# “DreamIT”

# Multi-Model Approach to Recommend Personalized Music Playlist

.

## Project ID - TMP-2023-24-065

## Status Document - 1

**Supervised by –** Mr. Thusithanjana Thilakarathne

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Department of Information Technology.

Sri Lanka Institute of Information Technology

## Declaration

I declare that this is my work, and this proposal does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any other university or institute of higher learning, and to the best of our knowledge and belief, it does not contain any material previously published or written by another person except where the acknowledgment is made in the text.

| Name | Student ID | Signature |
|---|---|---|
| Gunasekara C.M | It20665852 | Malshan |

The above candidate is carrying out research for the undergraduate Dissertation under my supervision.

............................................ ..................................

Signature of the supervisor Date

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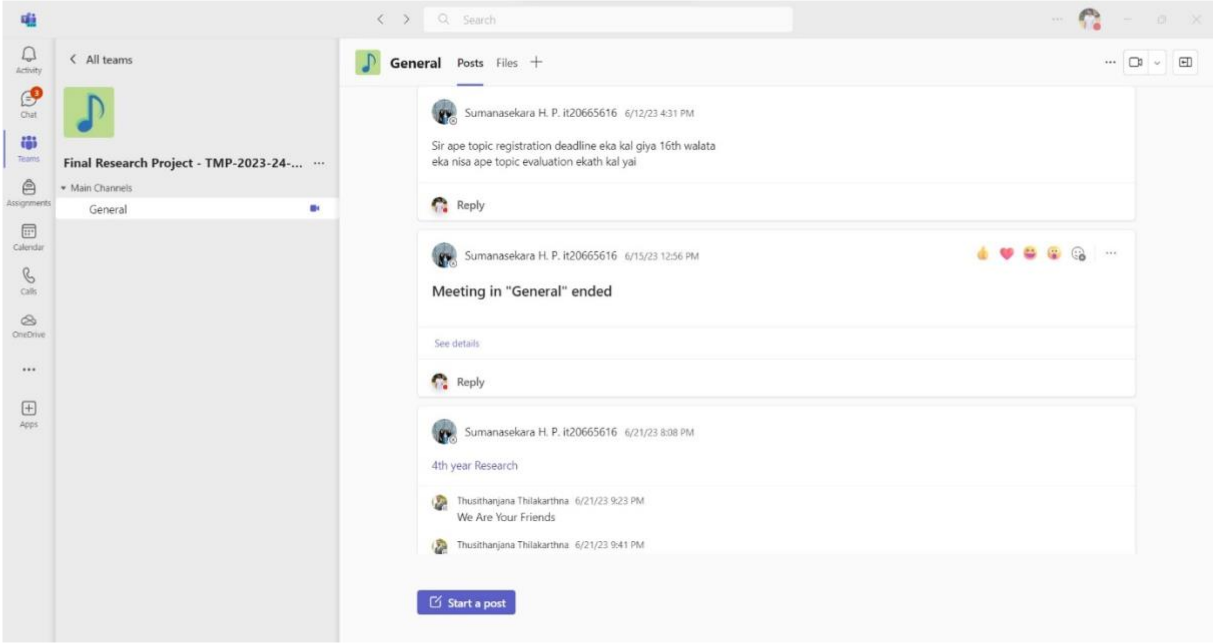
# 1.Screenshots of calls of ms teams



Sumanasekara H. P. it20665616 6/12/23 4:31 PM

Sir ape topic registration deadline eka kal giya 16th walata
eka nisa ape topic evaluation ekath kal yai

Sumanasekara H. P. it20665616 6/15/23 12:56 PM

Meeting in "General" ended

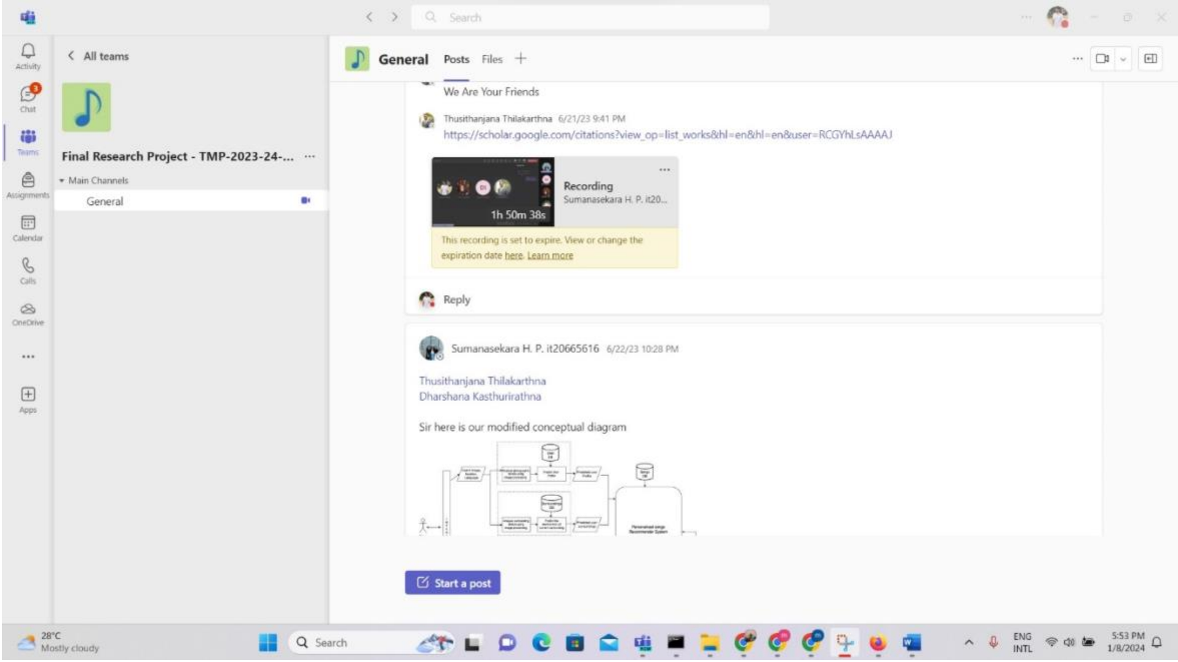
Sumanasekara H. P. it20665616 6/21/23 8:08 PM

4th year Research

Thusithanjana Thilakarthna 6/21/23 9:23 PM
We Are Your Friends

Thusithanjana Thilakarthna 6/21/23 9:41 PM

*Figure : meetings conducted through teams*



We Are Your Friends

Thusithanjana Thilakarthna 6/21/23 9:41 PM
https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=RCGYhLsAAAAJ

Recording
Sumanasekara H. P. it20...
1h 50m 38s

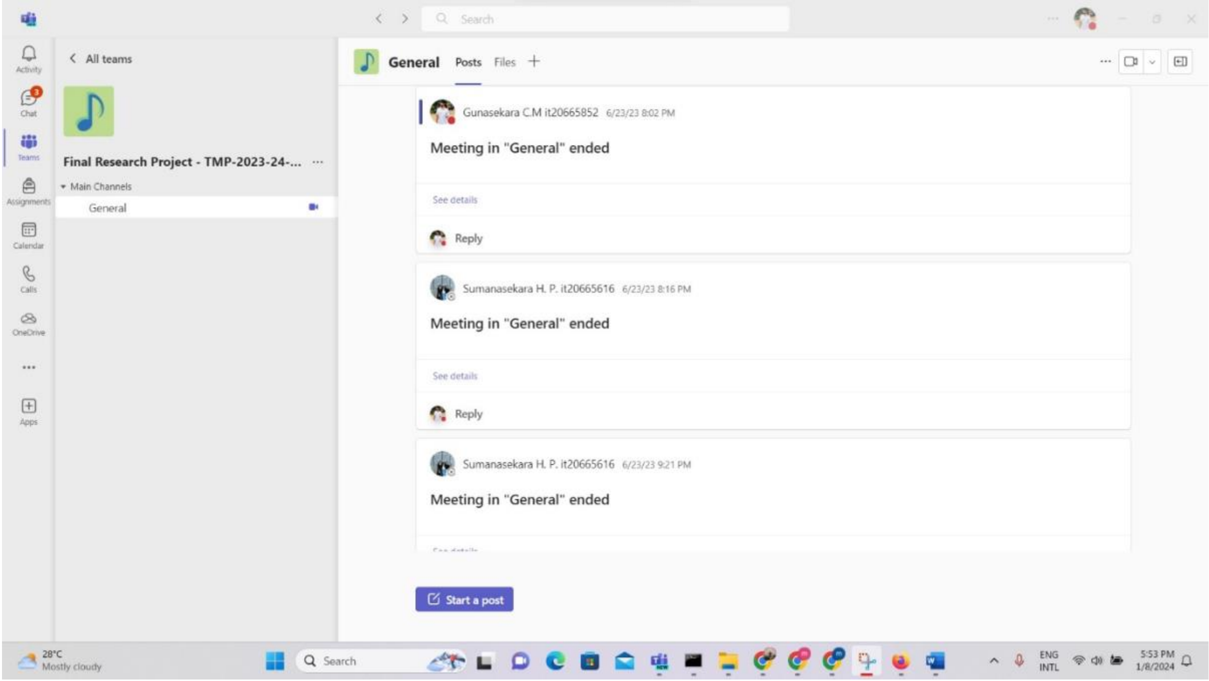
This recording is set to expire. View or change the expiration date here. Learn more

Sumanasekara H. P. it20665616 6/22/23 10:28 PM

Thusithanjana Thilakarthna
Dharshana Kasthurirathna

Sir here is our modified conceptual diagram

*Figure : meetings conducted through teams*



Gunasekara C.M it20665852 6/23/23 8:02 PM

Meeting in "General" ended

See details

Reply

Sumanasekara H. P. it20665616 6/23/23 8:16 PM

Meeting in "General" ended

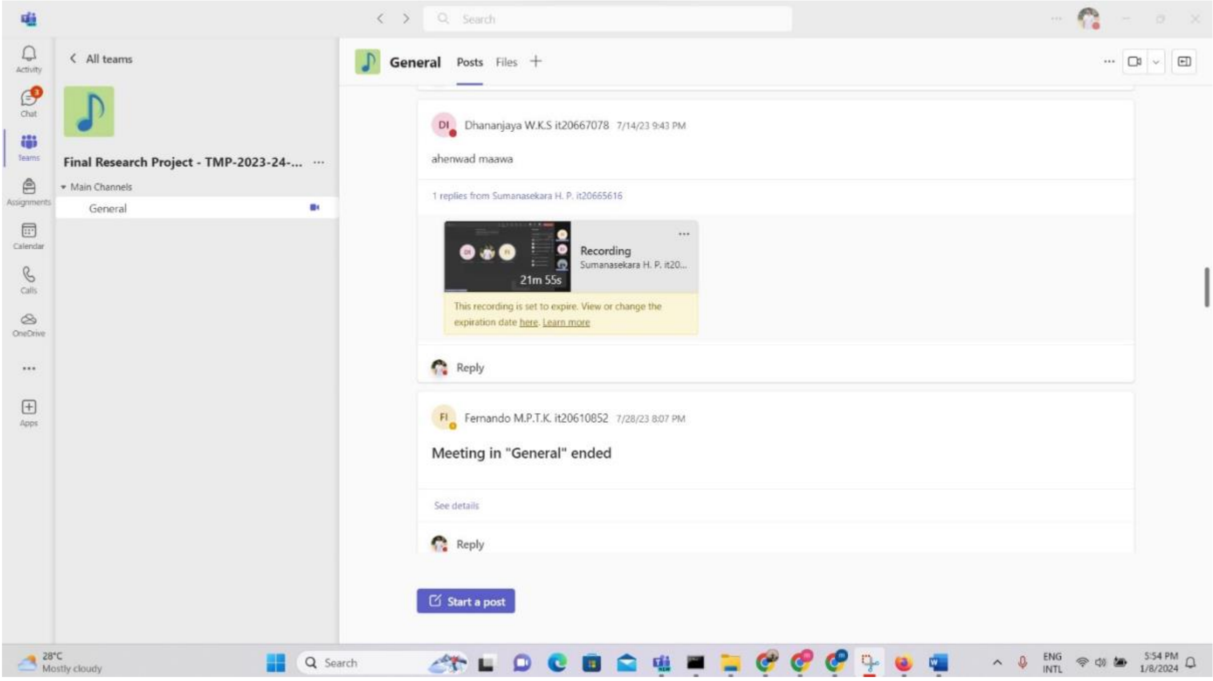
See details

Reply

Sumanasekara H. P. it20665616 6/23/23 9:21 PM

Meeting in "General" ended

*Figure : meetings conducted through teams*



Dhananjaya W.K.S it20667078 7/14/23 9:43 PM

ahenwad maawa

1 replies from Sumanasekara H. P. it20665616

Recording
Sumanasekara H. P. it20...
21m 55s

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

Reply

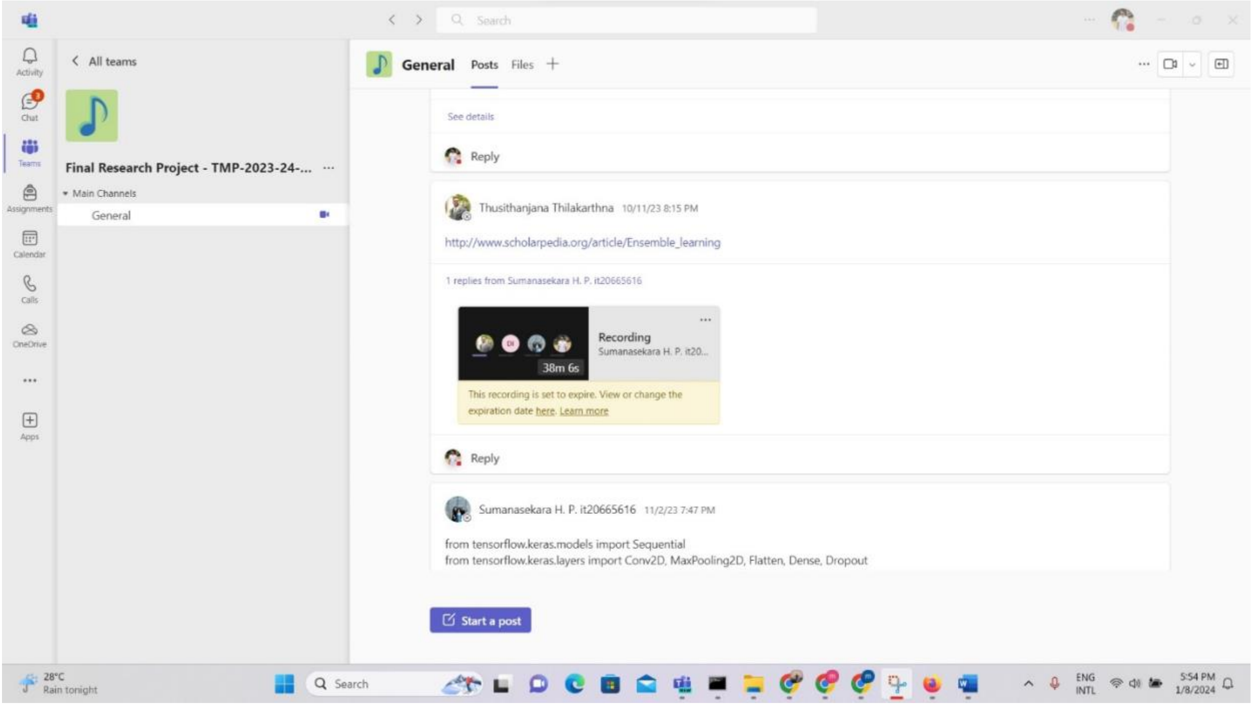
Fernando M.P.T.K. it20610852 7/28/23 8:07 PM

Meeting in "General" ended

See details

Reply

*Figure : meetings conducted through teams*



Final Research Project - TMP-2023-24-...

Main Channels

General

See details

Reply

Thusithanjana Thilakarthna 10/11/23 8:15 PM

http://www.scholarpedia.org/article/Ensemble_learning

1 replies from Sumanasekara H. P. it20665616

Recording
Sumanasekara H. P. it20...
38m 6s

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

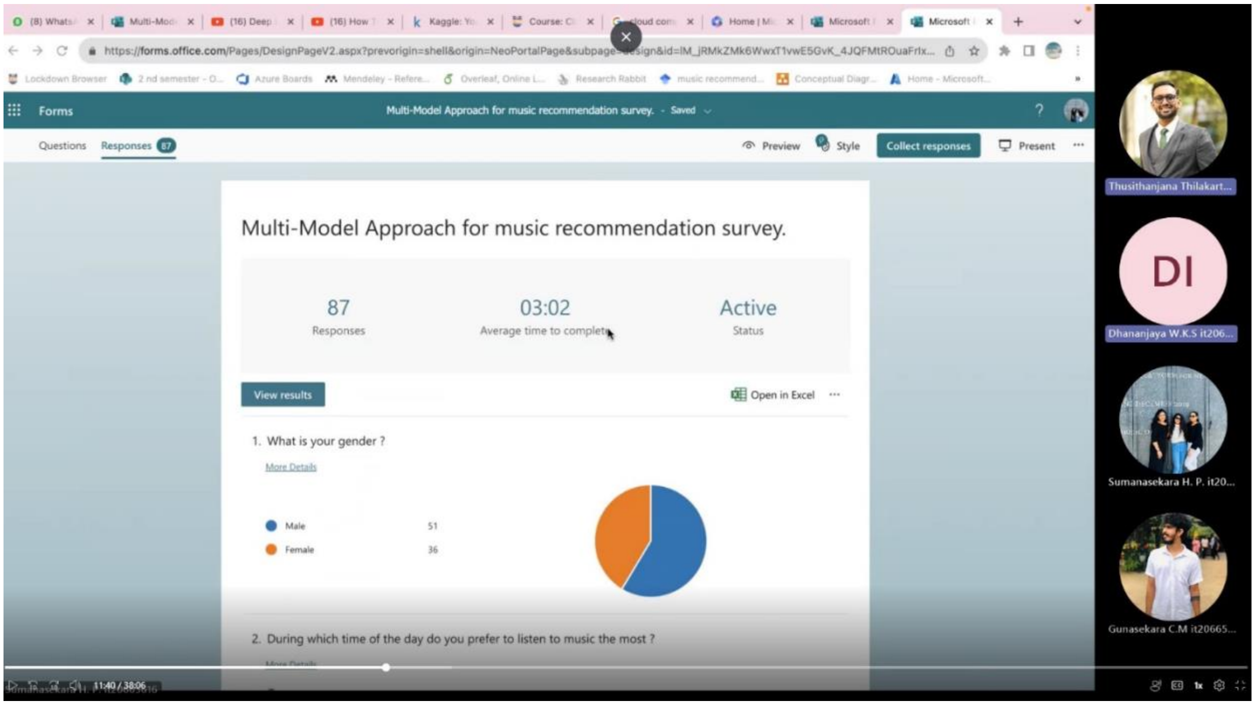
Reply

Sumanasekara H. P. it20665616 11/2/23 7:47 PM

```
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Conv2D, MaxPooling2D, Flatten, Dense, Dropout
```

Start a post

*Figure : meetings conducted through teams*



Multi-Model Approach for music recommendation survey.

| 87 | 03:02 | Active |
|---|---|---|
| Responses | Average time to complete | Status |

View results

Open in Excel

1. What is your gender ?

More Details

| | |
|---|---|
| ● Male | 51 |
| ● Female | 36 |

2. During which time of the day do you prefer to listen to music the most ?

Thusithanjana Thilakart...

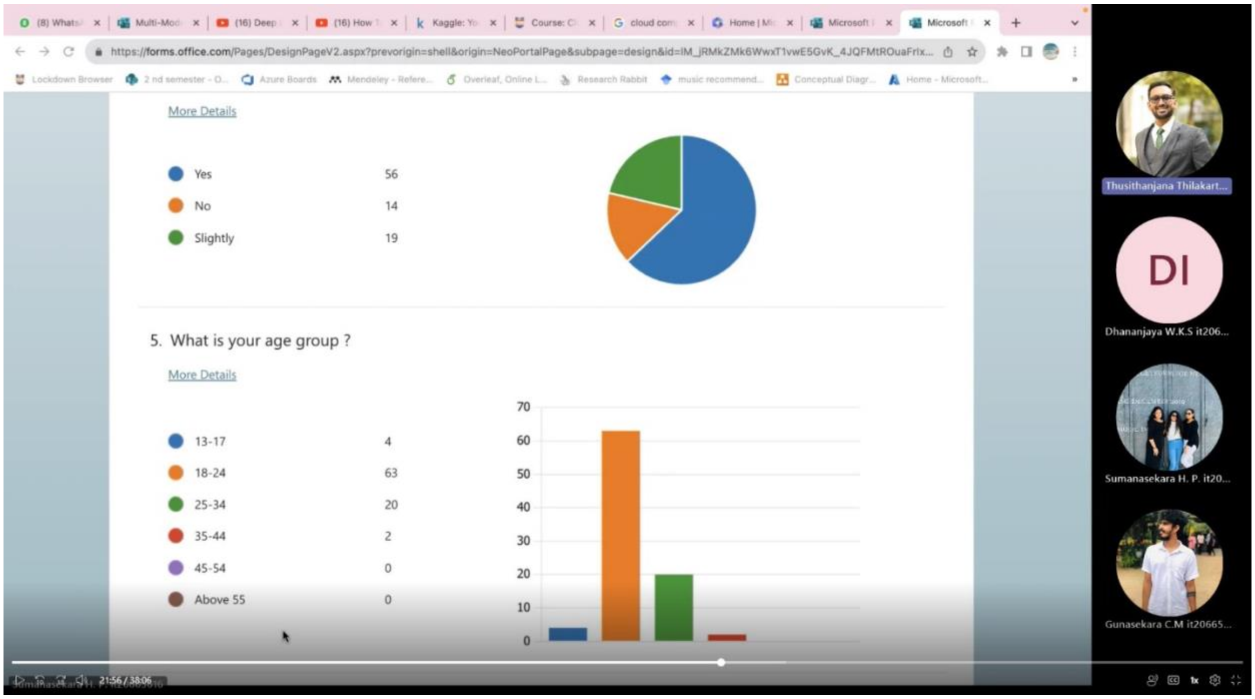
Dhananjaya W.K.S it206...

Sumanasekara H. P. it20...

Gunasekara C.M it20665...

11:40 / 38:06

*Figure: meetings conducted through teams*



More Details

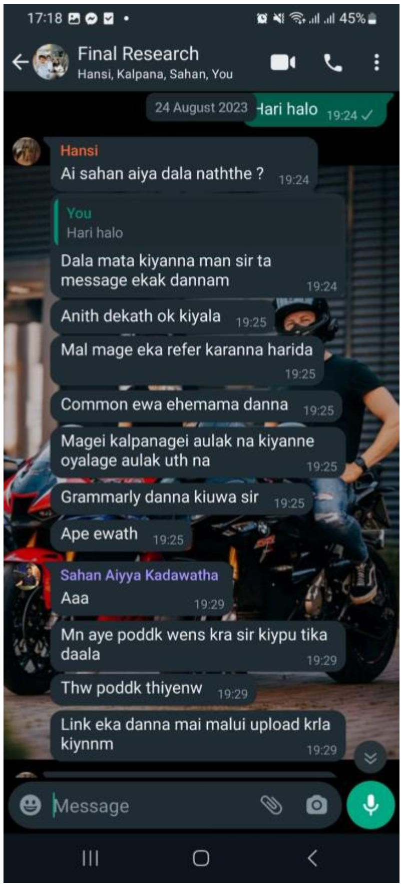
| | |
|---|---|
| ● Yes | 56 |
| ● No | 14 |
| ● Slightly | 19 |

5. What is your age group ?

More Details

| | |
|---|---|
| ● 13-17 | 4 |
| ● 18-24 | 63 |
| ● 25-34 | 20 |
| ● 35-44 | 2 |
| ● 45-54 | 0 |
| ● Above 55 | 0 |

*Figure: meetings conducted through teams*



Hari halo 19:24

Hansi
Ai sahan aiya dala naththe ? 19:24

You
Hari halo
Dala mata kiyanna man sir ta message ekak dannam 19:24

Anith dekath ok kiyala 19:25

Mal mage eka refer karanna harida 19:25

Common ewa ehemama danna 19:25

Magei kalpanagei aulak na kiyanne oyalage aulak uth na 19:25

Grammarly danna kiuwa sir 19:25

Ape ewath 19:25

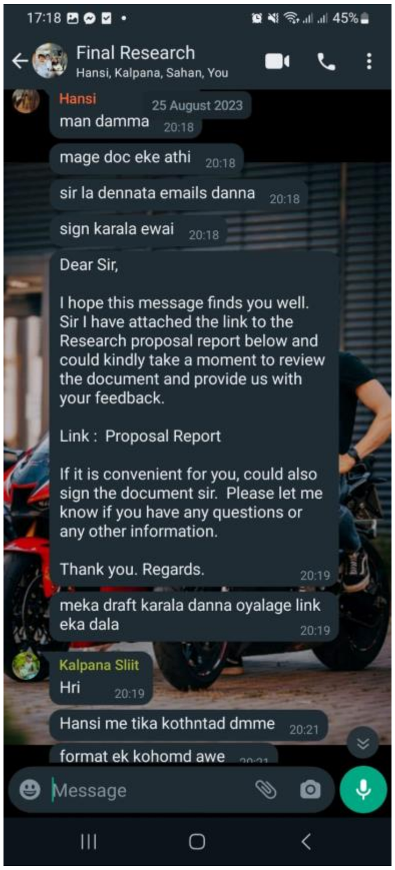
Sahan Aiyya Kadawatha
Aaa 19:29

Mn aye poddk wens kra sir kiypu tika daala 19:29

Thw poddk thiyenw 19:29

Link eka danna mai malui upload krla kiynnm 19:29

*Figure : **whatsapp chat***



Hansi
man damma 20:18

mage doc eke athi 20:18

sir la dennata emails danna 20:18

sign karala ewai 20:18

Dear Sir,

I hope this message finds you well. Sir I have attached the link to the Research proposal report below and could kindly take a moment to review the document and provide us with your feedback.

Link : Proposal Report

If it is convenient for you, could also sign the document sir. Please let me know if you have any questions or any other information.

Thank you. Regards. 20:19

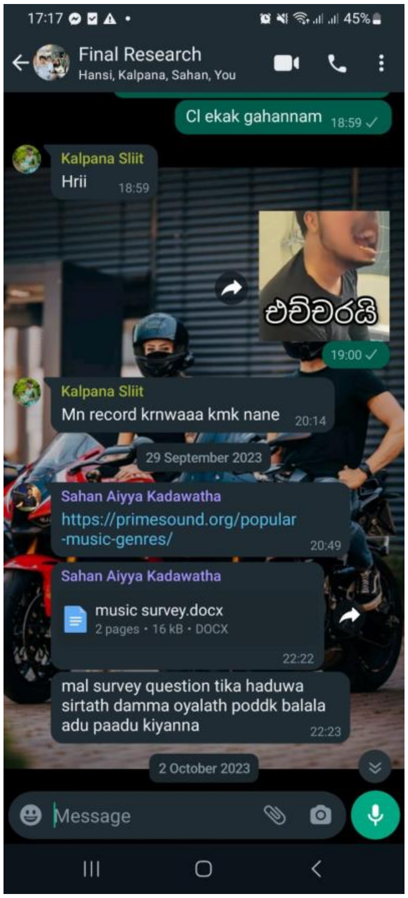
meka draft karala danna oyalage link eka dala 20:19

Kalpana Sliit
Hri 20:19

Hansi me tika kothntad dmme 20:21

format ek kohomd awe 20:21

*Figure : **whatsapp chat***



Cl ekak gahannam 18:59

Kalpana Sliit
Hrii 18:59

19:00

Kalpana Sliit
Mn record krnwaaa kmk nane 20:14

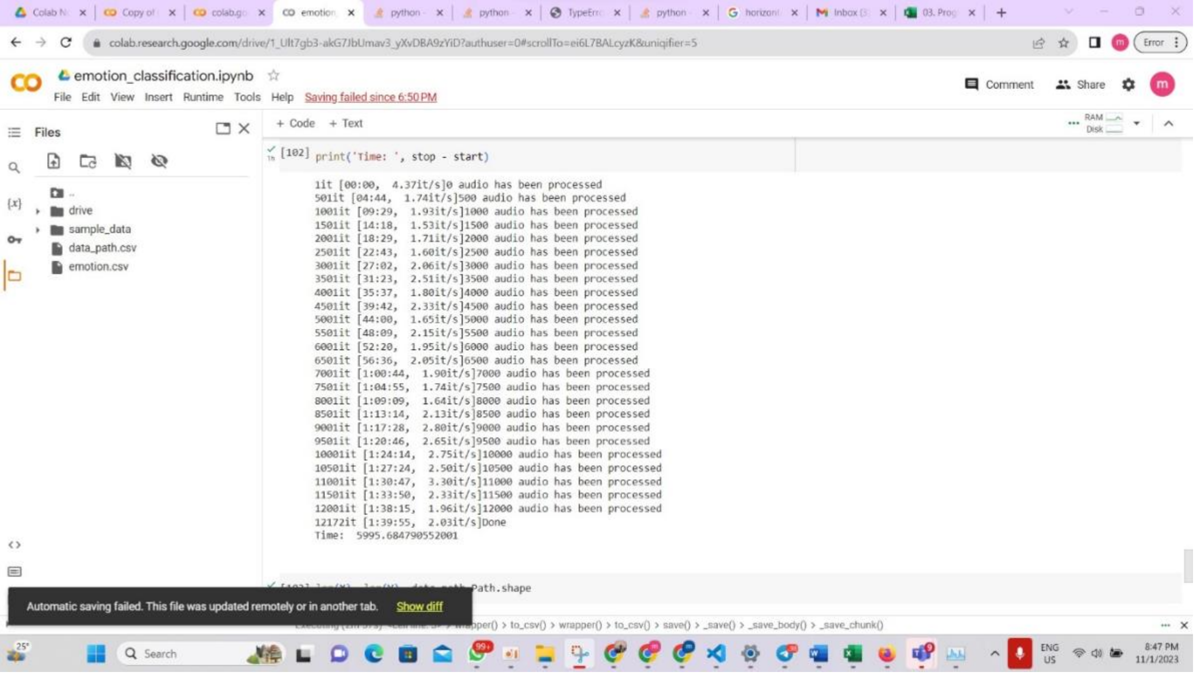
Sahan Aiyya Kadawatha
https://primesound.org/popular-music-genres/ 20:49

Sahan Aiyya Kadawatha
music survey.docx
2 pages • 16 kB • DOCX
22:22

mal survey question tika haduwa sirtath damma oyalath poddk balala adu paadu kiyanna 22:23

*Figure : **whatsapp chat***

## 2.Sample works

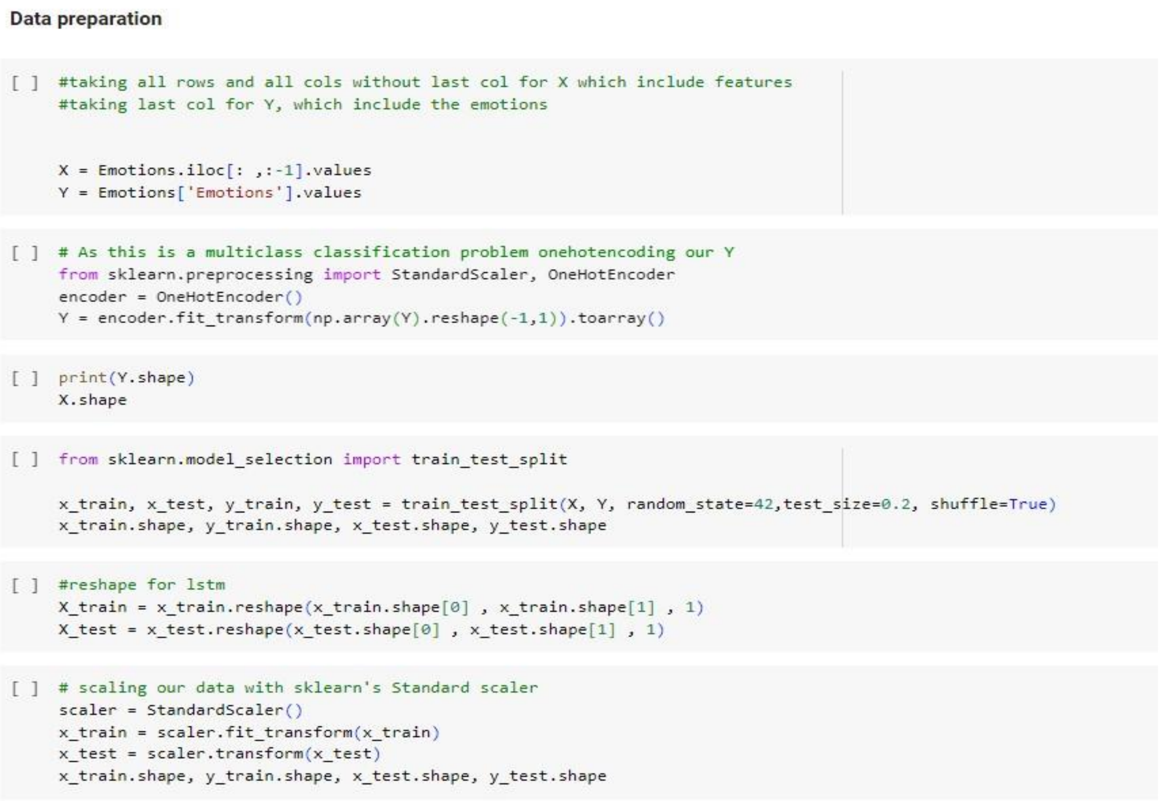

colab.research.google.com/drive/1_Ult7gb3-akG7JbUmav3_yXvDBA9zYiD?authuser=0#scrollTo=ei6L7BALcyzK8&uniqifier=5
emotion_classification.ipynb
File Edit View Insert Runtime Tools Help
Saving failed since 6:50 PM
Comment
Share
Files
+ Code
+ Text
drive
sample_data
data_path.csv
emotion.csv

```
[102] print('Time: ', stop - start)

1it [00:00,  4.37it/s]0 audio has been processed
501it [04:44,  1.74it/s]500 audio has been processed
1001it [09:29,  1.93it/s]1000 audio has been processed
1501it [14:18,  1.53it/s]1500 audio has been processed
2001it [18:29,  1.71it/s]2000 audio has been processed
2501it [22:43,  1.60it/s]2500 audio has been processed
3001it [27:02,  2.06it/s]3000 audio has been processed
3501it [31:23,  2.51it/s]3500 audio has been processed
4001it [35:37,  1.80it/s]4000 audio has been processed
4501it [39:42,  2.33it/s]4500 audio has been processed
5001it [44:00,  1.65it/s]5000 audio has been processed
5501it [48:09,  2.15it/s]5500 audio has been processed
6001it [52:20,  1.95it/s]6000 audio has been processed
6501it [56:36,  2.05it/s]6500 audio has been processed
7001it [1:00:44,  1.90it/s]7000 audio has been processed
7501it [1:04:55,  1.74it/s]7500 audio has been processed
8001it [1:09:09,  1.64it/s]8000 audio has been processed
8501it [1:13:14,  2.13it/s]8500 audio has been processed
9001it [1:17:28,  2.80it/s]9000 audio has been processed
9501it [1:20:46,  2.65it/s]9500 audio has been processed
10001it [1:24:14,  2.75it/s]10000 audio has been processed
10501it [1:27:24,  2.50it/s]10500 audio has been processed
11001it [1:30:47,  3.30it/s]11000 audio has been processed
11501it [1:33:50,  2.33it/s]11500 audio has been processed
12001it [1:38:15,  1.96it/s]12000 audio has been processed
12172it [1:39:55,  2.03it/s]Done
Time:  5995.684790552001
```

Automatic saving failed. This file was updated remotely or in another tab. Show diff

wrapper() > to_csv() > wrapper() > to_csv() > save() > _save() > _save_body() > _save_chunk()
Search
ENG
US
8:47 PM
11/1/2023



**Data preparation**

```
[ ]  #taking all rows and all cols without last col for X which include features
     #taking last col for Y, which include the emotions


     X = Emotions.iloc[: ,:-1].values
     Y = Emotions['Emotions'].values
```

```
[ ]  # As this is a multiclass classification problem onehotencoding our Y
     from sklearn.preprocessing import StandardScaler, OneHotEncoder
     encoder = OneHotEncoder()
     Y = encoder.fit_transform(np.array(Y).reshape(-1,1)).toarray()
```

```
[ ]  print(Y.shape)
     X.shape
```

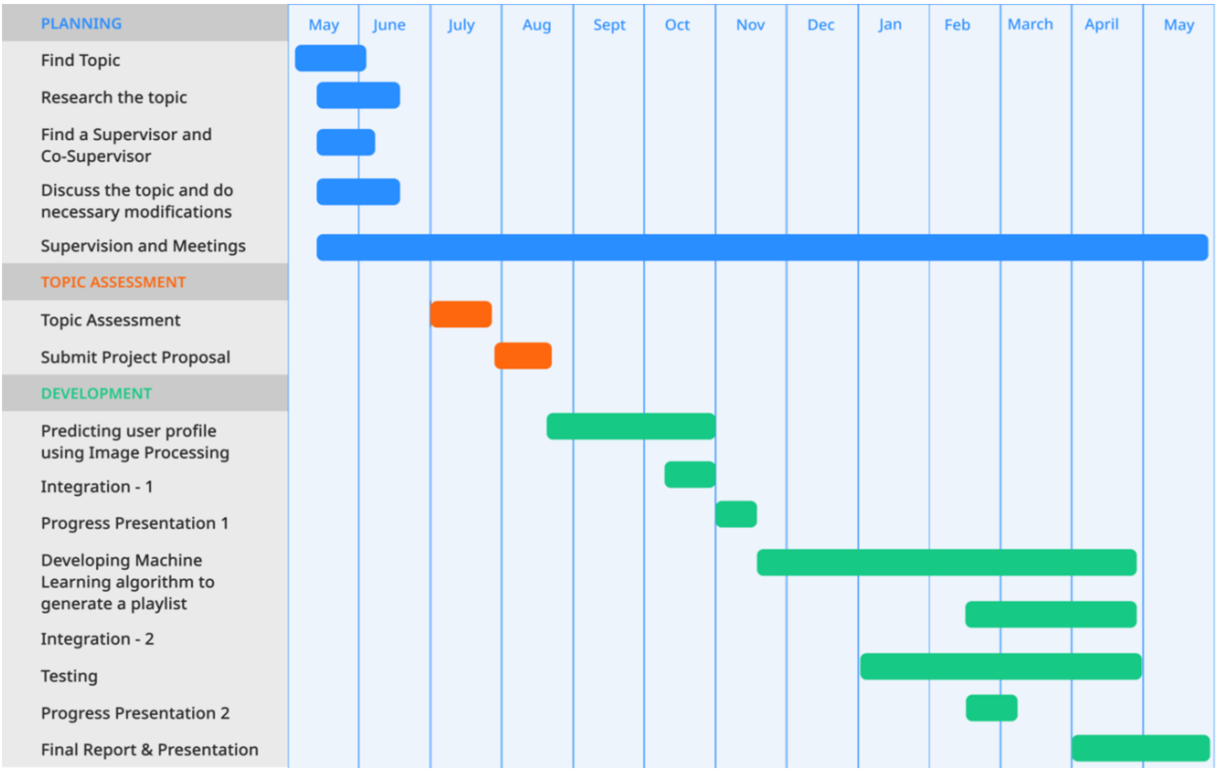
```
[ ]  from sklearn.model_selection import train_test_split

     x_train, x_test, y_train, y_test = train_test_split(X, Y, random_state=42,test_size=0.2, shuffle=True)
     x_train.shape, y_train.shape, x_test.shape, y_test.shape
```

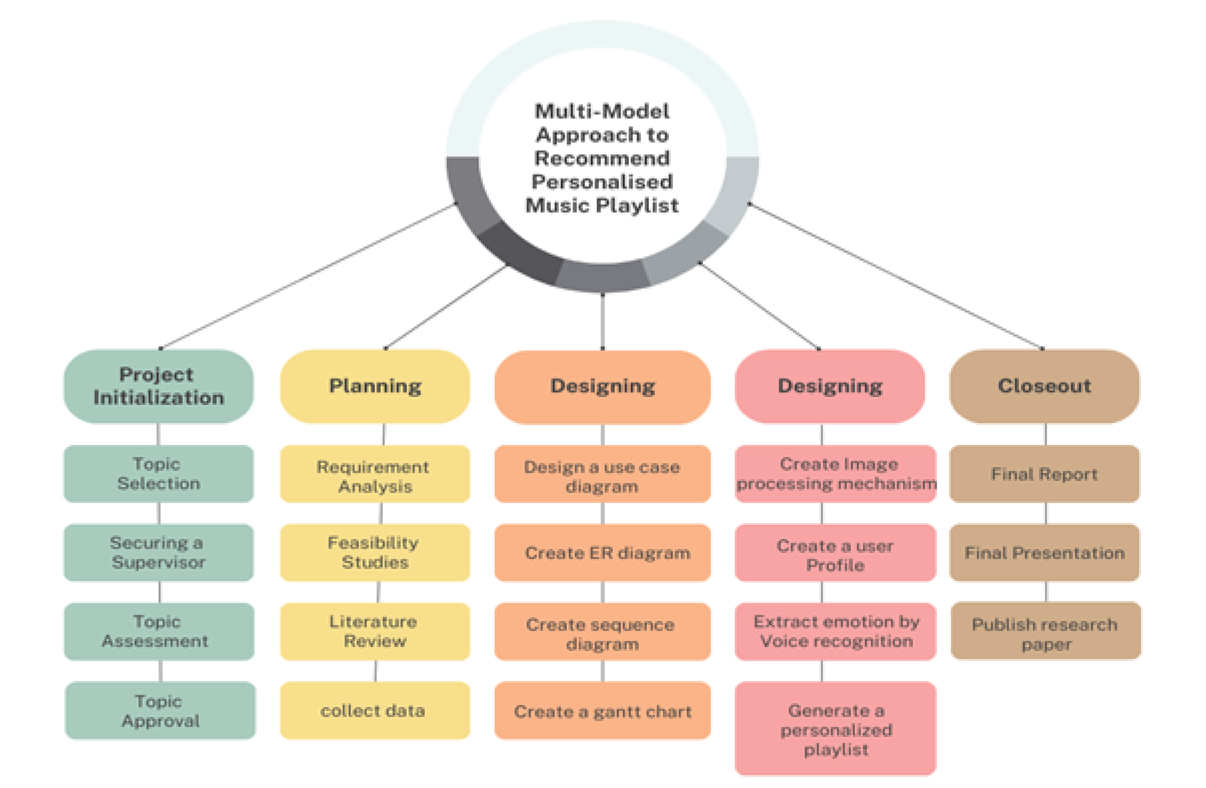
```
[ ]  #reshape for lstm
     X_train = x_train.reshape(x_train.shape[0] , x_train.shape[1] , 1)
     X_test = x_test.reshape(x_test.shape[0] , x_test.shape[1] , 1)
```

```
[ ]  # scaling our data with sklearn's Standard scaler
     scaler = StandardScaler()
     x_train = scaler.fit_transform(x_train)
     x_test = scaler.transform(x_test)
     x_train.shape, y_train.shape, x_test.shape, y_test.shape
```

## 3.Grantt chart



## Work breakdown chart


Multi-Model Approach to Recommend Personalised Music Playlist
Project Initialization
Topic Selection
Securing a Supervisor
Topic Assessment
Topic Approval
Planning
Requirement Analysis
Feasibility Studies
Literature Review
collect data
Designing
Design a use case diagram
Create ER diagram
Create sequence diagram
Create a gantt chart
Designing
Create Image processing mechanism
Create a user Profile
Extract emotion by Voice recognition
Generate a personalized playlist
Closeout
Final Report
Final Presentation
Publish research paper