Project Report

On

EMUSIFY

Submitted by

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RK Valley, Kadapa (Dist), Andhra Pradesh, 516330

CERTIFICATE

This is to certify that the project work titled "**EMUSIFY**" submitted by Syed Fazia (R170691) , Shaik Sana Sulthana(R170741),Karanam Likitha(R170744),M Anitha(R170819) in partial fulfillment of the requirements of the award of Bachelor of Technology in Computer Science and Engineering is a bonafide work carried out by them under the supervision and guidance.

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N SATYANANDARAM
Lecturer of CSE Department
Head of the Department
Computer Science and Engineering
RGUKT R.K.Valley

Submitted for the practical examination held on ....

Internal Examiner

External Examiner

DECLARATION

We, Syed Fazia (R170691) , Shaik Sana Sulthana (R170741) , Karanam Likhitha (R170744),M Anitha (R170819) hereby declare that the project report entitled " EMUSIFY" done by us under the guidance of P Udaya Sree ,Assistant Professor,Department of CSE is submitted in partial fulfillment for the degree of the Bachelor of Technology in Computer Science and Engineering during the academic session 2022 – 2023 at RGUKT R.K.Valley. We also declare that this project is a result of our own effort and has not been copied or imitated from any source. Citations from any websites are mentioned in the references. The results embodies in thisproject report haven't been submitted to any other university or institute for the award of any degree or diploma

ACKNOWLEDGEMENT

We would to express our sincere gratitude to P Udaya Sree **,** Assistant Professor Department of CSE our project Supervisor for valuable and keen interest throughout the progress of our project.

We are grateful to Sir **N Satyanandram**, Head of the Department CSE for providing congenial atmosphere for progressing with our project. We extend our sincere gratitude to the department of Computer Science and Engineering. My sincere thanks to all who have supported me to gain knowledge about actual working involved in various technologies.

Abstract

We are worked on a project entitled EMUSIFY . It is just a Mood based Recommandation System Based on mood it suggest the music ,books,movies .

Music is the form of art known to have a greater connection with a person's emotion. It has got a unique ability to lift up one's mood. If a user receives a recommendation based on his preference, it will also improve his listing experience. Music recommendations have existed for a long time. Still, in most scenarios, the recommendation is decided after learning the user preferences over time, like looking at their past song preferences, the amount of time they listen to the music, etc. This paper suggests a neural network-based approach to song recommendation where their facial expressions detect a person's mood. This approach is more efficient than the existing ones and eases users' work of first searching and creating a specific playlist. Facial expressions play a crucial role in detecting a person's mood. A webcam or camera is used to picture a face, and input is extracted from that picture. This input is also used for determining an individual's mood.

Contents

1.Introduction

1.1 Description:

Music listeners have a tough time creating and segregating the play-list manually when they have hundreds of songs. It is also difficult to keep track of all the songs, sometimes songs that are added and never used, wasting a lot of device memory and forcing the user to find and delete songs manually. Users have to manually select songs every time based on interest and mood. Users also have difficulty to re-organize and play music when play-style varies.

Currently in existing application, music is organized using manual list, and songs cannot be modified or altered in one click. Users have to manually change or update each song in their play-list every time. The sequence of songs in a play-list might not be the same every time, and songs that a user wants to listen frequently might not be given priority or might be left out from the list. Currently, there are no applications that allows users to play.

1.2 Purpose:

Emotion based music player using deep face(facial attribute analysis) requires the application to take a picture and analyze the facial expressions, it then detects the emotion and generates a playlist. It also displays the mood of the person along with the picture. It displays the playlist of songs. The user needs to select a song from that list and play it. The user can avail the functionality of volume controls.

1.3 Scope:

This project doesn’t give the user to create a new playlist every time he/she doesn’t like the songs.
It doesn’t keep the track record of the songs being played by the users. Keeping a track record helps determine the songs being played the most.
This further could be helpful in creating Machine Learning based automatic playlists.
It allows the user to play a song from a pre-determined playlist. The user could change the song but can’t edit the current playlist.

2. Literature Review

A literature survey or a literature review in a project report is that section which shows the various analyses and research made in the field of your interest and the results already published, taking into account the various parameters of the project and the extent of the project.

It is the most important part of your report as it gives you a direction in the area of your research. It helps you set a goal for your analysis - thus giving you your problem statement.

Literature survey is something when you look at a literature (publications) in a surface level, or an Ariel view. It incorporates the study of place people and productions are setting of research.

It is phase where the analyst tries to know about what is all the literature related with one range of interest. Also, the relevant literature works are short-listed. Moreover, literature survey guides or helps the researcher to define/find out/identify a problem.

2.1 INTRODUCTION

The main purpose of the literature review work was to survey previous studies on knowledge sharing and intranets. In this, we look into the details about the existing system and try to reduce the disadvantages of the existing system. We try to improve the performance and the efficiency of the new proposed system and also learn the advantages of proposed system.

2.2 EXISTING SYSTEM

Music plays a very important role in enhancing an individual‘s life as it is an important medium of entertainment for music lovers and listeners and sometimes even imparts a therapeutic approach. Listening to music has to be in a facilitated way, that the player will be able to play the song in accordance to the person’s mood.

The existing system has a system for emotion recognition that is capable of detecting the user emotions and plays a song that can improve the user’s mood.

Implementation of the existing recommender system is performed using Viola-Jonse algorithm , Point detection algorithm , Support vector machine algorithm , Principal Component Analysis (PCA) and other techniques. The existing system uses these algorithms and plays a song for the user.

2.2.1 DISADVANTAGES

There are few disadvantages identified in the existing system and are defined below:

The existing system has a low accuracy in face detection.
The existing system doesn’t produce a list of songs for the user to select from.
It doesn’t suggest a list of movies based on the mood detected.
It doesn’t give a list of books to read based on the mood detected.

2.3 PROPOSED SYSTEM

The proposed system uses OpenCV to capture a picture of the user and then using DeepFace-Facial Attribute Analysis it recognizes the mood of the user. The proposed system can recognise moods like happy,sad, angry, surprise and fear.The proposed system also generates a playlist of songs , suggests list of movies, list of bookssuggestions according to the mood detected. The user can browse the playlist from which a song can be selected to play. The user can also change the song , pause the song and perform other operations.

2.3.1 ADVANTAGES

There are advantages in the proposed system which could overcome the drawbacks of the existing system and are defined below:

● Playlist Generation.

● Better Accuracy.

● Music controls.

● List of movies

● List of books

.

3.Software Requirement Specification

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components. System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose. Analysis specifies what the system should do.

3.1 SOFTWARE REQUIREMENTS

- Operating System : Windows 10 / Linux/
- Back End Language : Python
- Front End languages: Html ,CSS, Boostrap, Javascript
- Framework : Django
- Packages: Opencv, Pillow, Deep face, Tensorflow

3.2 HARDWARE REQUIREMENTS

● Processor : 2GHZ
● RAM : 4GB
● Hard Disk : Minimum 16GB

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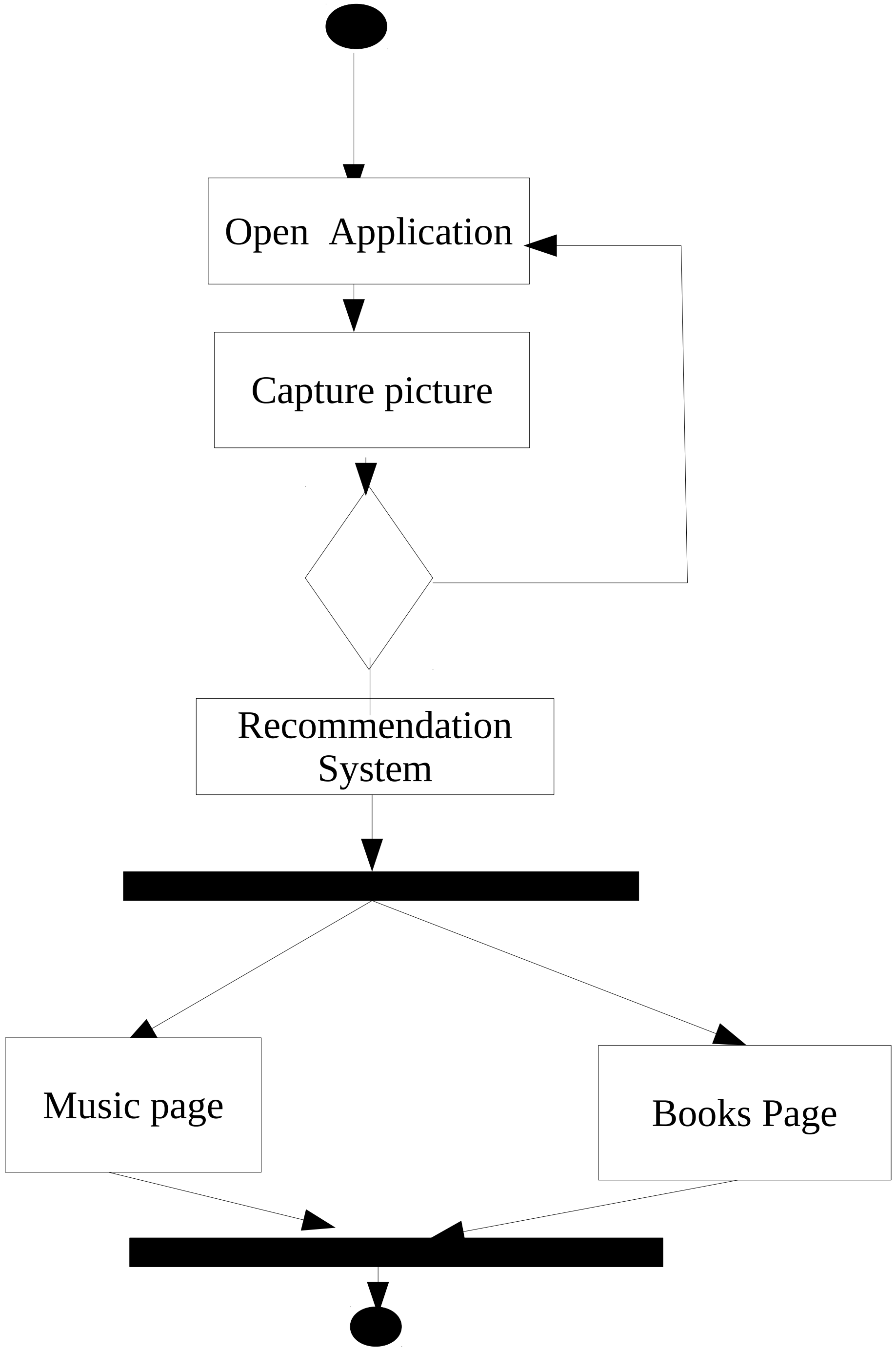
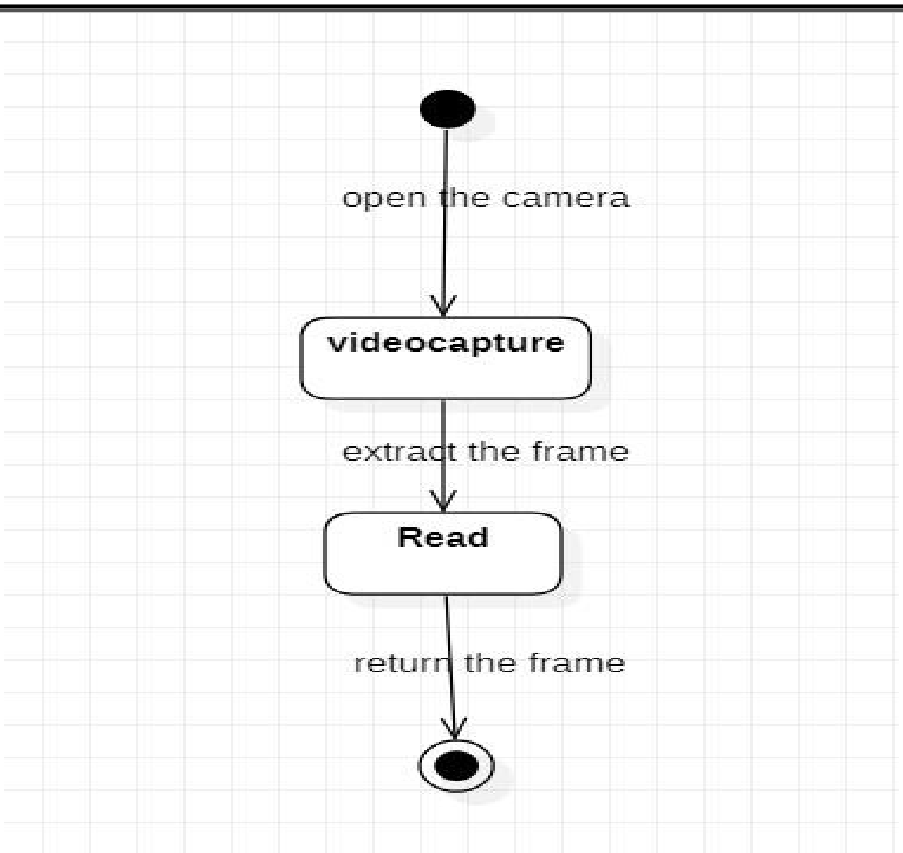
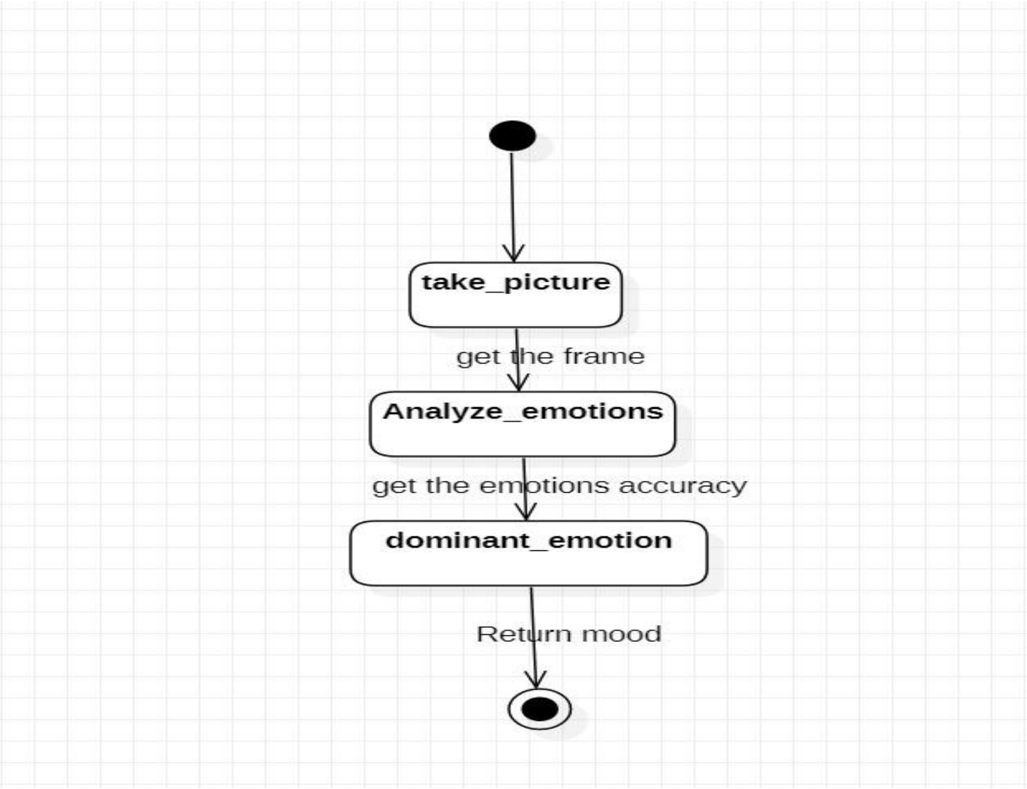
4. System Design

4.1 Activity Diagram

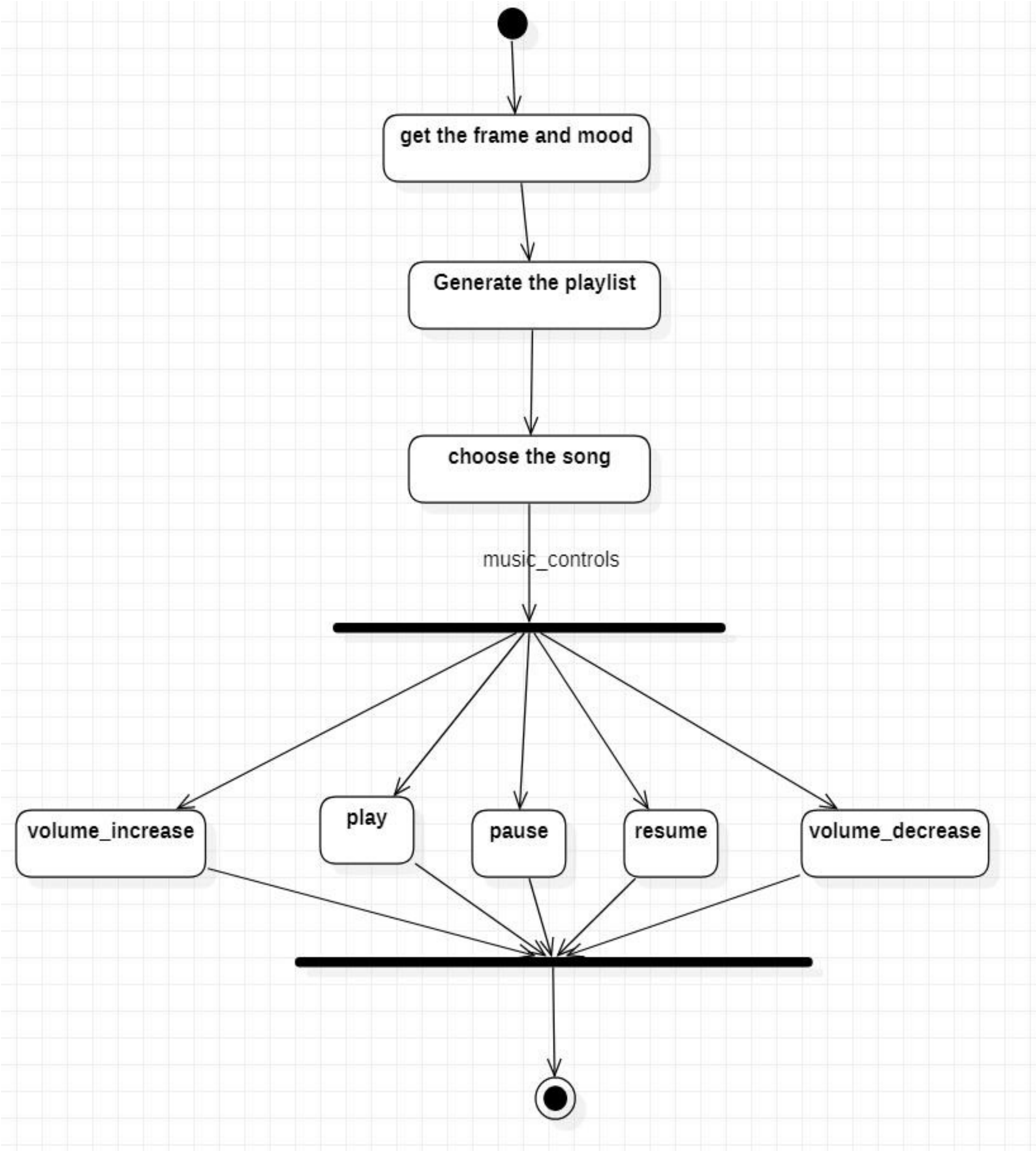




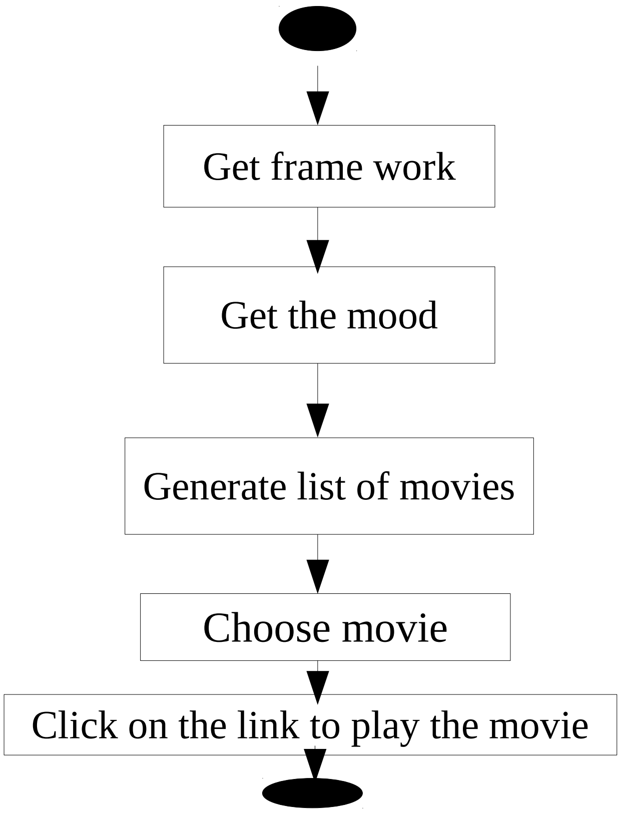
Activity Diagram for Module1(take_picture)



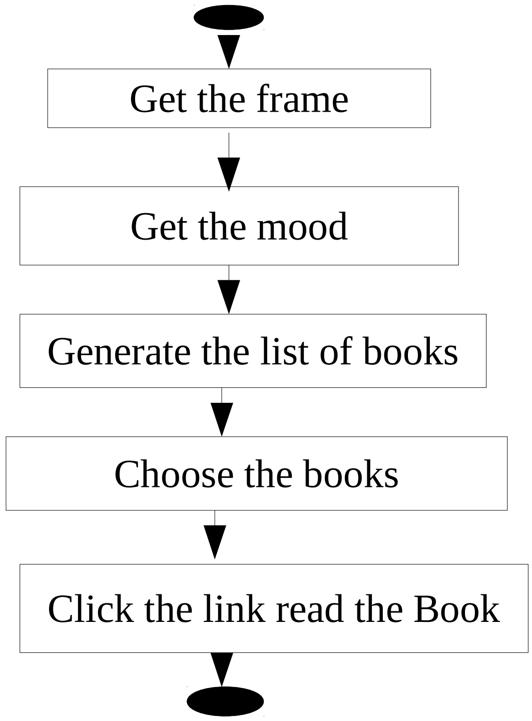
Activity Diagram for Module2 (Deepface)



Activity Diagram for Module-Music Page

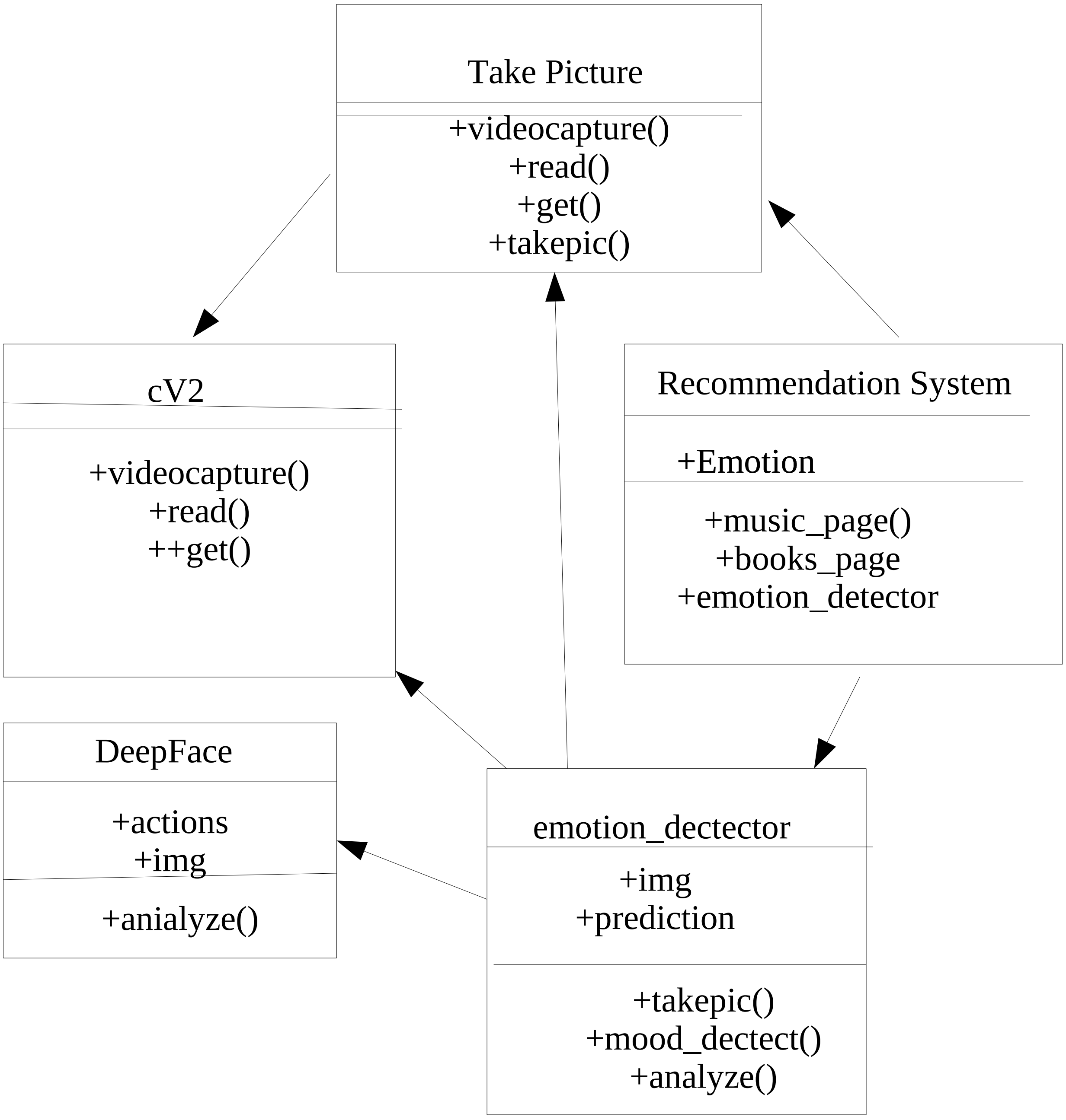


Activity Diagram for Module-Book Page



Activity Diagram for Module-Book **Page**

4.2 Class Diagram



5.Coding Or Implementation

Implementation is the stage of the project when the threoretical design is turned out into work system.Thus it can be considered to be the most critical stage in achieving a successful new system and in giving the user ,confidence that the new system will work and be affective

The implementation stage involves careful planning,investigation of the existing system and it’s constrains on implementation,designing of methods to achieve changeover and evaluation of changeover methods

Views.py

```
from django.http import *
from django.shortcuts import render
from .dp import mood_detect
from recommendationapp.models import Song,Movie,Book,Error,Contact
from django.core.paginator import Paginator
# Create your views here.
from django.shortcuts import render
global context
def index(request):
        global context
        return render(request,'index.html')
def about(request):
        return render(request,'about.html')
def contact(request):
        return render(request,'contact.html')
def cssdemo(request):
        return render(request,"cssdemo.html")
def movies(request):
        global context
        context={}
        if "movobj" not in context:
                emotion=mood_detect()
                movobj1=Movie.objects.all()
                movobj=[]
                for i in movobj1:
                        #if i.mood==context['emo']:
                        if i.mood==emotion:
                                movobj.append(i)
                        #context["movobj"]=movobj
                        context={"emo":emotion,"movobj":movobj}
                return render(request,"movies.html",context)
        def books(request):
                global context
                context={}
                if "bokobj" not in context:
                        emotion=mood_detect()
                        bokobj1=Book.objects.all()
```

```
bokobj=[]
for i in bokobj1:
#if i.mood==context['emo']:
if i.mood==emotion:
bokobj.append(i)
#context["movobj"]=movobj
context={"emo":emotion,"bokobj":bokobj}
return render(request,"book.html",context)
48def music(request):
global context
#if request.method=='POST':
if True:
emotion=mood_detect()
songobj1=Song.objects.all()
songobj=[]
for i in songobj1:
if i.mood==emotion:
songobj.append(i)
context={"emo":emotion,"songobj":songobj}
#return render(request,"music.html",context)
return render(request,"music.html",context)
def pdf(request):
global context
dict=request.POST
bks=Book.objects.all()
for i in bks:
#print(i.name,dict)
if i.name in dict:
path1=i.book_file
path1="C:/Users/praveenraj/Documents/emotion_based_recommendation_system_using_django/
EMOTION
_RECOMMENDATIO_SYS/media/"+str(path1)
#print(path1,"hi")
break
#print(bks)
#pdf1=open(r"C:\Users\praveenraj\Documents\emotion_based_recommendation_system_using_django\
EM
OTION_RECOMMENDATIO_SYS\media\media\books_dir\praveenresume.pdf","rb").read()
pdf1=open(path1,"rb").read()

return
HttpResponse(pdf1,content_type="application/pdf")
def Error1(request):
message=request.POST
try:
msg_obj=Error.objects.all()
msg_len=len(msg_obj)
print(message)
msg=Error(Errorid=msg_len+1,Error_desc=message["E_msg"])
msg.save()
except Exception:
msg=Error(Errorid=1,Error_desc=message)
```

```
msg.save()
print(message)
#code to store messages in Error table
return render(request,"index.html")
def contact(request):
m=request.POST
mail=Contact(name=m["name"],email=m["email"],phone_number=m["phone"],message=m["message"])
mail.save()
return render(request,"contact.html")
```

urls.py

```
from django.urls import path,include
from django.conf.urls.static import static
from recommendationapp import views
urlpatterns = [
path('', views.index ,name='index'),
path('about', views.about ,name='about'),
path('contact', views.contact,name='contact'),
path('movies',views.movies,name='movies'),
path('music',views.music,name="music"),
path('cssdemo', views.cssdemo,name='cssdemo'),
path('book',views.books,name='book'),
path('pdf',views.pdf,name='pdf'),
path('Error1',views.Error1,name="Error1")
#path('recommendationapp/', include('recommendationapp.urls')),
]
```

models.py

```
from django.db import models
# Create your models here.
class Song(models.Model):
title= models.TextField(max_length=100)
artist= models.TextField(max_length=100)
image= models.ImageField(upload_to='media/songs_images')
audio_file = models.FileField(upload_to='media/songs_dir')
audio_link = models.CharField(max_length=200,blank=True,null=True)
mood=models.TextField(max_length=10)
def __str__(self):
return self.title
50class Movie(models.Model):
name=models.TextField(max_length=150)
artists=models.TextField(max_length=400)
image=models.ImageField(upload_to="media/movie_images")
movie_link=models.URLField(max_length=2000)
mood=models.TextField(max_length=10)
def __str__(self):
return self.name
```

```
class Book(models.Model):
name=models.TextField(max_length=150)
author=models.TextField(max_length=400)        <
image=models.ImageField(upload_to="media/book_images")
book_link=models.URLField(max_length=2000)
book_file = models.FileField(upload_to='media/books_dir')
mood=models.TextField(max_length=10)
def __str__(self):
return self.name
class Error(models.Model):
Errorid=models.TextField(max_length=30,unique=True)
Error_desc=models.TextField(max_length=500)
def __str__(self):
return self.Errorid
class Contact(models.Model):
name=models.TextField(max_length=100)
email=models.EmailField(max_length=300,unique=True)
phone_number=models.IntegerField()
message=models.TextField(max_length=5000)
def __str__(self):
return self.email
```

dp.py

```
from deepface import DeepFace
import cv2
def takepic():
cap = cv2.VideoCapture(0)
#width=cap.get(cv2.CAP_PROP_FRAME_WIDTH)
#height=cap.get(cv2.CAP_PROP_FRAME_HEIGHT)
_, frame = cap.read()
return frame
def mood_detect():
img=takepic()
#img=cv2.imread(r"C:\Users\praveenraj\Downloads\livetest4.jpg")
cv2.imwrite(r"recommendationapp\static\recommendationapp\personpic.jpg",img)
try:
predictions=DeepFace.analyze(img,actions=['emotion'])
predictions=predictions['emotion']
del predictions['neutral']
del predictions['disgust']
print(predictions)
51temp1=0
for i in predictions:
if predictions[i]>temp1:
mod1=i
temp1=predictions[i]
#print(mod1)
except Exception:
mod1=None
#print(mod1,w,h)
return mod1
```

index.html

```
<!doctype html>
<html lang="en">
{% load static %}
<head>
<!-- Required meta tags -->
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<!-- Bootstrap CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
eOJMYsd53ii+scO/bJGFsiCZc+5NDVN2yr8+0RDqr0Ql0h+rP48ckxlpbzKgwra6"
crossorigin="anonymous">
<link rel="stylesheet" href="{% static 'recommendationapp/assets/css/chat.css'%}">
<link rel="stylesheet" href="{% static 'recommendationapp/ch_win_style.css'%}">
<link rel="stylesheet" href="{% static 'recommendationapp/assets/css/typing.css'%}">
<title>Hello, world!</title>
</head>
<body style="background-color: rgba(187, 177, 177, 0.63);position: relative;">
{% load static %}
<nav class="navbar navbar-expand-lg bg-dark navbar-dark">
<div class="container-fluid">
<a class="navbar-brand" href="\">PSK Developers</a>
<button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-
label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarSupportedContent">
<ul class="navbar-nav me-auto mb-2 mb-lg-0">
<li class="nav-item">
<a class="nav-link active" aria-current="page" href="\">Home</a>
</li>
<li class="nav-item">
<a class="nav-link" href="\about">About</a>
</li>
<li class="nav-item">
<a class="nav-link" href="\contact">Contact</a>
</li>
</ul>
</div>
</div>
</nav>
<div class="container" style="margin-top: 60px;margin-bottom: 60px;">
<div id="carouselExampleIndicators" class="carousel slide" data-bs-ride="carousel">
<div class="carousel-indicators">
<button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="0"
class="active" aria-current="true" aria-label="Slide 1"></button>
<button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="1" aria-
label="Slide 2"></button>
<button type="button" data-bs-target="#carouselExampleIndicators" data-bs-slide-to="2" aria-
```

```
label="Slide 3"></button>
</div>
<div class="carousel-inner">
<div class="carousel-item active">
<img src="{% static 'recommendationapp/bg-music4.jpg'%}" class="d-block w-100 " style="max-
height: 60%;" alt="...">
</div>
<div class="carousel-item">
<img src="{% static 'recommendationapp/bg-music5.jpg'%}" class="d-block w-100" style="max-
height: 60%;" alt="...">
</div>
<div class="carousel-item">
<img src="{% static 'recommendationapp/bg-music6.jpg'%}" class="d-block w-100" style="max-
height: 60%;" alt="...">
</div>
</div>
<button class="carousel-control-prev" type="button" data-bs-target="#carouselExampleIndicators"
data-bs-slide="prev">
<span class="carousel-control-prev-icon" aria-hidden="true"></span>
<span class="visually-hidden">Previous</span>
</button>
<button class="carousel-control-next" type="button" data-bs-target="#carouselExampleIndicators"
data-bs-slide="next">
<span class="carousel-control-next-icon" aria-hidden="true"></span>
<span class="visually-hidden">Next</span>
</button>
</div>
</div>
<!--<div class="label">{{emo}}</div>-->
<div style="text-align: center;
background-color: orange ;
width:100%;height: auto;">
<h1 style="font-weight:bold ;margin-top: 50px;margin-bottom:0px;">Click here to Generate Playlist</h1>
<hr style="width: 100%;color:black; height: 3px;size: 4;" >
<form action="\music" method="POST">
{% csrf_token %}
<button type="submit" style="margin-bottom:60px;
background-image: url('/static/recommendationapp/facedetectbg.png') ;
width: 400px;height:400px;
background-size:contain;background-repeat: no-repeat;
border-radius: 5%;">
</button>
</form >
</div>
<div class="container">
<div class="chatbox">
<div class="chatbox__support">
<div class="chatbox__header">
<div class="chatbox__image--header">
<img src="{% static 'recommendationapp/images/image.png'%}" alt="image">
</div>
<div class="chatbox__content--header">
```

```
<img src="{% static 'recommendationapp/images/image.png'%}" alt="image">
</div>
<div class="chatbox__content--header">
<h4 class="chatbox__heading--header">Error reporting</h4>
</div>
</div>
<div class="chatbox__footer">
<form action="\Error1" method="POST">
{% csrf_token %}
<!--<img src="{% static 'recommendationapp/images/icons/emojis.svg'%}" alt="">-->
<!--<img src="{% static 'recommendationapp/images/icons/microphone.svg'%}" alt="">-->
<input type="text" name="E_msg" placeholder="Write a message...">
<input type="submit" class="send" value="Send"/>
<!-- <img src="{% static 'recommendationapp/images/icons/attachment.svg'%}" alt="">-->
</form>
</div>
</div>
<div class="chatbox__button">
<button>chat</button>
</div>
<script src="{% static 'recommendationapp/assets/js/Chat.js'%}"></script>
<script src="{% static 'recommendationapp/chat_app.js'%}"></script>
</div>
</div>
<footer>
<!-- Copyright -->
<div class="text-center p-3" style="background-color: rgba(0, 0, 0, 0.2);">
© 2021 Copyright | All Rights Reserved by PSK Developers</h4>
</div>
<!-- Copyright -->
</footer>
<!-- Footer -->
<!-- Optional JavaScript; choose one of the two! -->
<!-- Option 1: Bootstrap Bundle with Popper -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
JEW9xMcG8R+pH31jmWH6WWP0WintQrMb4s7ZOdauHnUtxwoG2vI5DkLtS3qm9Ekf"
crossorigin="anonymous"></script>
<!-- Option 2: Separate Popper and Bootstrap JS -->
<!--
<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.1/dist/umd/popper.min.js"
54integrity="sha384-
SR1sx49pcuLnqZUnnPwx6FCym0wLsk5JZuNx2bPPENzswTNFaQU1RDvt3wT4gWFG"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/js/bootstrap.min.js"
integrity="sha384-j0CNLUeiqtyaRmlzUHCPZ+Gy5fQu0dQ6eZ/
xAww941Ai1SxSY+0EQqNXNE6DZiVc"
crossorigin="anonymous"></script>
-->
</body>
</html>
```

music.html

```
<!doctype html>
<html lang="en">
<head>
{% load static %}
<!-- Required meta tags -->
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<!-- Bootstrap CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
eOJMYsd53ii+scO/bJGFsiCZc+5NDVN2yr8+0RDqr0Ql0h+rP48ckxlpbzKgwra6"
crossorigin="anonymous">
<title>Hello, world!</title>
</head>
<body style="background-color:black">
<nav class="navbar navbar-expand-lg bg-dark navbar-dark">
<div class="container-fluid">
<!--<a class="navbar-brand" href="\">PSK Developers</a>-->
<button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-
label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarSupportedContent">
<ul class="navbar-nav me-auto mb-2 mb-lg-0">
<li class="nav-item">
<a class="nav-link active" aria-current="page" href="\"><i class="bi bi-arrow-left-circle"><svg
xmlns="http://www.w3.org/2000/svg" width="16" height="16" fill="currentColor" class="bi bi-arrow-left-
circle-fill" viewBox="0 0 16 16">
<path d="M8 0a8 8 0 1 0 0 16A8 8 0 0 0 8 0zm3.5 7.5a.5.5 0 0 1 0 1H5.707l2.147 2.146a.5.5 0 0
1-.708.708l-3-3a.5.5 0 0 1 0-.708l3-3a.5.5 0 1 1 .708.708L5.707 7.5H11.5z"/>
</svg></i></a>
</li>
<li class="nav-item">
<a class="nav-link active" id="music" href="\music">Music</a>
</li>
<li class="nav-item">
55<a class="nav-link" id="Movies" href="\movies">Movies</a>
</li>
<li class="nav-item">
<a class="nav-link" id="Books" href="\book">Books</a>
</li>
</ul>
</div>
</div>
</div>
</nav>
{% if emo %}
<div style="background-color: rgb(27, 27, 32);padding: 1rem;">
<div class="text">
<p style="font-size: 1.5rem;">
```

```
<strong style="color: blueviolet;">Emotion of User :</strong><strong style="color:
dodgerblue;">{{emo}}</strong>
</p>
</div>
<div style="text-align: center;">
<img src="/static/recommendationapp/personpic.jpg" style="border-radius: 50%;height: 12rem;width:
12rem;
border-color: blueviolet;
border-style:outset;
border-width: 0.6rem;">
</div></div>
<!--<div><hr style="color: white;"></div>-->
<!--<div class="label">{{emo}}</div>-->
<div style="display:flex; flex-wrap: wrap; padding-top: 1rem;">
{% for i in songobj %}
<div class="card" style="width: 18rem; border-radius: 1rem ;padding: 1.5rem 1rem 1.5rem
1rem;background-color:slateblue;margin: 10px 10px 10px 10px;">
<img src="/media/{{i.image}}" class="card-img-top" alt="..." style="height: 50%;">
<div class="card-body">
<h5 class="card-title">{{i.title}}-{{i.artist}}</h5>
</div>
<!-- <a href="#" class="card-link" style="text-decoration: none;"><button class="btn btn-outline-
danger">Play Song</button></a>-->
<audio controls style="display:inline-block; width: 250px; border-style: none;"
src="/media/{{i.audio_file}}" type="/audio/mp3">
</audio>
<!--<embed src="/media/{{i.audio_file}}" type="mp3/audio" controls>-->
</div>
{%endfor%}
</div>
{% else %}
<div class="text">
<p style="font-size: 1.5rem;">
<strong style="color: blueviolet;">Emotion of User :</strong><strong style="color: dodgerblue;">Face
Not Detected</strong>
</p>
</div>
{%endif%}
<hr style="color:white;">
<!-- MUsic Player -->
<!-- end music player-->
<footer>
<!-- Copyright -->
<div class="text-center p-3" style="background-color: black; color: blue;">
© 2021 Copyright | All Rights Reserved by PSK Developers</h4>
</div>
<!-- Copyright -->
</footer>
<!-- Footer -->
<!-- Optional JavaScript; choose one of the two! -->
<!-- Option 1: Bootstrap Bundle with Popper -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
```

books.html

```
<!doctype html>
<html lang="en">
<head>
{% load static %}
<!-- Required meta tags -->
<meta charset="utf-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<!-- Bootstrap CSS -->
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/css/bootstrap.min.css"
rel="stylesheet" integrity="sha384-
eOJMYsd53ii+scO/bJGFsiCZc+5NDVN2yr8+0RDqr0Ql0h+rP48ckxlpbzKgwra6"
crossorigin="anonymous">
<title>Hello, world!</title>
</head>
<body style="background-color:black">
<nav class="navbar navbar-expand-lg bg-dark navbar-dark">
<div class="container-fluid">
<!--<a class="navbar-brand" href="\">PSK Developers</a>-->
<button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-
target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-
label="Toggle navigation">
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarSupportedContent">
<ul class="navbar-nav me-auto mb-2 mb-lg-0">
<li class="nav-item">
<a class="nav-link active" aria-current="page" href="\"><i class="bi bi-arrow-left-circle"><svg
xmlns="http://www.w3.org/2000/svg" width="16" height="16" fill="currentColor" class="bi bi-arrow-left-
circle-fill" viewBox="0 0 16 16">
<path d="M8 0a8 8 0 1 0 0 16A8 8 0 0 0 8 0zm3.5 7.5a.5.5 0 0 1 0 1H5.707l2.147 2.146a.5.5 0 0
708l-3-3a.5.5 0 0 1 0-.708l3-3a.5.5 0 1 1 .708.708L5.707 7.5H11.5z"/>
</svg></i></a>
</li>
<li class="nav-item">
<a class="nav-link" id="music" href="\music">Music</a>
</li>
<li class="nav-item">
<a class="nav-link " id="Movies" href="\movies">Movies</a>
60</li>
<li class="nav-item">
<a class="nav-link active" id="Books" href="\book">Books</a>
</li>
</ul>
</div>
</div>
</nav>
{% if emo %}
<div style="background-color: rgb(27, 27, 32);padding: 1rem;">
<div class="text">
<p style="font-size: 1.5rem;">
<strong style="color: blueviolet;">Emotion of User :</strong><strong style="color:
dodgerblue;">{{emo}}</strong>
</p>
```

```
<!--<div class="label">{{emo}}</div>-->
<div style="display:flex; flex-wrap: wrap;">
<form action='\pdf' method="POST">
{% for i in bokobj %}
{% csrf_token %}
<div class="card" style="width: 18rem; height:25rem;border-radius: 1rem ;padding: 1.5rem 1rem 1.5rem
1rem;background-color:yellow;margin: 10px 10px 10px 10px;">
<img src="/media/{{i.image}}" class="card-img-top" alt="..." style="height: 50%;">
<div class="card-body">
<h5 class="card-title">{{i.name}}</h5>
</div>
<!-- <a href="#" class="card-link" style="text-decoration: none;"><button class="btn btn-outline-
danger">Play Song</button></a>-->
<button style="background-color: orangered;border-radius: 2rem;"><a href="{{i.book_link}}"
style="text-decoration: none;
color: white;">click to read</a></button>
<input type="submit" name={{i.name}} value="View">
<!--<embed src="/media/{{i.audio_file}}" type="mp3/audio" controls>-->
</div>
{%endfor%}</from>
</div>
{% else %}
<div class="text">
<p style="font-size: 1.5rem;">
<strong style="color: blueviolet;">Emotion of User :</strong><strong style="color: dodgerblue;">Face</div>
<div class="line"><hr style="color:white; size: 5px;"></div>
{%endif%}
<hr style="color:white;">
<footer>
<!-- Copyright -->
<div class="text-center p-3" style="background-color: black; color: blue;">
© 2021 Copyright | All Rights Reserved by PSK Developers</h4>
</div>
<!-- Copyright -->
</footer>
<!-- Footer -->
<!-- Optional JavaScript; choose one of the two! -->
<!-- Option 1: Bootstrap Bundle with Popper -->
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/js/bootstrap.bundle.min.js"
integrity="sha384-
JEW9xMcG8R+pH31jmWH6WWP0WintQrMb4s7ZOdauHnUtxwoG2vI5DkLtS3qm9Ekf"
crossorigin="anonymous"></script>
<!-- Option 2: Separate Popper and Bootstrap JS -->
<!--
<script src="https://cdn.jsdelivr.net/npm/@popperjs/core@2.9.1/dist/umd/popper.min.js"
integrity="sha384-
SR1sx49pcuLnqZUnnPwx6FCym0wLsk5JZuNx2bPPENzswTNFaQU1RDvt3wT4gWFG"
crossorigin="anonymous"></script>
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta3/dist/js/bootstrap.min.js"
integrity="sha384-j0CNLUeiqtyaRmlzUHCPZ+Gy5fQu0dQ6eZ/xAww941Ai1SxSY+0EQqNXNE6DZiVc"
crossorigin="anonymous"></script>
-->
</body>
</html>
```

6. Testing

Software testing is an investigation conducted to provide stakeholders with information about the quality of product or service under test. Software testing is a process used to identify the correctness, completeness and quality of developed computer software. Actually, testing can never establish the correctness of computer software, this can only be done by formal verification. It can only find defects
Why system testing is required?.
1. It is a first level software testing where the software or application is tested as whole.
2.. It is done to verify and validate the technical business functional and non-functional requirements of the software. It also include the verification and validation of software application architecture.

Testing Methods

White Box Testing (WBT) :

Entire WBT is done by developers. It is thetesting of each and every line of code in the program.Developers do WBT, sends the s/w to testing team. The testing team does black box testing and checks the s/w against requirements and finds any defects and sends it to the developer.The developers fixes the defect and does WBT and sends it to the testing team.Fixing defect means the defect is removed and the feature is working fine

Grey box testing(GBT) :

It is a mixture of both white box as well as black box testing and it is generally done by the test engineer who has knowledge of both coding and testing

Black box testing(BBT) :

It is a type of testing done by the test engineers where he/she checks if the application(s/w) is working according to the requirement specification.

Integration Testing

Integration testing is any type of software testing that seeks to verify the interfaces between components against a software design. Software components may be integrated in an iterative way or all together.Integration testing works to expose defects in the interface and interaction between integrated components.

System Testing

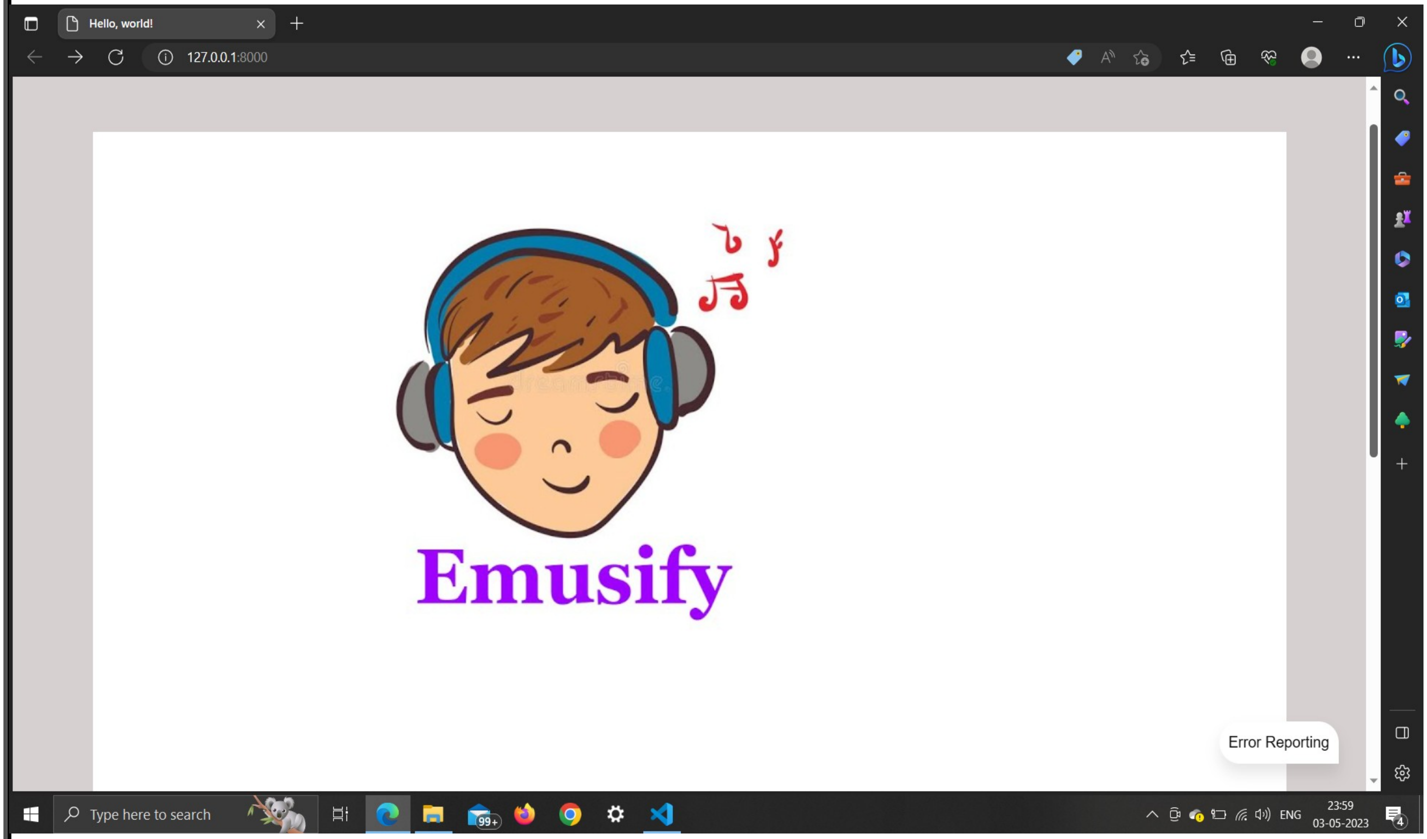
.

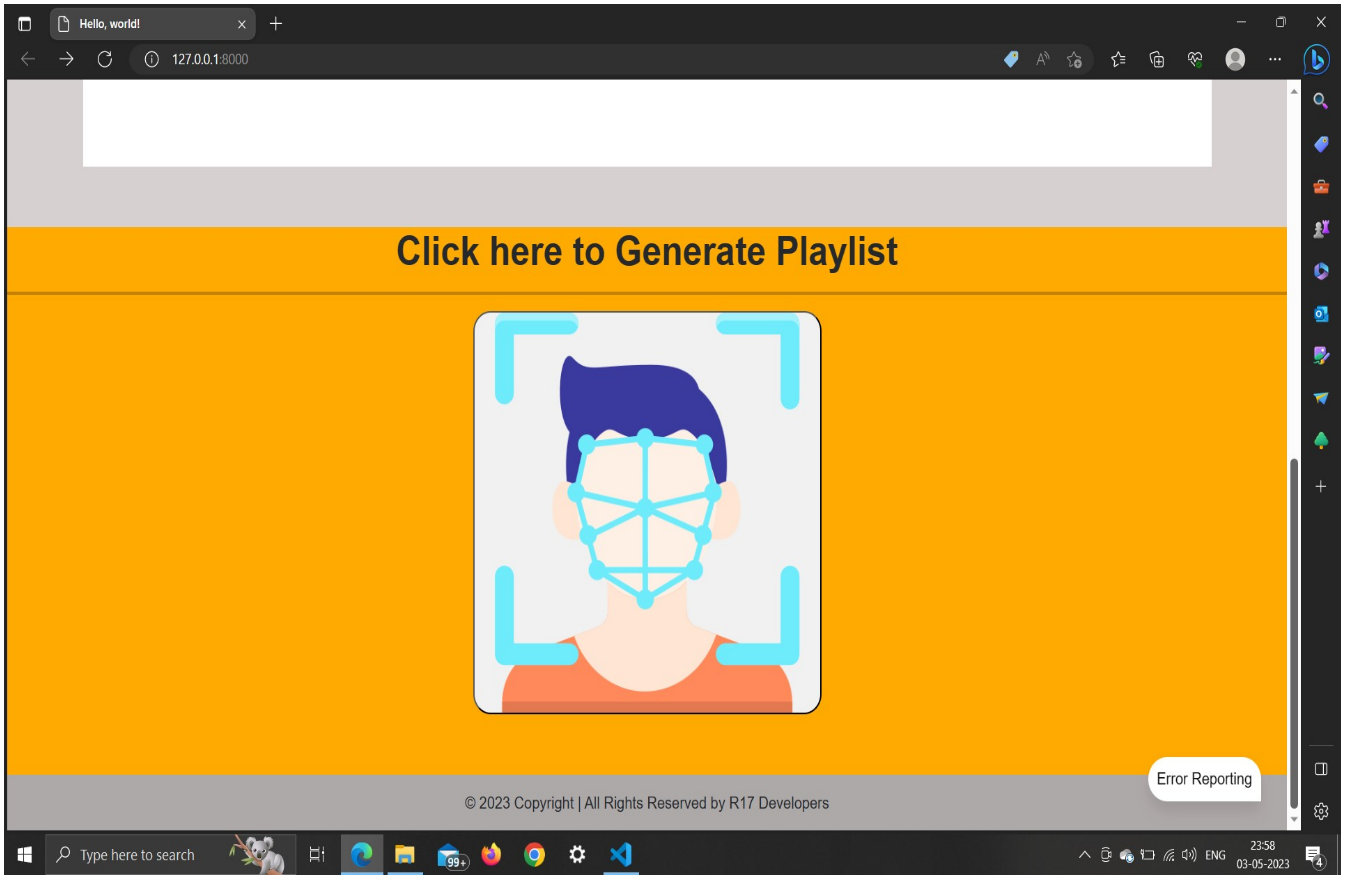
System testing tests a completely integrated system to verify that requirements.

Agile Testing

Agile testing is a software testing practice that follows the principles of Agile software development.Agile testing involves all the members of a cross functional agile team, with special expertise contributed by testers, to ensure delivering business value desired by the customer at frequent intervals.

Output





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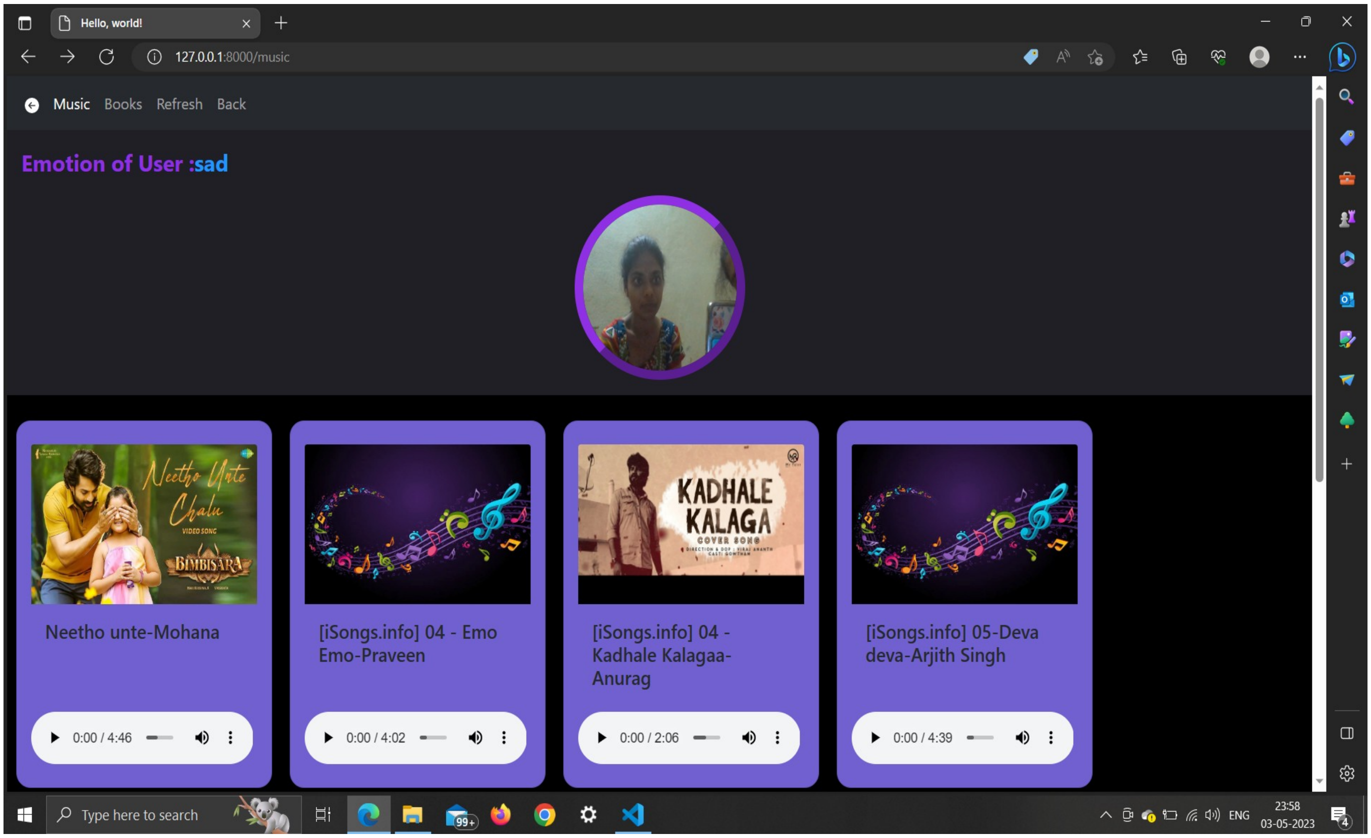


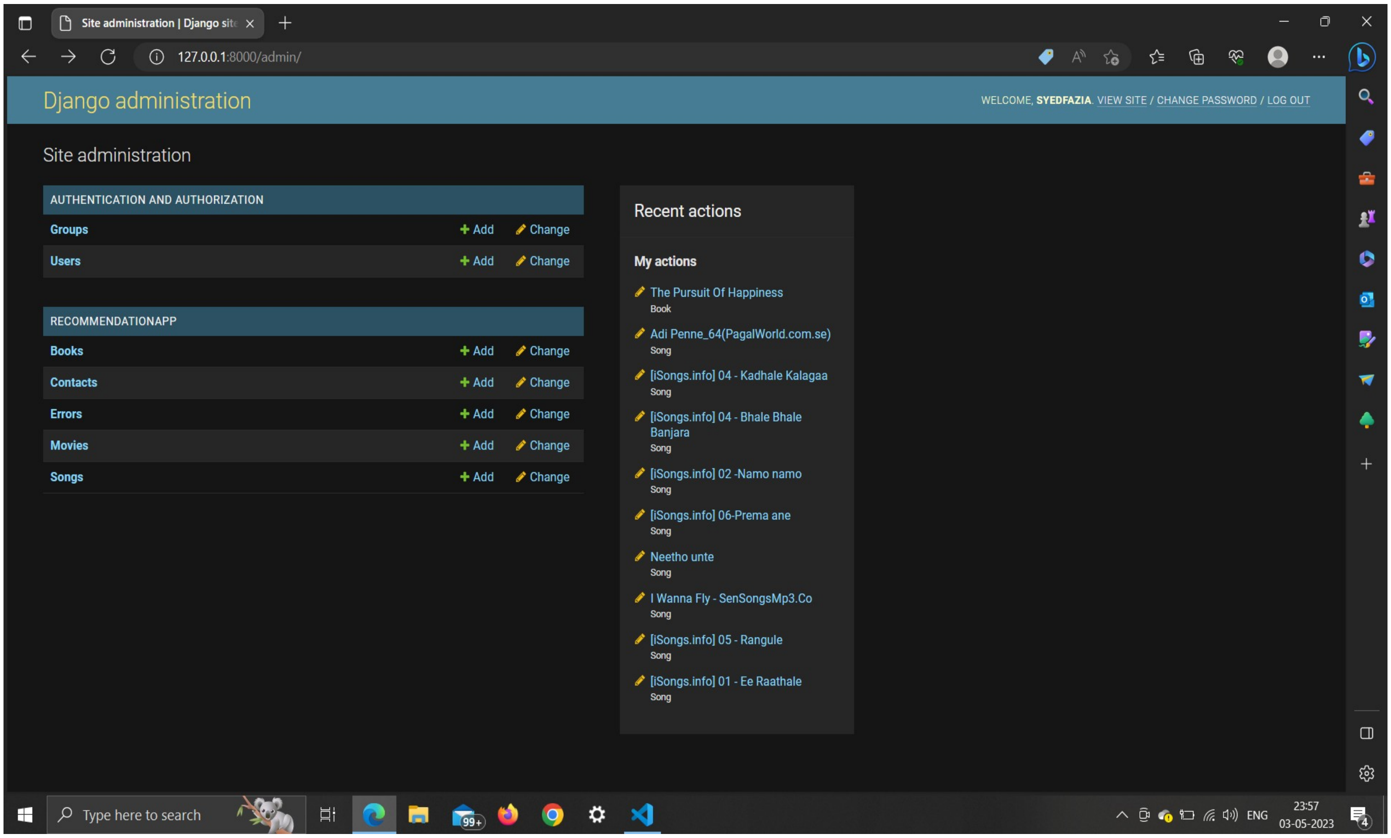
Emotion of User :sad

Neetho unte-Mohana
0:00 / 4:46

[iSongs.info] 04 - Emo Emo-Praveen
0:00 / 4:02

[iSongs.info] 04 - Kadhale Kalagaa-Anurag
0:00 / 2:06

[iSongs.info] 05-Deva deva-Arjith Singh
0:00 / 4:39



Django administration

WELCOME, SYEDFAZIA. VIEW SITE / CHANGE PASSWORD / LOG OUT

Site administration

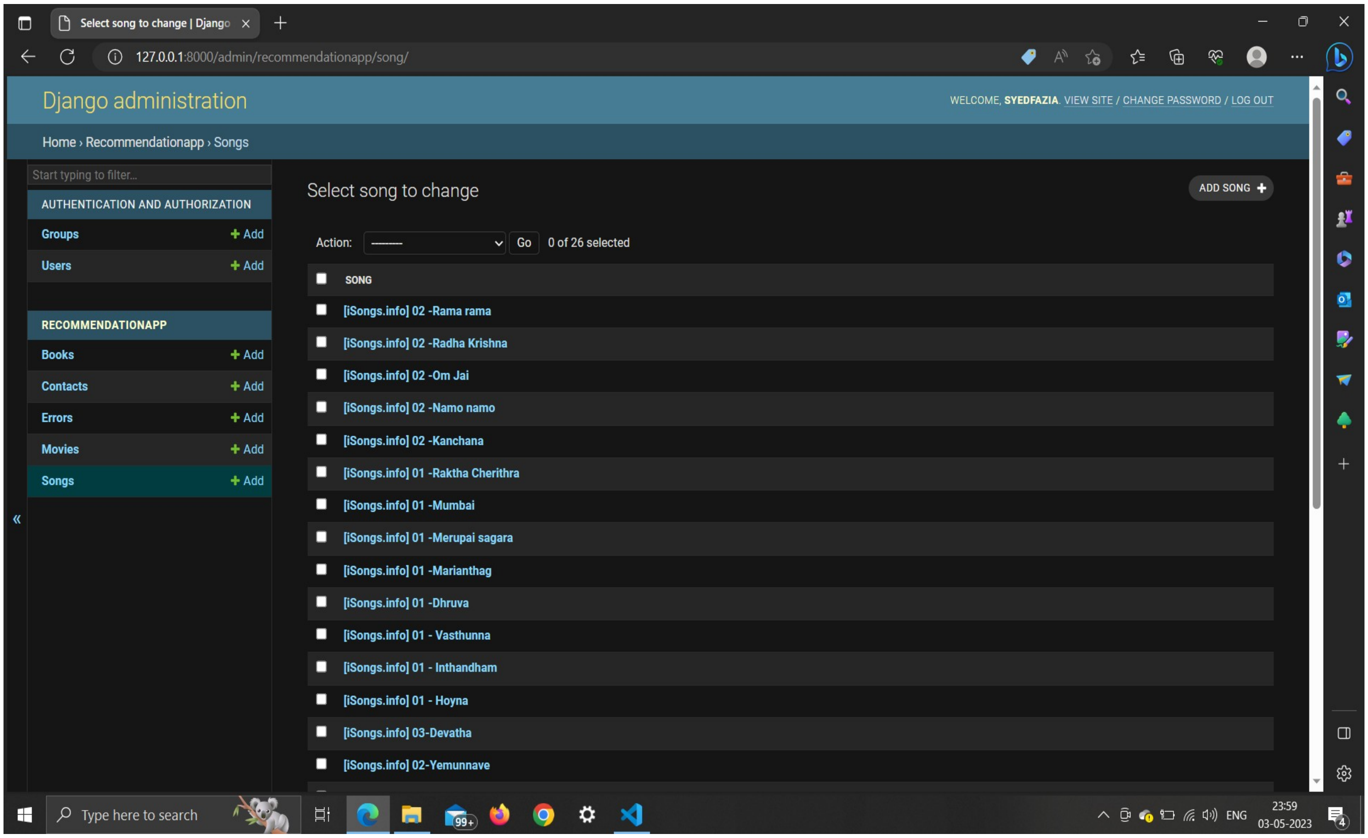
AUTHENTICATION AND AUTHORIZATION		
Groups	+ Add	Change
Users	+ Add	Change

RECOMMENDATIONAPP		
Books	+ Add	Change
Contacts	+ Add	Change
Errors	+ Add	Change
Movies	+ Add	Change
Songs	+ Add	Change

Recent actions

My actions

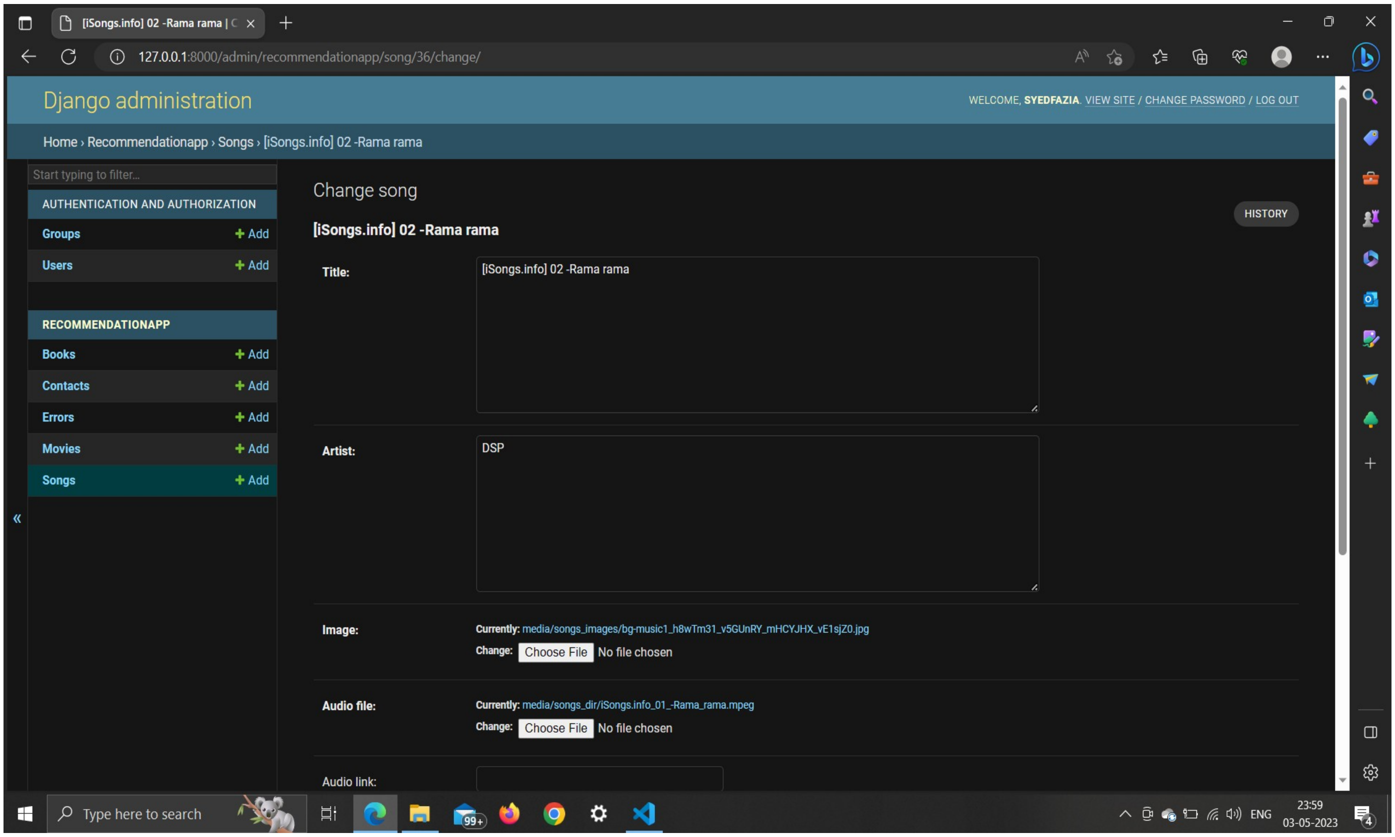
- The Pursuit Of Happiness
  Book
- Adi Penne_64(PagalWorld.com.se)
  Song
- [iSongs.info] 04 - Kadhale Kalagaa
  Song
- [iSongs.info] 04 - Bhale Bhale Banjara
  Song
- [iSongs.info] 02 -Namo namo
  Song
- [iSongs.info] 06-Prema ane
  Song
- Neetho unte
  Song
- I Wanna Fly - SenSongsMp3.Co
  Song
- [iSongs.info] 05 - Rangule
  Song
- [iSongs.info] 01 - Ee Raathale
  Song


Select song to change | Django
127.0.0.1:8000/admin/recommendationapp/song/
Django administration
WELCOME, SYEDFAZIA. VIEW SITE / CHANGE PASSWORD / LOG OUT
Home › Recommendationapp › Songs
Start typing to filter...
AUTHENTICATION AND AUTHORIZATION
Groups + Add
Users + Add
RECOMMENDATIONAPP
Books + Add
Contacts + Add
Errors + Add
Movies + Add
Songs + Add
ADD SONG +
Type here to search
ENG
23:59
03-05-2023

Select song to change

Action: --------- Go 0 of 26 selected

□	SONG
□	[iSongs.info] 02 -Rama rama
□	[iSongs.info] 02 -Radha Krishna
□	[iSongs.info] 02 -Om Jai
□	[iSongs.info] 02 -Namo namo
□	[iSongs.info] 02 -Kanchana
□	[iSongs.info] 01 -Raktha Cherithra
□	[iSongs.info] 01 -Mumbai
□	[iSongs.info] 01 -Merupai sagara
□	[iSongs.info] 01 -Marianthag
□	[iSongs.info] 01 -Dhruva
□	[iSongs.info] 01 - Vasthunna
□	[iSongs.info] 01 - Inthandham
□	[iSongs.info] 01 - Hoyna
□	[iSongs.info] 03-Devatha
□	[iSongs.info] 02-Yemunnave


[iSongs.info] 02 -Rama rama | D
127.0.0.1:8000/admin/recommendationapp/song/36/change/
Django administration
WELCOME, SYEDFAZIA. VIEW SITE / CHANGE PASSWORD / LOG OUT
Home › Recommendationapp › Songs › [iSongs.info] 02 -Rama rama
Start typing to filter...
AUTHENTICATION AND AUTHORIZATION
Groups + Add
Users + Add
RECOMMENDATIONAPP
Books + Add
Contacts + Add
Errors + Add
Movies + Add
Songs + Add
HISTORY
Type here to search
ENG
23:59
03-05-2023

Change song

[iSongs.info] 02 -Rama rama

Title: [iSongs.info] 02 -Rama rama

Artist: DSP

Image: **Currently:** media/songs_images/bg-music1_h8wTm31_v5GUnRY_mHCYJHX_vE1sjZ0.jpg
Change: Choose File No file chosen

Audio file: **Currently:** media/songs_dir/iSongs.info_01_-Rama_rama.mpeg
Change: Choose File No file chosen

Audio link:

Conclusion:

The Emotion-Based Recommendation System is used to automate and give a better exper ience for the troubling them as existing applications do.of the end-user by capturing the image using a camera, determining their emotion, and allows the user to select an option from the menu. The options being Music, Movies and Books. Upon selecting one of the three options, a list is generated based on tohe emotion detected. The user can select any song or movie or book from the list generated respectively.

Future Enhancement:

In future we can enhance following functionalities:

- It keeps track record of the songs being played by the users. Keeping a track record helps to determine the songs being played the most.
- The background will be changed as per the mood detected.
- It allows the user to edit the playlists.
- It allows used to watch short clips instead of a whole length movie.
- The book section could be further expanded into subsections like Novels, Short stories
- It allows the user to give voice based commands to run the application.

References:

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Foot Note

1.www.stackoverflow.com
2 .www.tutorialspoint.com
3 .www.geeksforgeeks.org
4 .www.javatpoint.com
5. www.djangoproject.com
6.www.python.org
7.International Journal of Advanced Computer Science and Applications (IJACSA).

End Note:

1.Team Members