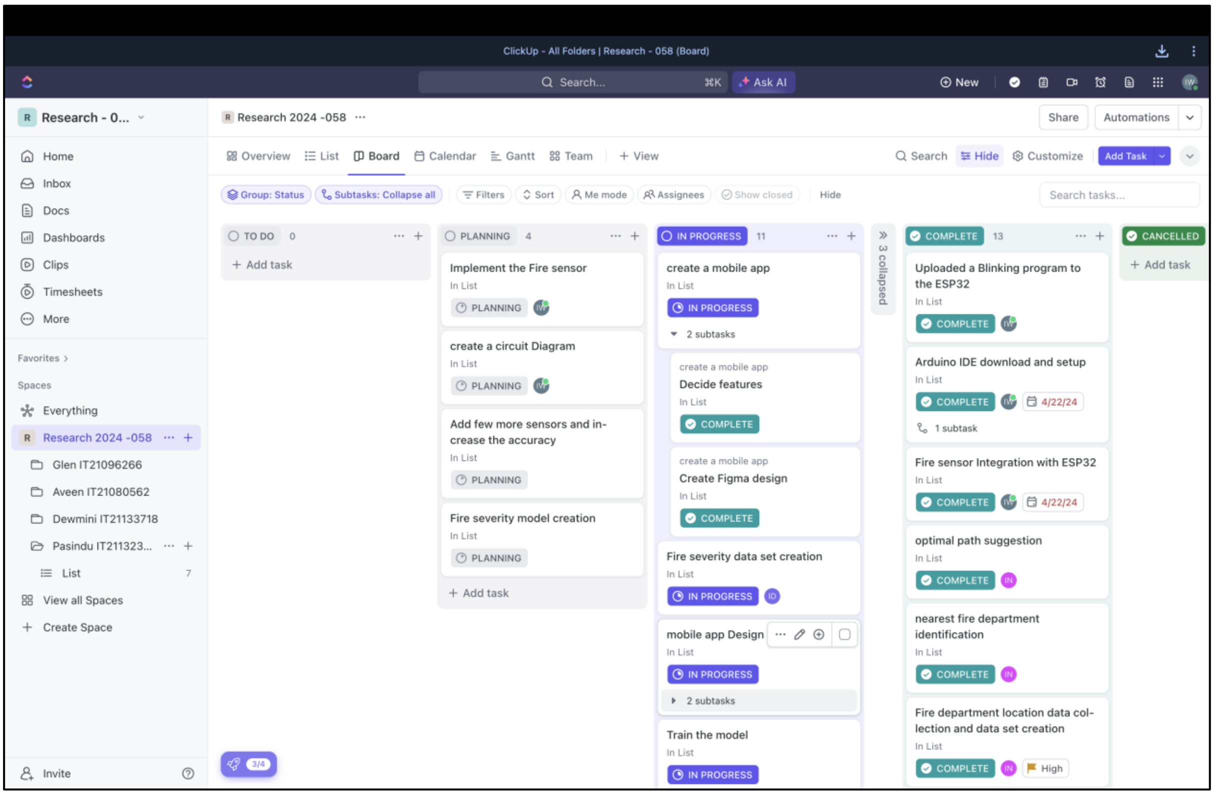
Snapshots from Field Visit



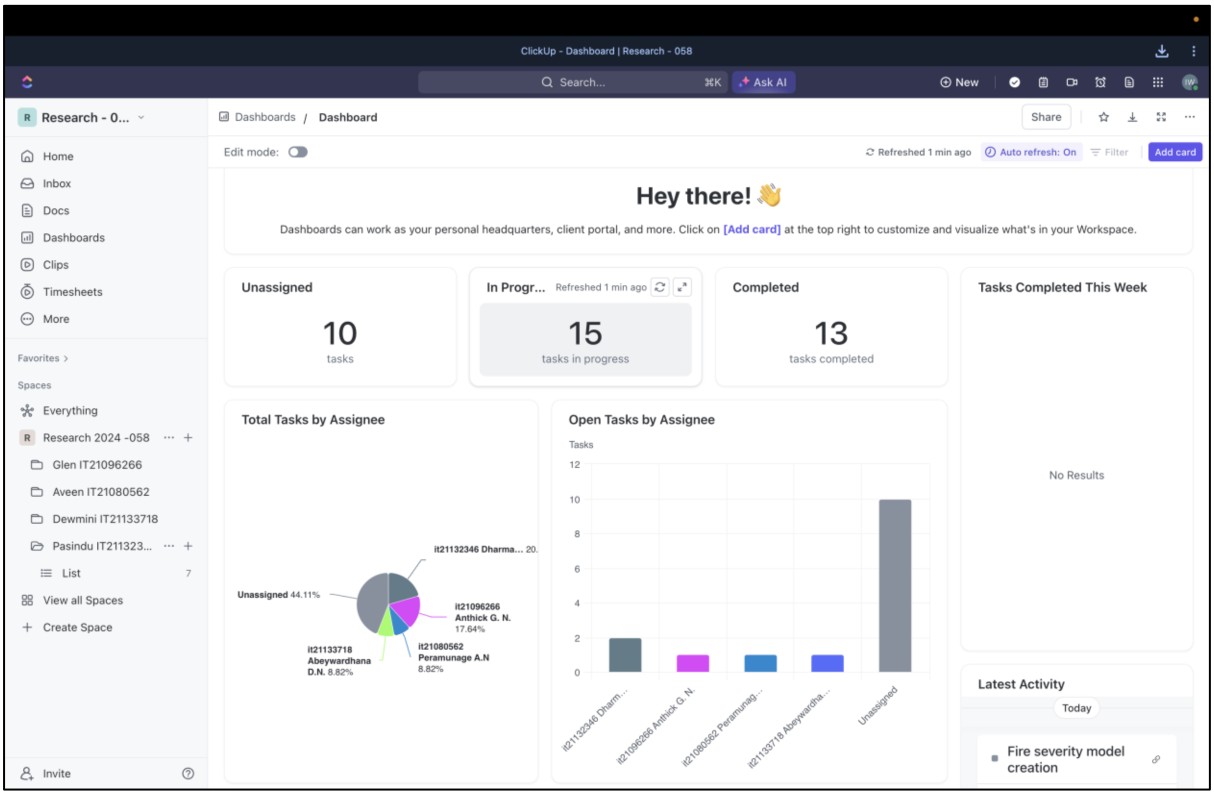

ESP32 Dev Module



Click Up Tasks Allocation



Click Up Dashboard

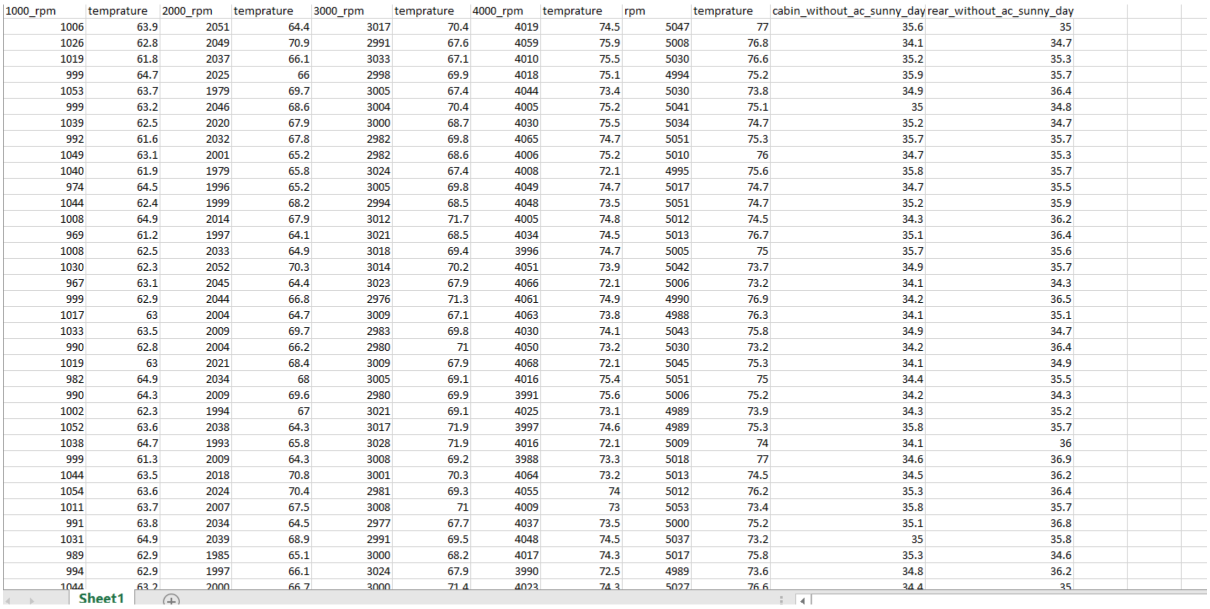


Hey there! 👋

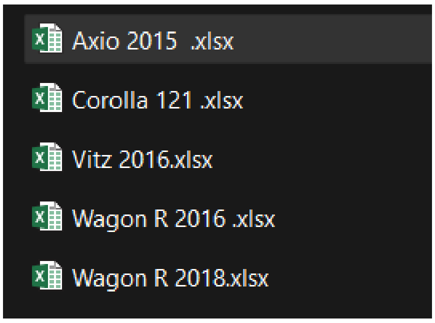
Dashboards can work as your personal headquarters, client portal, and more. Click on [Add card] at the top right to customize and visualize what's in your Workspace.

Project Implementation

Data Collection



1000_rpm	temprature	2000_rpm	temprature	3000_rpm	temprature	4000_rpm	temprature	rpm	temprature	cabin_without_ac_sunny_day	rear_without_ac_sunny_day
1006	63.9	2051	64.4	3017	70.4	4019	74.5	5047	77	35.6	35
1026	62.8	2049	70.9	2991	67.6	4059	75.9	5008	76.8	34.1	34.7
1019	61.8	2037	66.1	3033	67.1	4010	75.5	5030	76.6	35.2	35.3
999	64.7	2025	66	2998	69.9	4018	75.1	4994	75.2	35.9	35.7
1053	63.7	1979	69.7	3005	67.4	4044	73.4	5030	73.8	34.9	36.4
999	63.2	2046	68.6	3004	70.4	4005	75.2	5041	75.1	35	34.8
1039	62.5	2020	67.9	3000	68.7	4030	75.5	5034	74.7	35.2	34.7
992	61.6	2032	67.8	2982	69.8	4065	74.7	5051	75.3	35.7	35.7
1049	63.1	2001	65.2	2982	68.6	4006	75.2	5010	76	34.7	35.3
1040	61.9	1979	65.8	3024	67.4	4008	72.1	4995	75.6	35.8	35.7
974	64.5	1996	65.2	3005	69.8	4049	74.7	5017	74.7	34.7	35.5
1044	62.4	1999	68.2	2994	68.5	4048	73.5	5051	74.7	35.2	35.9
1008	64.9	2014	67.9	3012	71.7	4005	74.8	5012	74.5	34.3	36.2
969	61.2	1997	64.1	3021	68.5	4034	74.5	5013	76.7	35.1	36.4
1008	62.5	2033	64.9	3018	69.4	3996	74.7	5005	75	35.7	35.6
1030	62.3	2052	70.3	3014	70.2	4051	73.9	5042	73.7	34.9	35.7
967	63.1	2045	64.4	3023	67.9	4066	72.1	5006	73.2	34.1	34.3
999	62.9	2044	66.8	2976	71.3	4061	74.9	4990	76.9	34.2	36.5
1017	63	2004	64.7	3009	67.1	4063	73.8	4988	76.3	34.1	35.1
1033	63.5	2009	69.7	2983	69.8	4030	74.1	5043	75.8	34.9	34.7
990	62.8	2004	66.2	2980	71	4050	73.2	5030	73.2	34.2	36.4
1019	63	2021	68.4	3009	67.9	4068	72.1	5045	75.3	34.1	34.9
982	64.9	2034	68	3005	69.1	4016	75.4	5051	75	34.4	35.5
990	64.3	2009	69.6	2980	69.9	3991	75.6	5006	75.2	34.2	34.3
1002	62.3	1994	67	3021	69.1	4025	73.1	4989	73.9	34.3	35.2
1052	63.6	2038	64.3	3017	71.9	3997	74.6	4989	75.3	35.8	35.7
1038	64.7	1993	65.8	3028	71.9	4016	72.1	5009	74	34.1	36
999	61.3	2009	64.3	3008	69.2	3988	73.3	5018	77	34.6	36.9
1044	63.5	2018	70.8	3001	70.3	4064	73.2	5013	74.5	34.5	36.2
1054	63.6	2024	70.4	2981	69.3	4055	74	5012	76.2	35.3	36.4
1011	63.7	2007	67.5	3008	71	4009	73	5053	73.4	35.8	35.7
991	63.8	2034	64.5	2977	67.7	4037	73.5	5000	75.2	35.1	36.8
1031	64.9	2039	68.9	2991	69.5	4048	74.5	5037	73.2	35	35.8
989	62.9	1985	65.1	3000	68.2	4017	74.3	5017	75.8	35.3	34.6
994	62.9	1997	66.1	3024	67.9	3990	72.5	4989	73.6	34.8	36.2
1044	63.2	2000	66.7	3000	71.4	4023	74.3	5027	76.6	34.4	35



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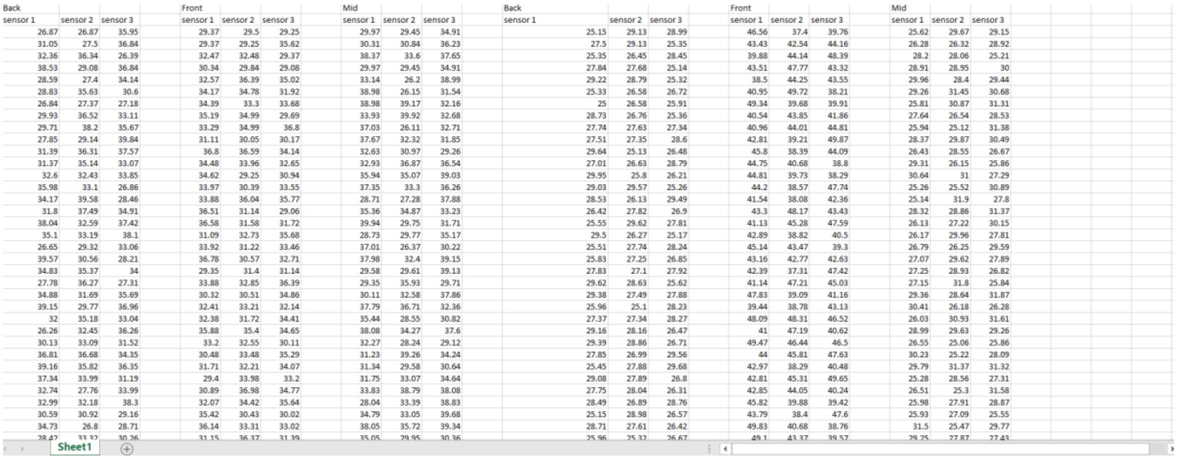
Corolla 121 .xlsx

Vitz 2016.xlsx

Wagon R 2016 .xlsx

Wagon R 2018.xlsx



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sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3
26.87	26.87	35.95	29.37	29.5	29.25	29.97	29.45	34.91	25.15	29.13	28.99	46.56	37.4	39.76	25.62	29.67	29.15
31.05	27.5	36.84	29.37	29.25	35.62	30.31	30.84	36.23	27.5	29.13	25.35	43.43	42.54	44.16	26.28	26.32	28.92
32.36	36.34	26.39	32.47	32.48	29.37	38.37	33.6	37.65	25.35	26.45	28.45	39.88	44.14	48.39	28.2	28.06	25.21
38.53	29.08	36.84	30.34	29.84	29.08	29.97	29.45	34.91	27.84	27.68	25.14	43.51	47.77	43.32	28.91	28.95	30
28.59	27.4	34.14	32.57	36.39	35.02	33.14	26.2	38.99	29.22	28.79	25.32	38.5	44.25	43.55	29.96	28.4	29.44
28.83	35.63	30.6	34.17	34.78	31.92	38.98	26.15	31.54	25.33	26.58	26.72	40.95	49.72	38.21	29.26	31.45	30.68
26.84	27.37	27.18	34.39	33.3	33.68	38.98	39.17	32.16	25	26.58	25.91	49.34	39.68	39.91	25.81	30.87	31.31
29.93	36.52	33.11	35.19	34.99	29.69	33.93	39.92	32.68	28.73	26.76	25.36	40.54	43.85	41.86	27.64	26.54	28.53
29.71	38.2	35.67	33.29	34.99	36.8	37.03	26.11	32.71	27.74	27.63	27.34	40.96	44.01	44.81	25.94	25.12	31.38
27.85	29.14	39.84	31.11	30.05	30.17	37.67	32.32	31.85	27.51	27.35	28.6	42.81	39.21	49.87	28.37	29.87	30.49
31.39	36.31	37.57	36.8	36.59	34.14	32.63	30.97	29.26	29.64	25.13	26.48	45.8	38.39	44.09	26.43	28.55	26.67
31.37	35.14	33.07	34.48	33.96	32.65	32.93	36.87	36.54	27.01	26.63	28.79	44.75	40.68	38.8	29.31	26.15	25.86
32.6	32.43	33.85	34.62	29.25	30.94	35.94	35.07	39.03	29.95	25.8	26.21	44.81	39.73	38.29	30.64	31	27.29
35.98	33.1	26.86	33.97	30.39	33.55	37.35	33.3	36.26	29.03	29.57	25.26	44.2	38.57	47.74	25.26	25.52	30.89
34.17	39.58	28.46	33.88	36.04	35.77	28.71	27.28	37.88	28.53	26.13	29.49	41.54	38.08	42.36	25.14	31.9	27.8
31.8	37.49	34.91	36.51	31.14	29.06	35.36	34.87	33.23	26.42	27.82	26.9	43.3	48.17	43.43	28.32	28.86	31.37
38.04	32.59	37.42	36.58	31.58	31.72	39.94	29.75	31.71	25.55	29.62	27.81	41.13	45.28	47.59	26.13	27.22	30.15
35.1	33.19	38.1	31.09	32.73	35.68	28.73	29.77	35.17	29.5	26.27	25.17	42.89	38.82	40.5	26.17	29.96	27.81
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39.57	30.56	28.21	36.78	30.57	32.71	37.98	32.4	39.15	25.83	27.25	26.85	43.16	42.77	42.63	27.07	29.62	27.89
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27.78	36.27	27.31	33.88	32.85	36.39	29.35	35.93	29.71	29.62	28.63	25.62	41.14	47.21	45.03	27.15	31.8	25.84
34.88	31.69	35.69	30.32	30.51	34.86	30.11	32.58	37.86	29.38	27.49	27.88	47.83	39.09	41.16	29.36	28.64	31.87
39.15	29.77	36.96	32.41	33.21	32.14	37.79	36.71	32.36	25.96	25.1	28.23	39.44	38.78	43.13	30.41	26.18	26.28
32	35.18	33.04	32.38	31.72	34.41	35.44	28.55	30.82	27.37	27.34	28.27	48.09	48.31	46.52	26.03	30.93	31.61
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36.81	36.68	34.35	30.48	33.48	35.29	31.23	39.26	34.24	27.85	26.99	29.56	44	45.81	47.63	30.23	25.22	28.09
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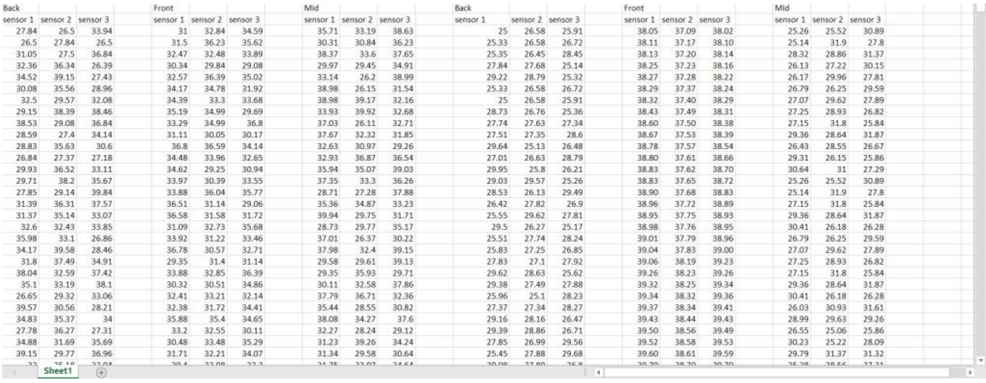
34.73	26.8	28.71	36.14	33.31	33.02	38.05	35.72	39.34	28.71	27.61	26.42	49.83	40.68	38.76	31.5	25.47	29.77
28.42	33.32	30.26	31.15	36.37	31.39	35.05	29.95	30.36	25.96	25.32	26.67	49.1	43.37	39.57	29.25	27.87	27.43



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27.84	26.5	33.94	31	32.84	34.59	35.71	33.19	38.63	25	26.58	25.91	38.05	37.09	38.02	25.26	25.52	30.89
26.5	27.84	26.5	31.5	36.23	35.62	30.31	30.84	36.23	25.33	26.58	26.72	38.11	37.17	38.10	25.14	31.9	27.8
31.05	27.5	36.84	32.47	32.48	33.89	38.37	33.6	37.65	25.35	26.45	28.45	38.13	37.20	38.14	28.32	28.86	31.37
32.36	36.34	26.39	30.34	29.84	29.08	29.97	29.45	34.91	27.84	27.68	25.14	38.25	37.23	38.16	26.13	27.22	30.15
34.52	39.15	27.43	32.57	36.39	35.02	33.14	26.2	38.99	29.22	28.79	25.32	38.27	37.28	38.22	26.17	29.96	27.81
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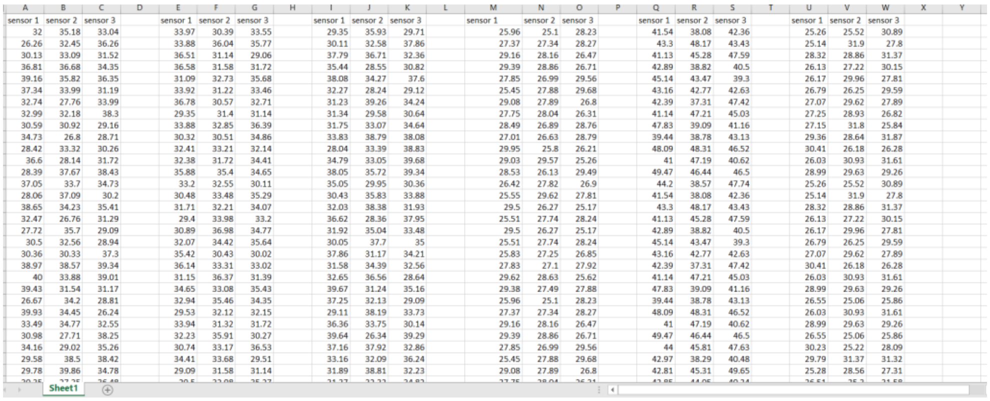
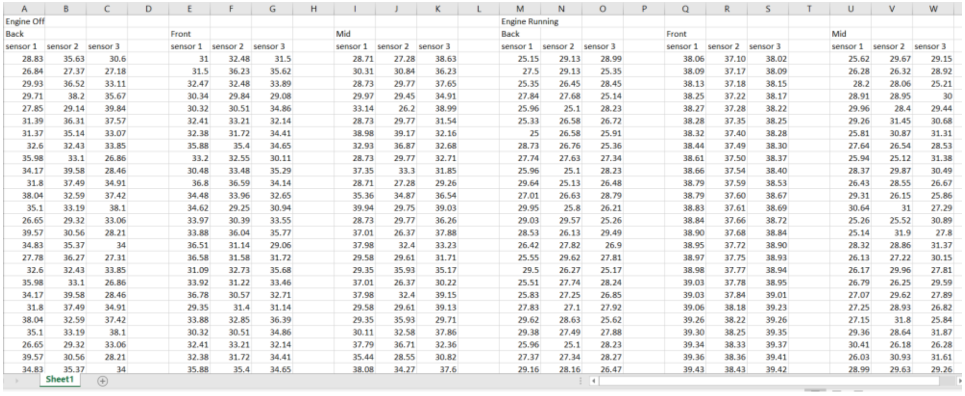
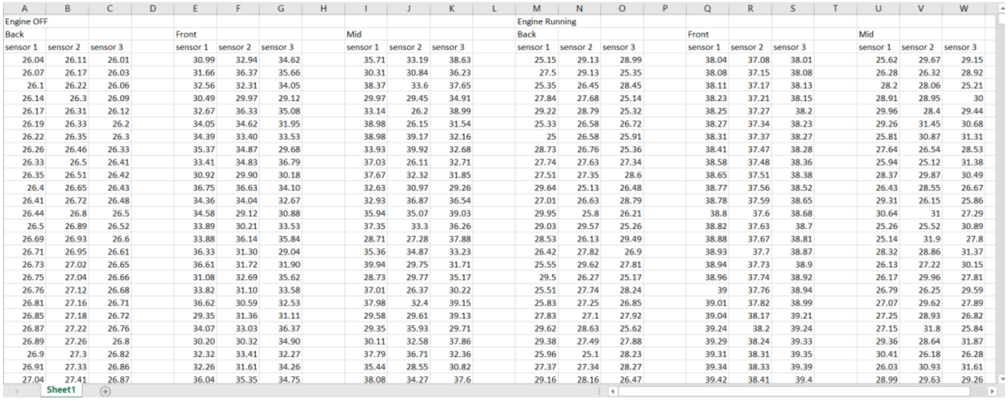
32.5	29.57	32.08	34.39	33.3	33.68	38.98	39.17	32.16	25	26.58	25.91	38.32	37.40	38.29	27.07	29.62	27.89
29.15	38.39	38.46	35.19	34.99	29.69	33.93	39.92	32.68	28.73	26.76	25.36	38.43	37.49	38.31	27.25	28.93	26.82
38.53	29.08	36.84	33.29	34.99	36.8	37.03	26.11	32.71	27.74	27.63	27.34	38.60	37.50	38.38	27.15	31.8	25.84
28.59	27.4	34.14	31.11	30.05	30.17	37.67	32.32	31.85	27.51	27.35	28.6	38.67	37.53	38.39	29.36	28.64	31.87
28.83	35.63	30.6	36.8	36.59	34.14	32.63	30.97	29.26	29.64	25.13	26.48	38.78	37.57	38.54	26.43	28.55	26.67
26.84	27.37	27.18	34.48	33.96	32.65	32.93	36.87	36.54	27.01	26.63	28.79	38.80	37.61	38.66	29.31	26.15	25.86
29.93	36.52	33.11	34.62	29.25	30.94	35.94	35.07	39.03	29.95	25.8	26.21	38.83	37.62	38.70	30.64	31	27.29
29.71	38.2	35.67	33.97	30.39	33.55	37.35	33.3	36.26	29.03	29.57	25.26	38.83	37.65	38.72	25.26	25.52	30.89
27.85	29.14	39.84	33.88	36.04	35.77	28.71	27.28	37.88	28.53	26.13	29.49	38.90	37.68	38.83	25.14	31.9	27.8
31.39	36.31	37.57	36.51	31.14	29.06	35.36	34.87	33.23	26.42	27.82	26.9	38.96	37.72	38.89	27.15	31.8	25.84
31.37	35.14	33.07	36.58	31.58	31.72	39.94	29.75	31.71	25.55	29.62	27.81	38.95	37.75	38.93	29.36	28.64	31.87
32.6	32.43	33.85	31.09	32.73	35.68	28.73	29.77	35.17	29.5	26.27	25.17	38.98	37.76	38.95	30.41	26.18	26.28
35.98	33.1	26.86	33.92	31.22	33.46	37.01	26.37	30.22	25.51	27.74	28.24	39.01	37.79	38.96	26.79	26.25	29.59
34.17	39.58	28.46	36.78	30.57	32.71	37.98	32.4	39.15	25.83	27.25	26.85	39.04	37.83	39.00	27.07	29.62	27.89
31.8	37.49	34.91	29.35	31.4	31.14	29.58	29.61	39.13	27.83	27.1	27.92	39.06	38.19	39.23	27.25	28.93	26.82
38.04	32.59	37.42	33.88	32.85	36.39	29.35	35.93	29.71	29.62	28.63	25.62	39.26	38.23	39.26	27.15	31.8	25.84
35.1	33.19	38.1	30.32	30.51	34.86	30.11	32.58	37.86	29.38	27.49	27.88	39.32	38.25	39.34	29.36	28.64	31.87
26.65	29.32	33.06	32.41	33.21	32.14	37.79	36.71	32.36	25.96	25.1	28.23	39.34	38.32	39.36	30.41	26.18	26.28
39.57	30.56	28.21	32.38	31.72	34.41	35.44	28.55	30.82	27.37	27.34	28.27	39.37	38.34	39.41	26.03	30.93	31.61
34.83	35.37	34	35.88	35.4	34.65	38.08	34.27	37.6	29.16	28.16	26.47	39.43	38.44	39.43	28.99	29.63	29.26
27.78	36.27	27.31	33.2	32.55	30.11	32.27	28.24	29.12	29.39	28.86	26.71	39.50	38.56	39.49	26.55	25.06	25.86
34.88	31.69	35.69	30.48	33.48	35.29	31.23	39.26	34.24	27.85	26.99	29.56	39.52	38.58	39.53	30.23	25.22	28.09
39.15	29.77	36.96	31.71	32.21	34.07	31.34	29.58	30.64	25.45	27.88	29.68	39.60	38.61	39.59	29.79	31.37	31.32



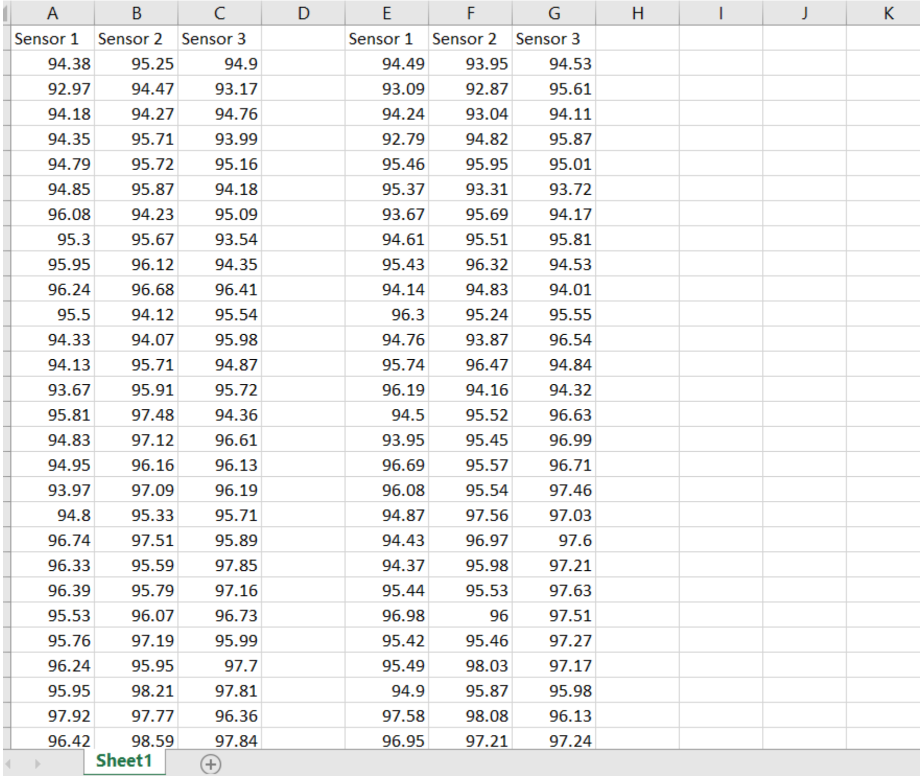
A	B	C	E	F	G	I	J	K	M	N	O	Q	R	S	U	V	W
sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3
32	35.18	33.04	33.97	30.39	33.55	29.35	35.93	29.71	25.96	25.1	28.23	41.54	38.08	42.36	25.26	25.52	30.89
26.26	32.45	36.26	33.88	36.04	35.77	30.11	32.58	37.86	27.37	27.34	28.27	43.3	48.17	43.43	25.14	31.9	27.8
30.13	33.09	31.52	36.51	31.14	29.06	37.79	36.71	32.36	29.16	28.16	26.47	41.13	45.28	47.59	28.32	28.86	31.37
36.81	36.68	34.35	36.58	31.58	31.72	35.44	28.55	30.82	29.39	28.86	26.71	42.89	38.82	40.5	26.13	27.22	30.15
39.16	35.82	36.35	31.09	32.73	35.68	38.08	34.27	37.6	27.85	26.99	29.56	45.14	43.47	39.3	26.17	29.96	27.81
37.34	33.99	31.19	33.92	31.22	33.46	32.27	28.24	29.12	25.45	27.88	29.68	43.16	42.77	42.63	26.79	26.25	29.59
32.74	27.76	33.99	36.78	30.57	32.71	31.23	39.26	34.24	29.08	27.89	26.8	42.39	37.31	47.42	27.07	29.62	27.89
32.99	32.18	38.3	29.35	31.4	31.14	31.34	29.58	30.64	27.75	28.04	26.31	41.14	47.21	45.03	27.25	28.93	26.82
30.59	30.92	29.16	33.88	32.85	36.39	31.75	33.07	34.64	28.49	26.89	28.76	47.83	39.09	41.16	27.15	31.8	25.84
34.73	26.8	28.71	30.32	30.51	34.86	33.83	38.79	38.08	27.01	26.63	28.79	39.44	38.78	43.13	29.36	28.64	31.87
28.42	33.32	30.26	32.41	33.21	32.14	28.04	33.39	38.83	29.95	25.8	26.21	48.09	48.31	46.52	30.41	26.18	26.28
36.6	28.14	31.72	32.38	31.72	34.41	34.79	33.05	39.68	29.03	29.57	25.26	41	47.19	40.62	26.03	30.93	31.61
28.39	37.67	38.43	35.88	35.4	34.65	38.05	35.72	39.34	28.53	26.13	29.49	49.47	46.44	46.5	28.99	29.63	29.26
37.05	33.7	34.73	33.2	32.55	30.11	35.05	29.95	30.36	26.42	27.82	26.9	44.2	38.57	47.74	25.26	25.52	30.89
28.06	37.09	30.2	30.48	33.48	35.29	30.43	35.83	33.88	25.55	29.62	27.81	41.54	38.08	42.36	25.14	31.9	27.8
38.65	34.23	35.41	31.71	32.21	34.07	32.03	38.38	31.93	29.5	26.27	25.17	43.3	48.17	43.43	28.32	28.86	31.37
32.47	26.76	31.29	29.4	33.98	33.2	36.62	28.36	37.95	25.51	27.74	28.24	41.13	45.28	47.59	26.13	27.22	30.15
27.72	35.7	29.09	30.89	36.98	34.77	31.92	35.04	33.48	29.5	26.27	25.17	42.89	38.82	40.5	26.17	29.96	27.81
30.5	32.56	28.94	32.07	34.42	35.64	30.05	37.7	35	25.51	27.74	28.24	45.14	43.47	39.3	26.79	26.25	29.59
30.36	30.33	37.3	35.42	30.43	30.02	37.86	31.17	34.21	25.83	27.25	26.85	43.16	42.77	42.63	27.07	29.62	27.89
38.97	38.57	39.34	36.14	33.31	33.02	31.58	34.39	32.56	27.83	27.1	27.92	42.39	37.31	47.42	30.41	26.18	26.28
40	33.88	39.01	31.15	36.37	31.39	32.65	36.56	28.64	29.62	28.63	25.62	41.14	47.21	45.03	26.03	30.93	31.61
39.43	31.54	31.17	34.65	33.08	35.43	39.67	31.24	35.16	29.38	27.49	27.88	47.83	39.09	41.16	28.99	29.63	29.26
26.67	34.2	28.81	32.94	35.46	34.35	37.25	32.13	29.09	25.96	25.1	28.23	39.44	38.78	43.13	26.55	25.06	25.86
39.93	34.45	26.24	29.53	32.12	32.15	29.11	38.19	33.73	27.37	27.34	28.27	48.09	48.31	46.52	26.03	30.93	31.61
33.49	34.77	32.55	33.94	31.32	31.72	36.36	33.75	30.14	29.16	28.16	26.47	41	47.19	40.62	28.99	29.63	29.26
30.98	27.71	38.25	32.23	35.91	30.27	39.64	26.34	39.29	29.39	28.86	26.71	49.47	46.44	46.5	26.55	25.06	25.86
34.16	29.02	35.26	30.74	33.17	36.53	37.16	37.92	32.86	27.85	26.99	29.56	44	45.81	47.63	30.23	25.22	28.09
29.58	38.5	38.42	34.41	33.68	29.51	33.16	32.09	36.24	25.45	27.88	29.68	42.97	38.29	40.48	29.79	31.37	31.32
29.78	39.86	34.78	29.09	31.58	31.14	31.89	38.81	32.23	29.08	27.89	26.8	42.81	45.31	49.65	25.28	28.56	27.31



A	B	C	E	F	G	I	J	K	M	N	O	Q	R	S	U	V	W
Engine Off									Engine Running								
Back			Front			Mid			Back			Front			Mid		
sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3
28.83	35.63	30.6	31	32.48	31.5	28.71	27.28	38.63	25.15	29.13	28.99	38.06	37.10	38.02	25.62	29.67	29.15
26.84	27.37	27.18	31.5	36.23	35.62	30.31	30.84	36.23	27.5	29.13	25.35	38.09	37.17	38.09	26.28	26.32	28.92
29.93	36.52	33.11	32.47	32.48	33.89	28.73	29.77	37.65	25.35	26.45	28.45	38.13	37.18	38.15	28.2	28.06	25.21
29.71	38.2	35.67	30.34	29.84	29.08	29.97	29.45	34.91	27.84	27.68	25.14	38.25	37.22	38.17	28.91	28.95	30
27.85	29.14	39.84	30.32	30.51	34.86	33.14	26.2	38.99	25.96	25.1	28.23	38.27	37.28	38.22	29.96	28.4	29.44
31.39	36.31	37.57	32.41	33.21	32.14	28.73	29.77	31.54	25.33	26.58	26.72	38.28	37.35	38.25	29.26	31.45	30.68
31.37	35.14	33.07	32.38	31.72	34.41	38.98	39.17	32.16	25	26.58	25.91	38.32	37.40	38.28	25.81	30.87	31.31
32.6	32.43	33.85	35.88	35.4	34.65	32.93	36.87	32.68	28.73	26.76	25.36	38.44	37.49	38.30	27.64	26.54	28.53
35.98	33.1	26.86	33.2	32.55	30.11	28.73	29.77	32.71	27.74	27.63	27.34	38.61	37.50	38.37	25.94	25.12	31.38
34.17	39.58	28.46	30.48	33.48	35.29	37.35	33.3	31.85	25.96	25.1	28.23	38.66	37.54	38.40	28.37	29.87	30.49
31.8	37.49	34.91	36.8	36.59	34.14	28.71	27.28	29.26	29.64	25.13	26.48	38.79	37.59	38.53	26.43	28.55	26.67
38.04	32.59	37.42	34.48	33.96	32.65	35.36	34.87	36.54	27.01	26.63	28.79	38.79	37.60	38.67	29.31	26.15	25.86
35.1	33.19	38.1	34.62	29.25	30.94	39.94	29.75	39.03	29.95	25.8	26.21	38.83	37.61	38.69	30.64	31	27.29
26.65	29.32	33.06	33.97	30.39	33.55	28.73	29.77	36.26	29.03	29.57	25.26	38.84	37.66	38.72	25.26	25.52	30.89
39.57	30.56	28.21	33.88	36.04	35.77	37.01	26.37	37.88	28.53	26.13	29.49	38.90	37.68	38.84	25.14	31.9	27.8
34.83	35.37	34	36.51	31.14	29.06	37.98	32.4	33.23	26.42	27.82	26.9	38.95	37.72	38.90	28.32	28.86	31.37
27.78	36.27	27.31	36.58	31.58	31.72	29.58	29.61	31.71	25.55	29.62	27.81	38.97	37.75	38.93	26.13	27.22	30.15
32.6	32.43	33.85	31.09	32.73	35.68	29.35	35.93	35.17	29.5	26.27	25.17	38.98	37.77	38.94	26.17	29.96	27.81
35.98	33.1	26.86	33.92	31.22	33.46	37.01	26.37	30.22	25.51	27.74	28.24	39.03	37.78	38.95	26.79	26.25	29.59
34.17	39.58	28.46	36.78	30.57	32.71	37.98	32.4	39.15	25.83	27.25	26.85	39.03	37.84	39.01	27.07	29.62	27.89
31.8	37.49	34.91	29.35	31.4	31.14	29.58	29.61	39.13	27.83	27.1	27.92	39.06	38.18	39.23	27.25	28.93	26.82
38.04	32.59	37.42	33.88	32.85	36.39	29.35	35.93	29.71	29.62	28.63	25.62	39.26	38.22	39.26	27.15	31.8	25.84
35.1	33.19	38.1	30.32	30.51	34.86	30.11	32.58	37.86	29.38	27.49	27.88	39.30	38.25	39.35	29.36	28.64	31.87
26.65	29.32	33.06	32.41	33.21	32.14	37.79	36.71	32.36	25.96	25.1	28.23	39.34	38.33	39.37	30.41	26.18	26.28
39.57	30.56	28.21	32.38	31.72	34.41	35.44	28.55	30.82	27.37	27.34	28.27	39.36	38.36	39.41	26.03	30.93	31.61
34.83	35.37	34	35.88	35.4	34.65	38.08	34.27	37.6	29.16	28.16	26.47	39.43	38.43	39.42	28.99	29.63	29.26



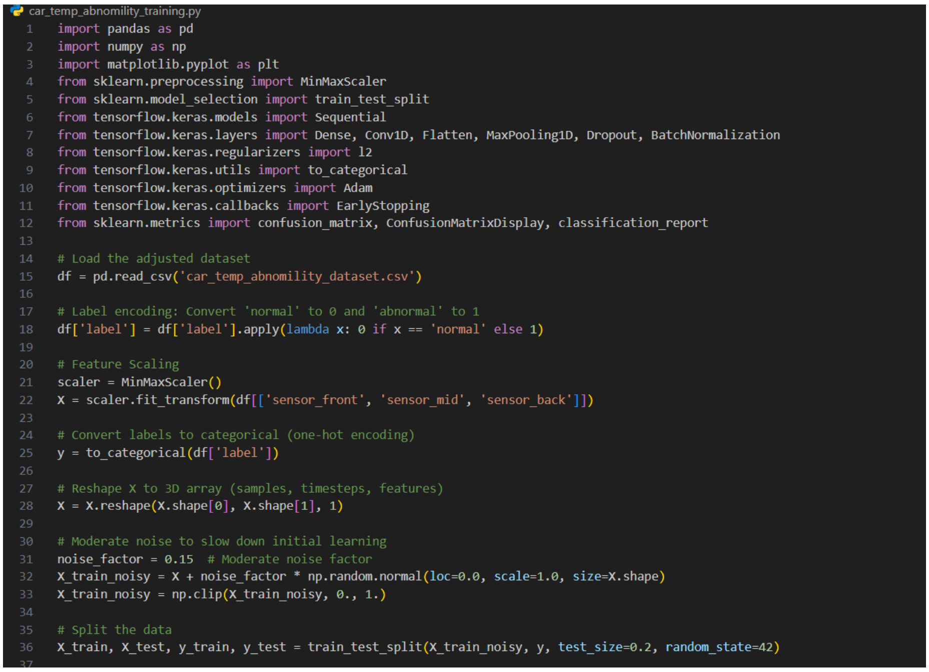
A	B	C	E	F	G	I	J	K	M	N	O	Q	R	S	U	V	W
Engine OFF									Engine Running								
Back			Front			Mid			Back			Front			Mid		
sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3	sensor 1	sensor 2	sensor 3
26.04	26.11	26.01	30.99	32.94	34.62	35.71	33.19	38.63	25.15	29.13	28.99	38.04	37.08	38.01	25.62	29.67	29.15
26.07	26.17	26.03	31.66	36.37	35.66	30.31	30.84	36.23	27.5	29.13	25.35	38.08	37.15	38.08	26.28	26.32	28.92
26.1	26.22	26.06	32.56	32.31	34.05	38.37	33.6	37.65	25.35	26.45	28.45	38.11	37.17	38.13	28.2	28.06	25.21
26.14	26.3	26.09	30.49	29.97	29.12	29.97	29.45	34.91	27.84	27.68	25.14	38.23	37.21	38.15	28.91	28.95	30
26.17	26.31	26.12	32.67	36.33	35.08	33.14	26.2	38.99	29.22	28.79	25.32	38.25	37.27	38.2	29.96	28.4	29.44
26.19	26.33	26.2	34.05	34.62	31.95	38.98	26.15	31.54	25.33	26.58	26.72	38.27	37.34	38.23	29.26	31.45	30.68
26.22	26.35	26.3	34.39	33.40	33.53	38.98	39.17	32.16	25	26.58	25.91	38.31	37.37	38.27	25.81	30.87	31.31
26.26	26.46	26.33	35.37	34.87	29.68	33.93	39.92	32.68	28.73	26.76	25.36	38.41	37.47	38.28	27.64	26.54	28.53
26.33	26.5	26.41	33.41	34.83	36.79	37.03	26.11	32.71	27.74	27.63	27.34	38.58	37.48	38.36	25.94	25.12	31.38
26.35	26.51	26.42	30.92	29.90	30.18	37.67	32.32	31.85	27.51	27.35	28.6	38.65	37.51	38.38	28.37	29.87	30.49
26.4	26.65	26.43	36.75	36.63	34.10	32.63	30.97	29.26	29.64	25.13	26.48	38.77	37.56	38.52	26.43	28.55	26.67
26.41	26.72	26.48	34.36	34.04	32.67	32.93	36.87	36.54	27.01	26.63	28.79	38.78	37.59	38.65	29.31	26.15	25.86
26.44	26.8	26.5	34.58	29.12	30.88	35.94	35.07	39.03	29.95	25.8	26.21	38.8	37.6	38.68	30.64	31	27.29
26.5	26.89	26.52	33.89	30.21	33.53	37.35	33.3	36.26	29.03	29.57	25.26	38.82	37.63	38.7	25.26	25.52	30.89
26.69	26.93	26.6	33.88	36.14	35.84	28.71	27.28	37.88	28.53	26.13	29.49	38.88	37.67	38.81	25.14	31.9	27.8
26.71	26.95	26.61	36.33	31.30	29.04	35.36	34.87	33.23	26.42	27.82	26.9	38.93	37.7	38.87	28.32	28.86	31.37
26.73	27.02	26.65	36.61	31.72	31.90	39.94	29.75	31.71	25.55	29.62	27.81	38.94	37.73	38.9	26.13	27.22	30.15
26.75	27.04	26.66	31.08	32.69	35.62	28.73	29.77	35.17	29.5	26.27	25.17	38.96	37.74	38.92	26.17	29.96	27.81
26.76	27.12	26.68	33.82	31.10	33.58	37.01	26.37	30.22	25.51	27.74	28.24	39	37.76	38.94	26.79	26.25	29.59
26.81	27.16	26.71	36.62	30.59	32.53	37.98	32.4	39.15	25.83	27.25	26.85	39.01	37.82	38.99	27.07	29.62	27.89
26.85	27.18	26.72	29.35	31.36	31.11	29.58	29.61	39.13	27.83	27.1	27.92	39.04	38.17	39.21	27.25	28.93	26.82
26.87	27.22	26.76	34.07	33.03	36.37	29.35	35.93	29.71	29.62	28.63	25.62	39.24	38.2	39.24	27.15	31.8	25.84
26.89	27.26	26.8	30.20	30.32	34.90	30.11	32.58	37.86	29.38	27.49	27.88	39.29	38.24	39.33	29.36	28.64	31.87
26.9	27.3	26.82	32.32	33.41	32.27	37.79	36.71	32.36	25.96	25.1	28.23	39.31	38.31	39.35	30.41	26.18	26.28
26.91	27.33	26.86	32.26	31.61	34.26	35.44	28.55	30.82	27.37	27.34	28.27	39.34	38.33	39.39	26.03	30.93	31.61
27.04	27.41	26.87	36.04	35.35	34.75	38.08	34.27	37.6	29.16	28.16	26.47	39.42	38.41	39.4	28.99	29.63	29.26



A	B	C	D	E	F	G	H	I	J	K
Sensor 1	Sensor 2	Sensor 3		Sensor 1	Sensor 2	Sensor 3				
94.38	95.25	94.9		94.49	93.95	94.53				
92.97	94.47	93.17		93.09	92.87	95.61				
94.18	94.27	94.76		94.24	93.04	94.11				
94.35	95.71	93.99		92.79	94.82	95.87				
94.79	95.72	95.16		95.46	95.95	95.01				
94.85	95.87	94.18		95.37	93.31	93.72				
96.08	94.23	95.09		93.67	95.69	94.17				
95.3	95.67	93.54		94.61	95.51	95.81				
95.95	96.12	94.35		95.43	96.32	94.53				
96.24	96.68	96.41		94.14	94.83	94.01				
95.5	94.12	95.54		96.3	95.24	95.55				
94.33	94.07	95.98		94.76	93.87	96.54				
94.13	95.71	94.87		95.74	96.47	94.84				
93.67	95.91	95.72		96.19	94.16	94.32				
95.81	97.48	94.36		94.5	95.52	96.63				
94.83	97.12	96.61		93.95	95.45	96.99				
94.95	96.16	96.13		96.69	95.57	96.71				
93.97	97.09	96.19		96.08	95.54	97.46				
94.8	95.33	95.71		94.87	97.56	97.03				
96.74	97.51	95.89		94.43	96.97	97.6				
96.33	95.59	97.85		94.37	95.98	97.21				
96.39	95.79	97.16		95.44	95.53	97.63				
95.53	96.07	96.73		96.98	96	97.51				
95.76	97.19	95.99		95.42	95.46	97.27				
96.24	95.95	97.7		95.49	98.03	97.17				
95.95	98.21	97.81		94.9	95.87	95.98				
97.92	97.77	96.36		97.58	98.08	96.13				
96.42	98.59	97.84		96.95	97.21	97.24				

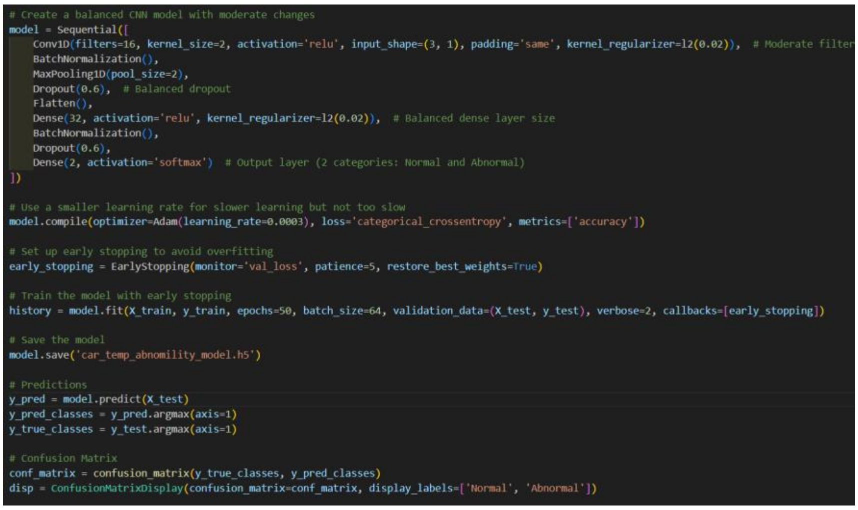
Implementation

ML Codebase

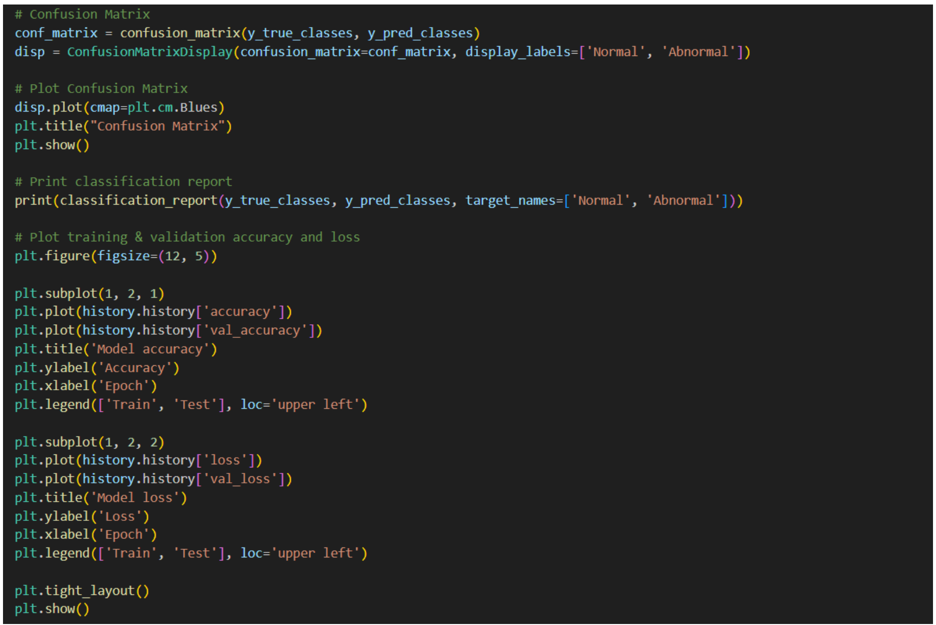


car_temp_abnomility_training.py

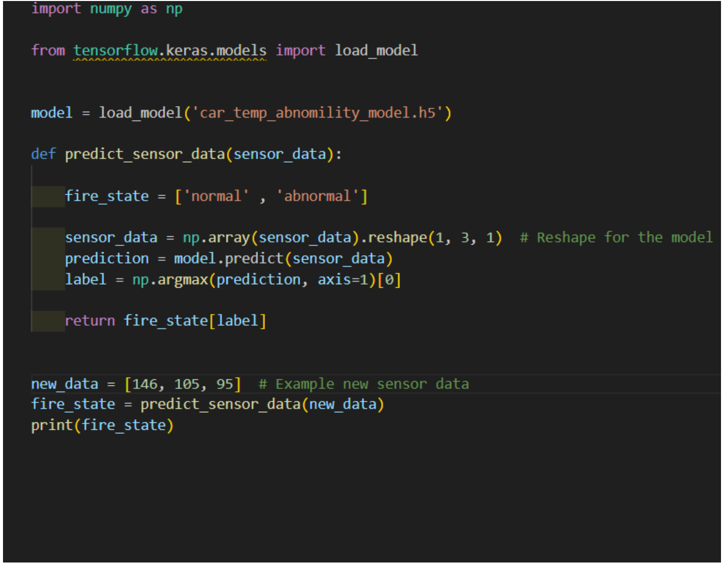
```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from sklearn.preprocessing import MinMaxScaler
from sklearn.model_selection import train_test_split
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Dense, Conv1D, Flatten, MaxPooling1D, Dropout, BatchNormalization
from tensorflow.keras.regularizers import l2
from tensorflow.keras.utils import to_categorical
from tensorflow.keras.optimizers import Adam
from tensorflow.keras.callbacks import EarlyStopping
from sklearn.metrics import confusion_matrix, ConfusionMatrixDisplay, classification_report

# Load the adjusted dataset
df = pd.read_csv('car_temp_abnomility_dataset.csv')

# Label encoding: Convert 'normal' to 0 and 'abnormal' to 1
df['label'] = df['label'].apply(lambda x: 0 if x == 'normal' else 1)

# Feature Scaling
scaler = MinMaxScaler()
X = scaler.fit_transform(df[['sensor_front', 'sensor_mid', 'sensor_back']])

# Convert labels to categorical (one-hot encoding)
y = to_categorical(df['label'])

# Reshape X to 3D array (samples, timesteps, features)
X = X.reshape(X.shape[0], X.shape[1], 1)

# Moderate noise to slow down initial learning
noise_factor = 0.15  # Moderate noise factor
X_train_noisy = X + noise_factor * np.random.normal(loc=0.0, scale=1.0, size=X.shape)
X_train_noisy = np.clip(X_train_noisy, 0., 1.)

# Split the data
X_train, X_test, y_train, y_test = train_test_split(X_train_noisy, y, test_size=0.2, random_state=42)
```



```
# Create a balanced CNN model with moderate changes
model = Sequential([
    Conv1D(filters=16, kernel_size=2, activation='relu', input_shape=(3, 1), padding='same', kernel_regularizer=l2(0.02)),  # Moderate filter
    BatchNormalization(),
    MaxPooling1D(pool_size=2),
    Dropout(0.6),  # Balanced dropout
    Flatten(),
    Dense(32, activation='relu', kernel_regularizer=l2(0.02)),  # Balanced dense layer size
    BatchNormalization(),
    Dropout(0.6),
    Dense(2, activation='softmax')  # Output layer (2 categories: Normal and Abnormal)
])

# Use a smaller learning rate for slower learning but not too slow
model.compile(optimizer=Adam(learning_rate=0.0003), loss='categorical_crossentropy', metrics=['accuracy'])

# Set up early stopping to avoid overfitting
early_stopping = EarlyStopping(monitor='val_loss', patience=5, restore_best_weights=True)

# Train the model with early stopping
history = model.fit(X_train, y_train, epochs=50, batch_size=64, validation_data=(X_test, y_test), verbose=2, callbacks=[early_stopping])

# Save the model
model.save('car_temp_abnomility_model.h5')

# Predictions
y_pred = model.predict(X_test)
y_pred_classes = y_pred.argmax(axis=1)
y_true_classes = y_test.argmax(axis=1)

# Confusion Matrix
conf_matrix = confusion_matrix(y_true_classes, y_pred_classes)
disp = ConfusionMatrixDisplay(confusion_matrix=conf_matrix, display_labels=['Normal', 'Abnormal'])
```

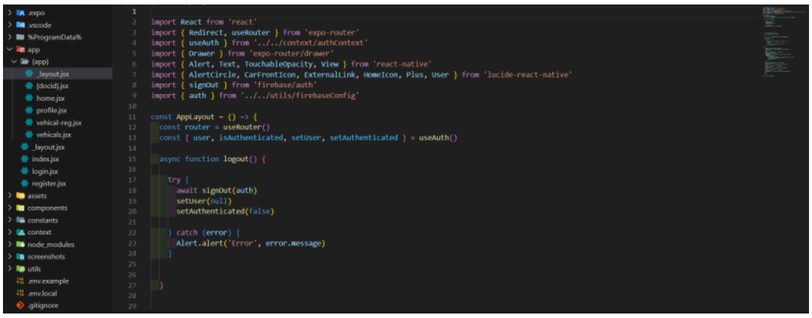


```
# Confusion Matrix
conf_matrix = confusion_matrix(y_true_classes, y_pred_classes)
disp = ConfusionMatrixDisplay(confusion_matrix=conf_matrix, display_labels=['Normal', 'Abnormal'])

# Plot Confusion Matrix
disp.plot(cmap=plt.cm.Blues)
plt.title("Confusion Matrix")
plt.show()

# Print classification report
print(classification_report(y_true_classes, y_pred_classes, target_names=['Normal', 'Abnormal']))

# Plot training & validation accuracy and loss
plt.figure(figsize=(12, 5))

plt.subplot(1, 2, 1)
plt.plot(history.history['accuracy'])
plt.plot(history.history['val_accuracy'])
plt.title('Model accuracy')
plt.ylabel('Accuracy')
plt.xlabel('Epoch')
plt.legend(['Train', 'Test'], loc='upper left')

plt.subplot(1, 2, 2)
plt.plot(history.history['loss'])
plt.plot(history.history['val_loss'])
plt.title('Model loss')
plt.ylabel('Loss')
plt.xlabel('Epoch')
plt.legend(['Train', 'Test'], loc='upper left')

plt.tight_layout()
plt.show()
```



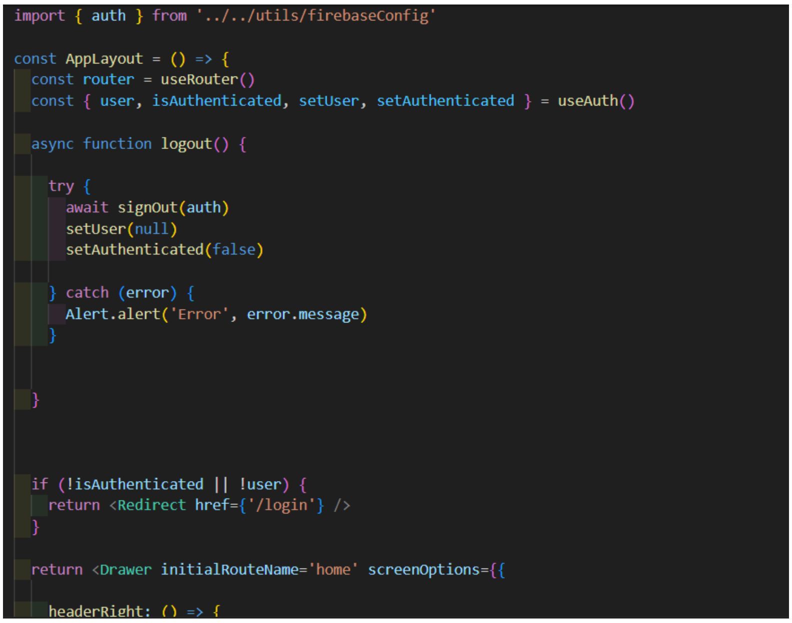
```
import numpy as np

from tensorflow.keras.models import load_model


model = load_model('car_temp_abnomility_model.h5')

def predict_sensor_data(sensor_data):

    fire_state = ['normal' , 'abnormal']

    sensor_data = np.array(sensor_data).reshape(1, 3, 1)  # Reshape for the model
    prediction = model.predict(sensor_data)
    label = np.argmax(prediction, axis=1)[0]

    return fire_state[label]


new_data = [146, 105, 95]  # Example new sensor data
fire_state = predict_sensor_data(new_data)
print(fire_state)
```

Mobile Application Codebase



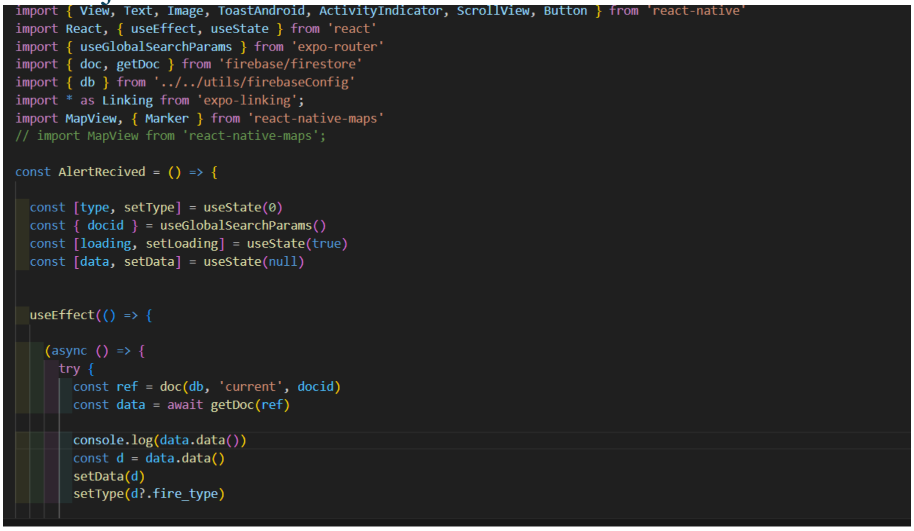
```

import React from 'react'
import { Redirect, useRouter } from 'expo-router'
import { useAuth } from '../../context/authContext'
import { Drawer } from 'expo-router/drawer'
import { Alert, Text, TouchableOpacity, View } from 'react-native'
import { AlertCircle, CarFrontIcon, ExternalLink, HomeIcon, Plus, User } from 'lucide-react-native'
import { signOut } from 'firebase/auth'
import { auth } from '../../utils/firebaseConfig'

const AppLayout = () => {
  const router = useRouter()
  const { user, isAuthenticated, setUser, setAuthenticated } = useAuth()

  async function logout() {

    try {
      await signOut(auth)
      setUser(null)
      setAuthenticated(false)

    } catch (error) {
      Alert.alert('Error', error.message)
    }


  }

```

Layout.jsx



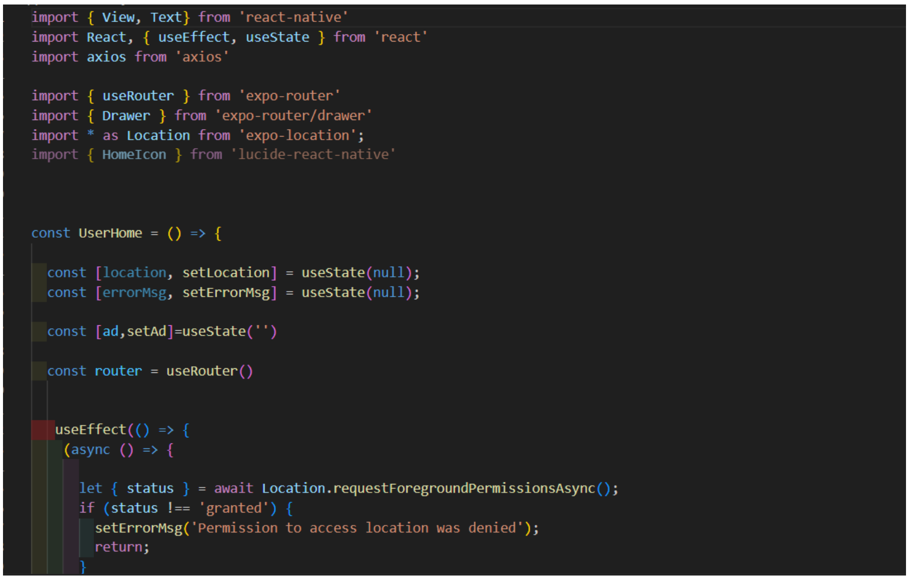
```
import { auth } from '../../utils/firebaseConfig'

const AppLayout = () => {
  const router = useRouter()
  const { user, isAuthenticated, setUser, setAuthenticated } = useAuth()

  async function logout() {

    try {
      await signOut(auth)
      setUser(null)
      setAuthenticated(false)

    } catch (error) {
      Alert.alert('Error', error.message)
    }


  }



  if (!isAuthenticated || !user) {
    return <Redirect href={'/login'} />
  }

  return <Drawer initialRouteName='home' screenOptions={{

    headerRight: () => {
```

Docid.jsx



```jsx
import { View, Text, Image, ToastAndroid, ActivityIndicator, ScrollView, Button } from 'react-native'
import React, { useEffect, useState } from 'react'
import { useGlobalSearchParams } from 'expo-router'
import { doc, getDoc } from 'firebase/firestore'
import { db } from '../../utils/firebaseConfig'
import * as Linking from 'expo-linking';
import MapView, { Marker } from 'react-native-maps'
// import MapView from 'react-native-maps';

const AlertRecived = () => {

  const [type, setType] = useState(0)
  const { docid } = useGlobalSearchParams()
  const [loading, setLoading] = useState(true)
  const [data, setData] = useState(null)


  useEffect(() => {

    (async () => {
      try {
        const ref = doc(db, 'current', docid)
        const data = await getDoc(ref)

        console.log(data.data())
        const d = data.data()
        setData(d)
        setType(d?.fire_type)
```

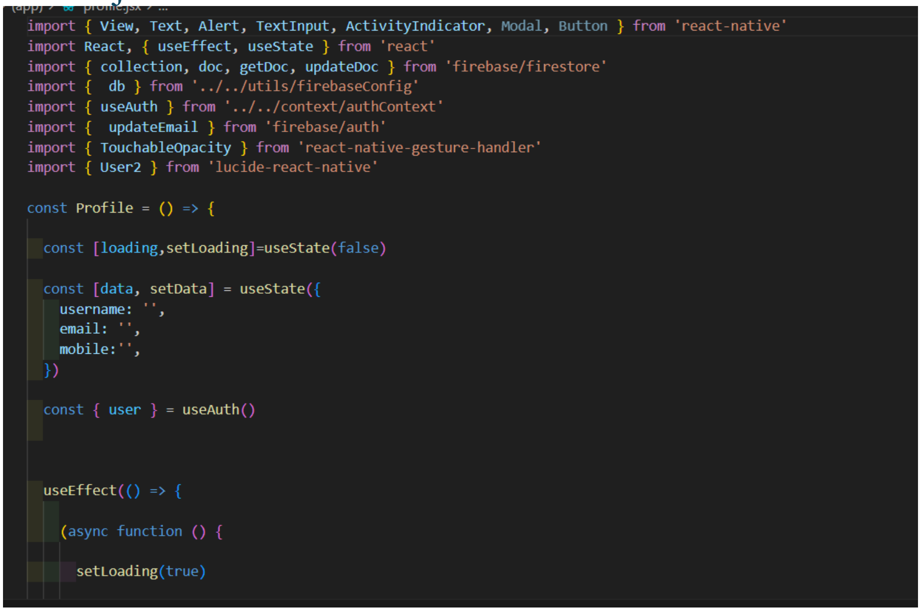
Home.jsx



```jsx
import { View, Text} from 'react-native'
import React, { useEffect, useState } from 'react'
import axios from 'axios'

import { useRouter } from 'expo-router'
import { Drawer } from 'expo-router/drawer'
import * as Location from 'expo-location';
import { HomeIcon } from 'lucide-react-native'



const UserHome = () => {

  const [location, setLocation] = useState(null);
  const [errorMsg, setErrorMsg] = useState(null);

  const [ad,setAd]=useState('')

  const router = useRouter()


  useEffect(() => {
    (async () => {

      let { status } = await Location.requestForegroundPermissionsAsync();
      if (status !== 'granted') {
        setErrorMsg('Permission to access location was denied');
        return;
      }
```

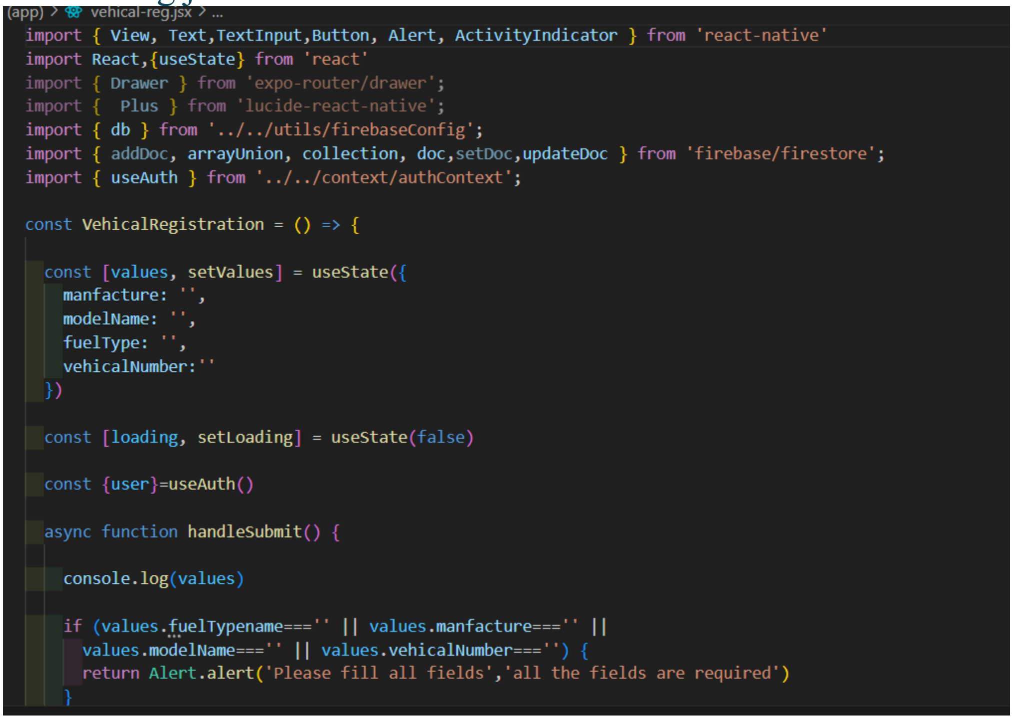
\

Profile.jsx



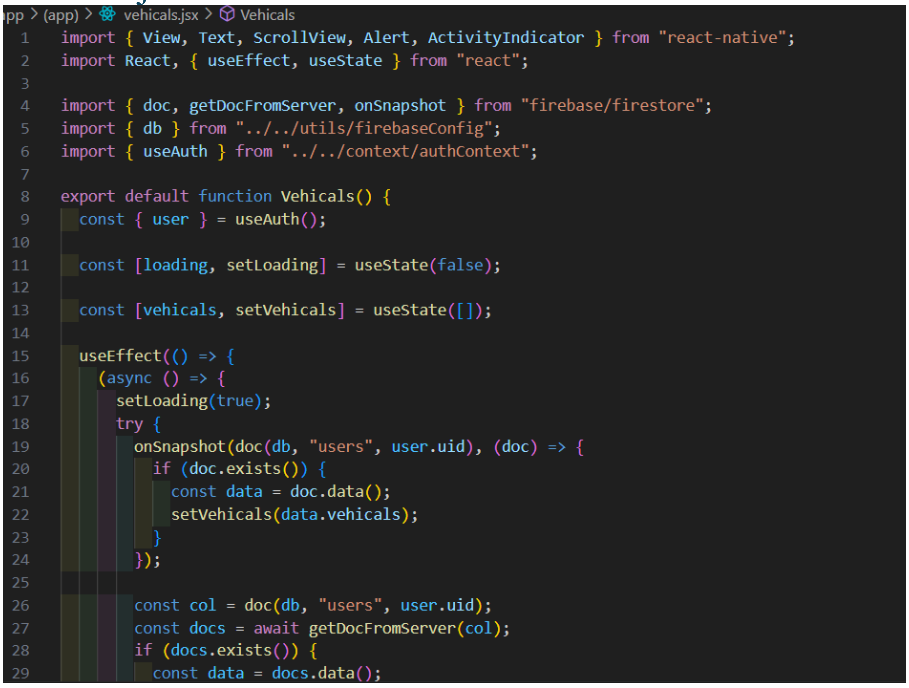
```jsx
import { View, Text, Alert, TextInput, ActivityIndicator, Modal, Button } from 'react-native'
import React, { useEffect, useState } from 'react'
import { collection, doc, getDoc, updateDoc } from 'firebase/firestore'
import {  db } from '../../utils/firebaseConfig'
import { useAuth } from '../../context/authContext'
import {  updateEmail } from 'firebase/auth'
import { TouchableOpacity } from 'react-native-gesture-handler'
import { User2 } from 'lucide-react-native'

const Profile = () => {

  const [loading,setLoading]=useState(false)

  const [data, setData] = useState({
    username: '',
    email: '',
    mobile:'',
  })

  const { user } = useAuth()


  useEffect(() => {

    (async function () {

      setLoading(true)
```

Vehicle-reg.jsx



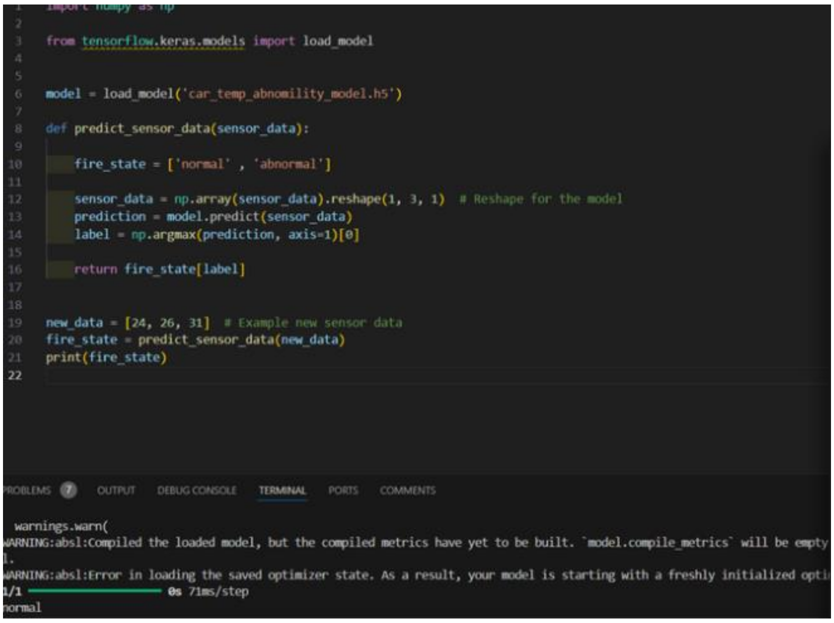
```jsx
import { View, Text,TextInput,Button, Alert, ActivityIndicator } from 'react-native'
import React,{useState} from 'react'
import { Drawer } from 'expo-router/drawer';
import {  Plus } from 'lucide-react-native';
import { db } from '../../utils/firebaseConfig';
import { addDoc, arrayUnion, collection, doc,setDoc,updateDoc } from 'firebase/firestore';
import { useAuth } from '../../context/authContext';

const VehicalRegistration = () => {

  const [values, setValues] = useState({
    manfacture: '',
    modelName: '',
    fuelType: '',
    vehicalNumber:''
  })

  const [loading, setLoading] = useState(false)

  const {user}=useAuth()

  async function handleSubmit() {

    console.log(values)

    if (values.fuelTypename==='' || values.manfacture==='' ||
      values.modelName==='' || values.vehicalNumber==='') {
      return Alert.alert('Please fill all fields','all the fields are required')
    }
```

Vehicals.jsx



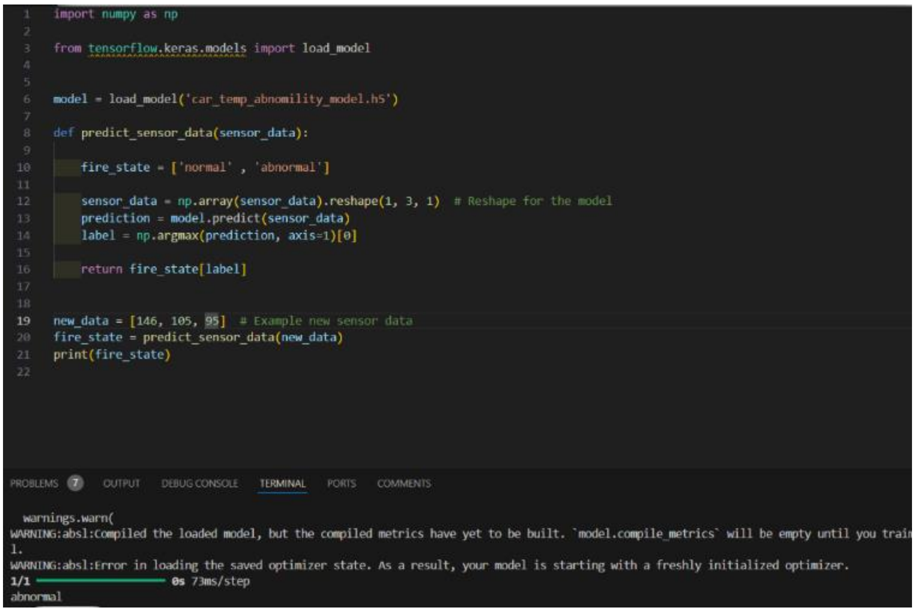
```
import { View, Text, ScrollView, Alert, ActivityIndicator } from "react-native";
import React, { useEffect, useState } from "react";

import { doc, getDocFromServer, onSnapshot } from "firebase/firestore";
import { db } from "../../utils/firebaseConfig";
import { useAuth } from "../../context/authContext";

export default function Vehicals() {
  const { user } = useAuth();

  const [loading, setLoading] = useState(false);

  const [vehicals, setVehicals] = useState([]);

  useEffect(() => {
    (async () => {
      setLoading(true);
      try {
        onSnapshot(doc(db, "users", user.uid), (doc) => {
          if (doc.exists()) {
            const data = doc.data();
            setVehicals(data.vehicals);
          }
        });

        const col = doc(db, "users", user.uid);
        const docs = await getDocFromServer(col);
        if (docs.exists()) {
          const data = docs.data();
```

Results after compilation



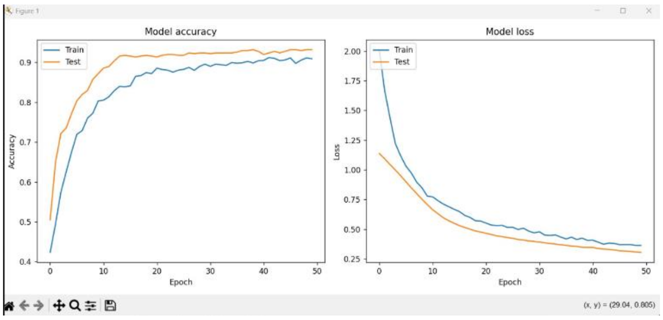
```python
import numpy as np

from tensorflow.keras.models import load_model


model = load_model('car_temp_abnomility_model.h5')

def predict_sensor_data(sensor_data):

    fire_state = ['normal' , 'abnormal']

    sensor_data = np.array(sensor_data).reshape(1, 3, 1)  # Reshape for the model
    prediction = model.predict(sensor_data)
    label = np.argmax(prediction, axis=1)[0]

    return fire_state[label]


new_data = [24, 26, 31]  # Example new sensor data
fire_state = predict_sensor_data(new_data)
print(fire_state)
```

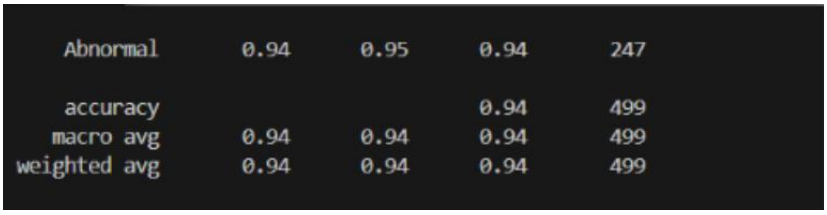
```
 warnings.warn(
WARNING:absl:Compiled the loaded model, but the compiled metrics have yet to be built. `model.compile_metrics` will be empty
1.
WARNING:absl:Error in loading the saved optimizer state. As a result, your model is starting with a freshly initialized opti
1/1 ━━━━━━━━━━━━━━━━━━━━ 0s 71ms/step
normal
```



```python
import numpy as np

from tensorflow.keras.models import load_model


model = load_model('car_temp_abnomility_model.h5')

def predict_sensor_data(sensor_data):

    fire_state = ['normal' , 'abnormal']

    sensor_data = np.array(sensor_data).reshape(1, 3, 1)  # Reshape for the model
    prediction = model.predict(sensor_data)
    label = np.argmax(prediction, axis=1)[0]

    return fire_state[label]


new_data = [146, 105, 95]  # Example new sensor data
fire_state = predict_sensor_data(new_data)
print(fire_state)
```

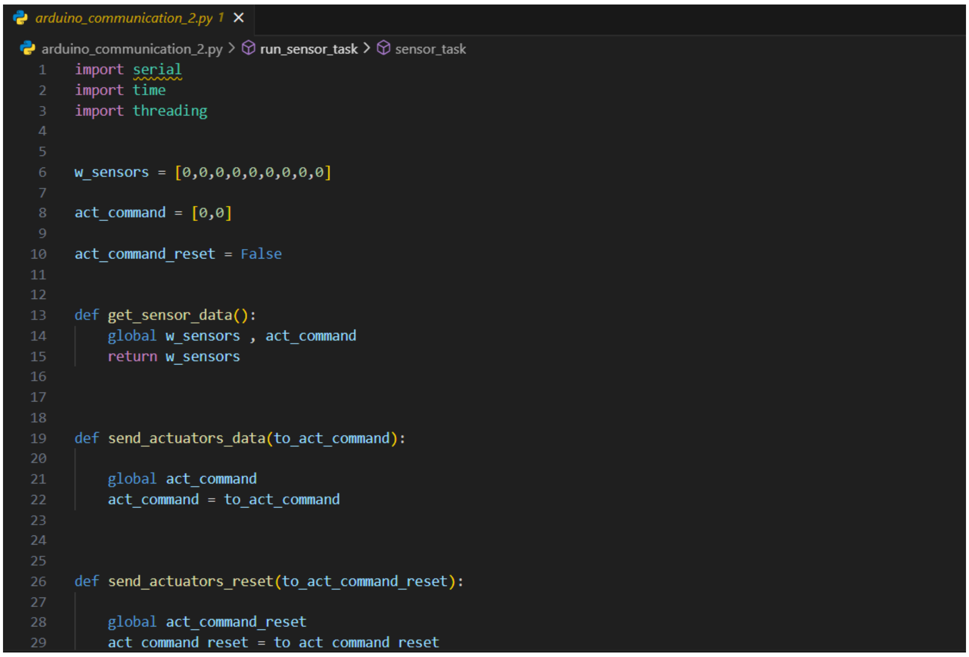
```
 warnings.warn(
WARNING:absl:Compiled the loaded model, but the compiled metrics have yet to be built. `model.compile_metrics` will be empty until you trai
1.
WARNING:absl:Error in loading the saved optimizer state. As a result, your model is starting with a freshly initialized optimizer.
1/1 ━━━━━━━━━━━━━━━━━━━━ 0s 73ms/step
abnormal
```



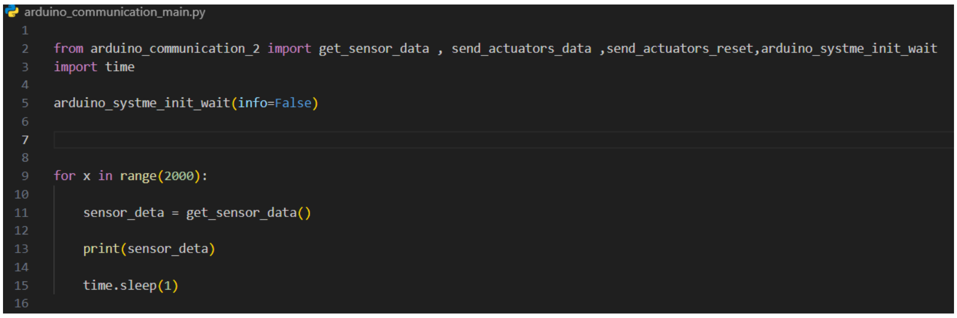


```
    Abnormal       0.94      0.95      0.94       247

    accuracy                           0.94       499
   macro avg       0.94      0.94      0.94       499
weighted avg       0.94      0.94      0.94       499
```

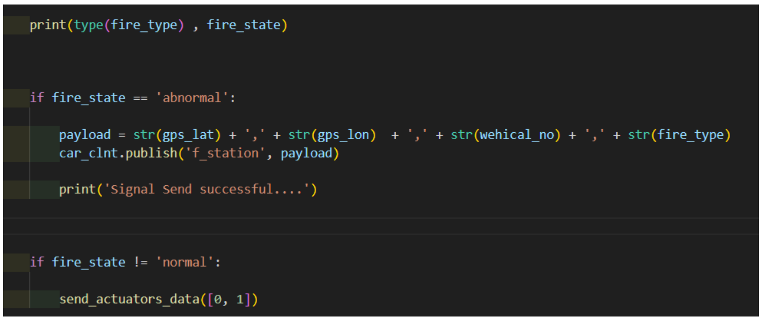
System Implementation


arduino_communication_2.py 1 ×
arduino_communication_2.py > run_sensor_task > sensor_task

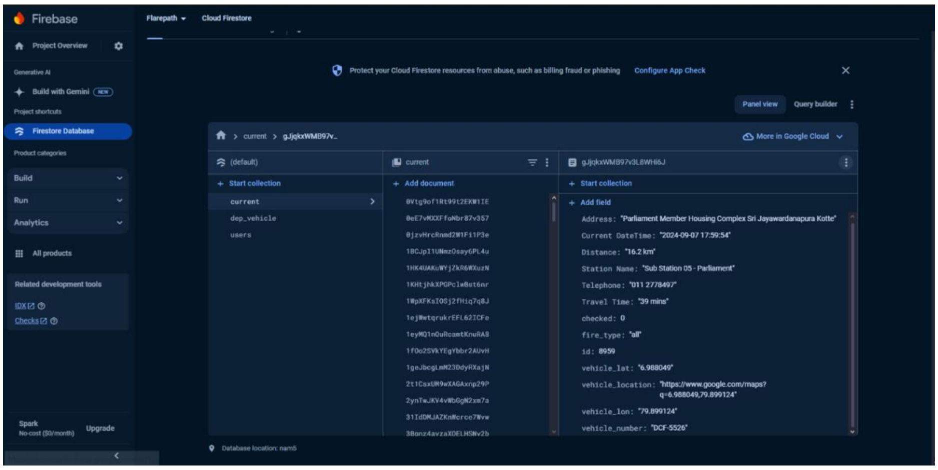
```python
import serial
import time
import threading


w_sensors = [0,0,0,0,0,0,0,0,0]

act_command = [0,0]

act_command_reset = False


def get_sensor_data():
    global w_sensors , act_command
    return w_sensors



def send_actuators_data(to_act_command):

    global act_command
    act_command = to_act_command



def send_actuators_reset(to_act_command_reset):

    global act_command_reset
    act_command_reset = to_act_command_reset
```



```python

from arduino_communication_2 import get_sensor_data , send_actuators_data ,send_actuators_reset,arduino_systme_init_wait
import time

arduino_systme_init_wait(info=False)



for x in range(2000):

    sensor_deta = get_sensor_data()

    print(sensor_deta)

    time.sleep(1)

```



```
print(type(fire_type) , fire_state)


if fire_state == 'abnormal':

    payload = str(gps_lat) + ',' + str(gps_lon)  + ',' + str(wehical_no) + ',' + str(fire_type)
    car_clnt.publish('f_station', payload)

    print('Signal Send successful....')


if fire_state != 'normal':

    send_actuators_data([0, 1])
```



Protect your Cloud Firestore resources from abuse, such as billing fraud or phishing

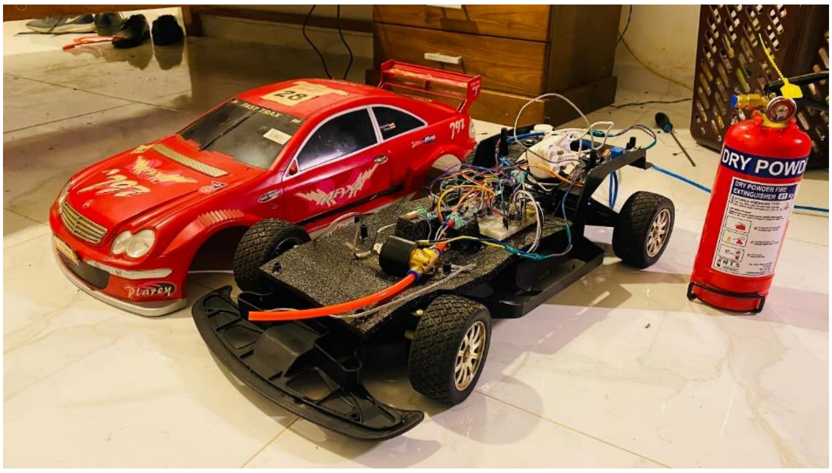
current > gJjqkxWMB97v…

(default)
current
dep_vehicle
users

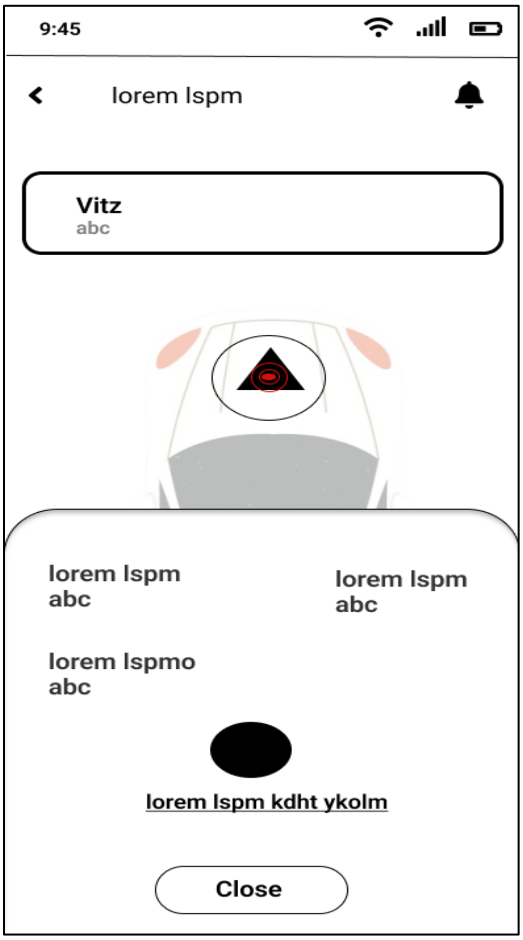
current
0Vtg9of1Rt99t2EKW1IE
0eE7vMXXFfoNbr87v357
0jzvHrcRnmd2W1Fi1P3e
1BCJpI1UNmzOsay6PL4u
1HK4UAKuWYjZkR6WXuzN
1KHtjhkXPGPclwBst6nr
1WpXFKsIOSj2fHiq7q8J
1ejWwtqrukrEFL62ICFe
1eyMQ1nOuRcamtKnuRA8
1fOo2SVkYEgYbbr2AUvH
1geJbcgLmM23DdyRXajN
2t1CsxUM9wXAGAxnp29P
2ynTwJKV4vWbGgN2xm7a
31IdDMJAZKnWcrce7Wvw
3Bonz4avzaXOELHSNv2b

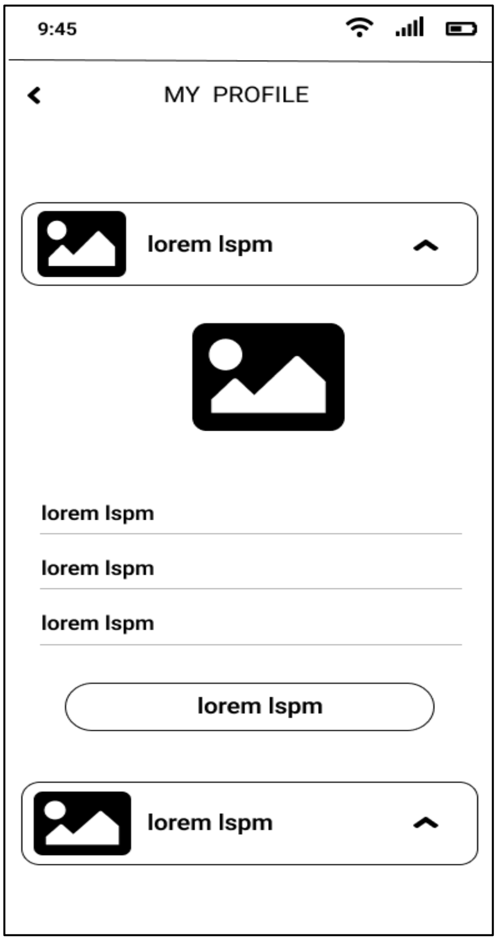
gJjqkxWMB97v3L8WHi6J

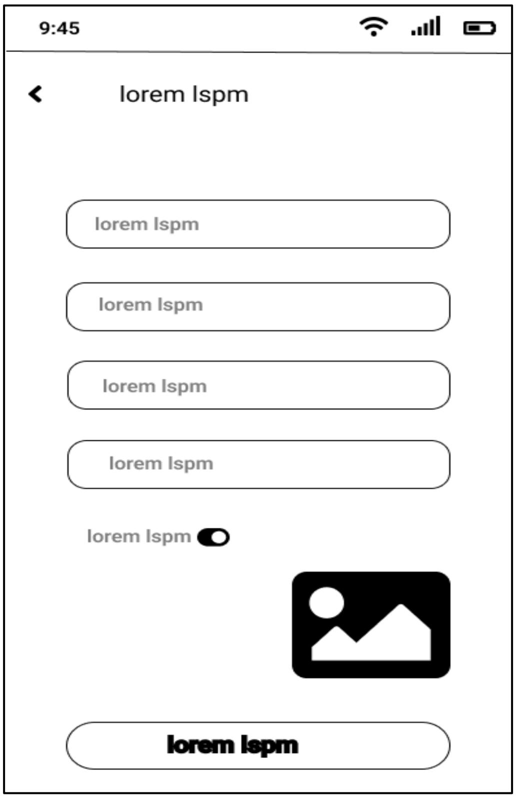
```
Address: "Parliament Member Housing Complex Sri Jayawardanapura Kotte"
Current DateTime: "2024-09-07 17:59:54"
Distance: "16.2 km"
Station Name: "Sub Station 05 - Parliament"
Telephone: "011 2778497"
Travel Time: "39 mins"
checked: 0
fire_type: "all"
id: 8959
vehicle_lat: "6.988049"
vehicle_location: "https://www.google.com/maps?
                  q=6.988049,79.899124"
vehicle_lon: "79.899124"
vehicle_number: "DCF-5526"
```



Wireframes


9:45
lorem Ispm
Vitz
abc
lorem Ispm
abc
lorem Ispm
abc
lorem Ispmo
abc
lorem Ispm kdht ykolm
Close


9:45
MY PROFILE
lorem Ispm
lorem Ispm
lorem Ispm
lorem Ispm
lorem Ispm
lorem Ispm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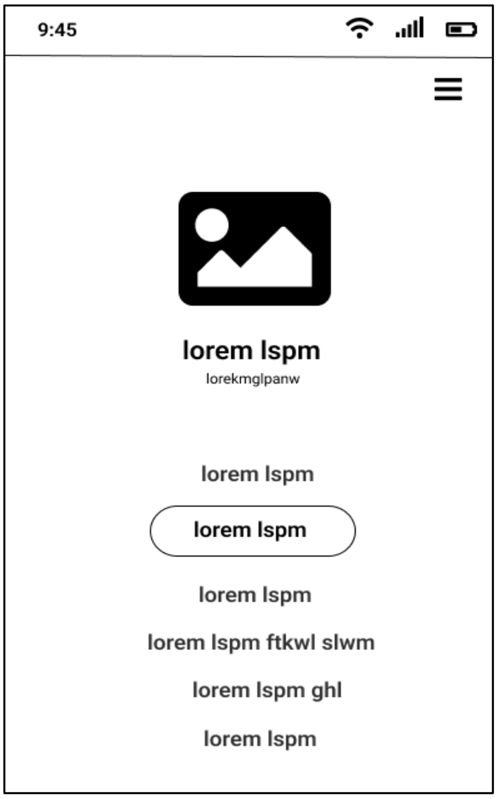
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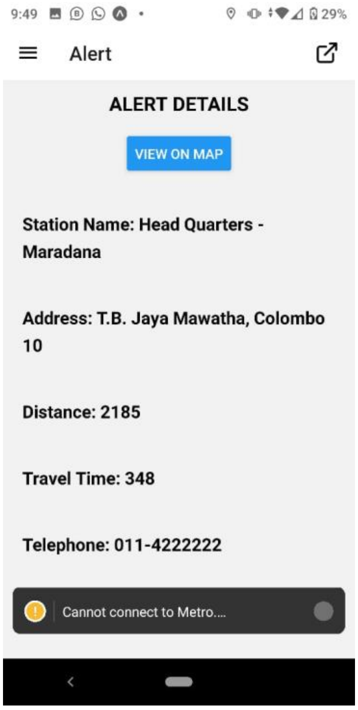
lorem Ispm ftkwl slwm
lorem Ispm ghl
lorem Ispm

Mobile Application UI



9:49 29%

Alert

ALERT DETAILS

Station Name: Head Quarters - Maradana

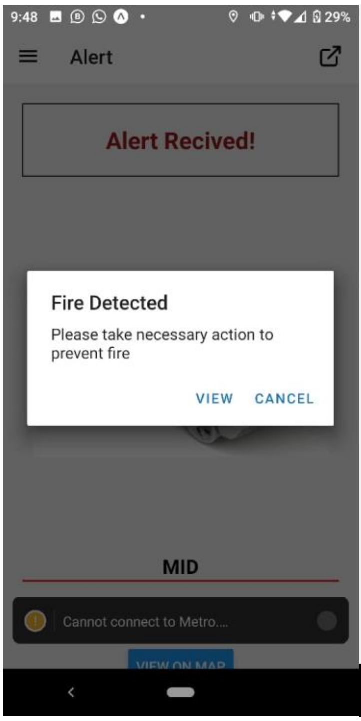
Address: T.B. Jaya Mawatha, Colombo 10

Distance: 2185

Travel Time: 348

Telephone: 011-4222222

Cannot connect to Metro....



9:48 29%

Alert

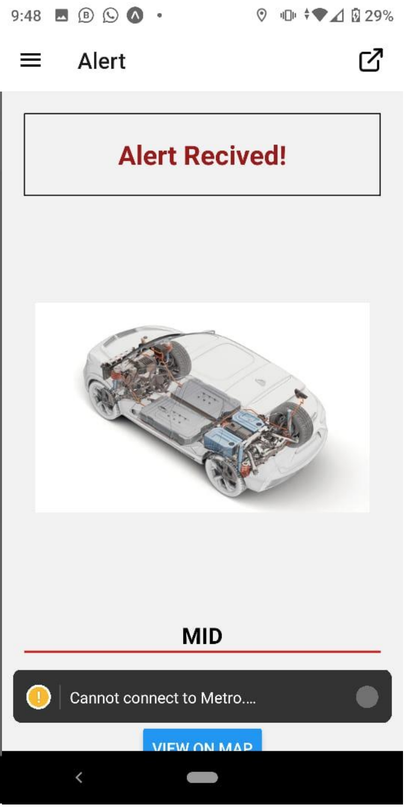
Alert Recived!

Fire Detected

Please take necessary action to prevent fire

MID

Cannot connect to Metro....



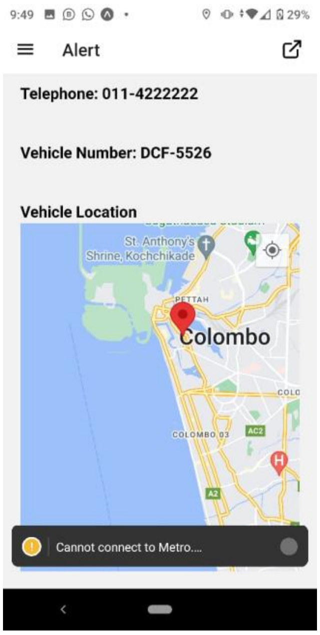
9:48 29%

Alert

Alert Recived!

MID

Cannot connect to Metro....



9:49 29%

Alert

Telephone: 011-4222222

Vehicle Number: DCF-5526

Vehicle Location

Cannot connect to Metro....