EMUSIFY
Mood Recommendation System

Project Guide:P UdayaSree

Team Members:

Syed Fazia (R170691)
Shaik Sana Sulthana(R170741)
Karanam Likhitha(R170744)
M Anitha(R170819)

Introduction

- Emotions arise as a function of physiological arousal state which is both subjective and private to an individual.
- Facial expressions play an important role in detecting human emotions and current state of mind.
- Machine Learning can detect emotions by capturing facial expressions and learning what each expression means.
- Recommender systems have traditionally relied on data centric descriptors for content and user modeling.
- Various media sharing platforms are the experimental areas that are automatic machines to collect human-like characteristics.
- Humans express non-verbal and involuntary channels in many ways, mainly facial expressions.
- By calculating human facial expressions, we are going to develop an emotion-based recommendation system.

Existing System:

- 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-Jones algorithm and Principal Component Analysis (PCA) techniques. The existing system uses these algorithms and plays a song for the user.

Disadvantages

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 ,tips to read based on the mood detected.

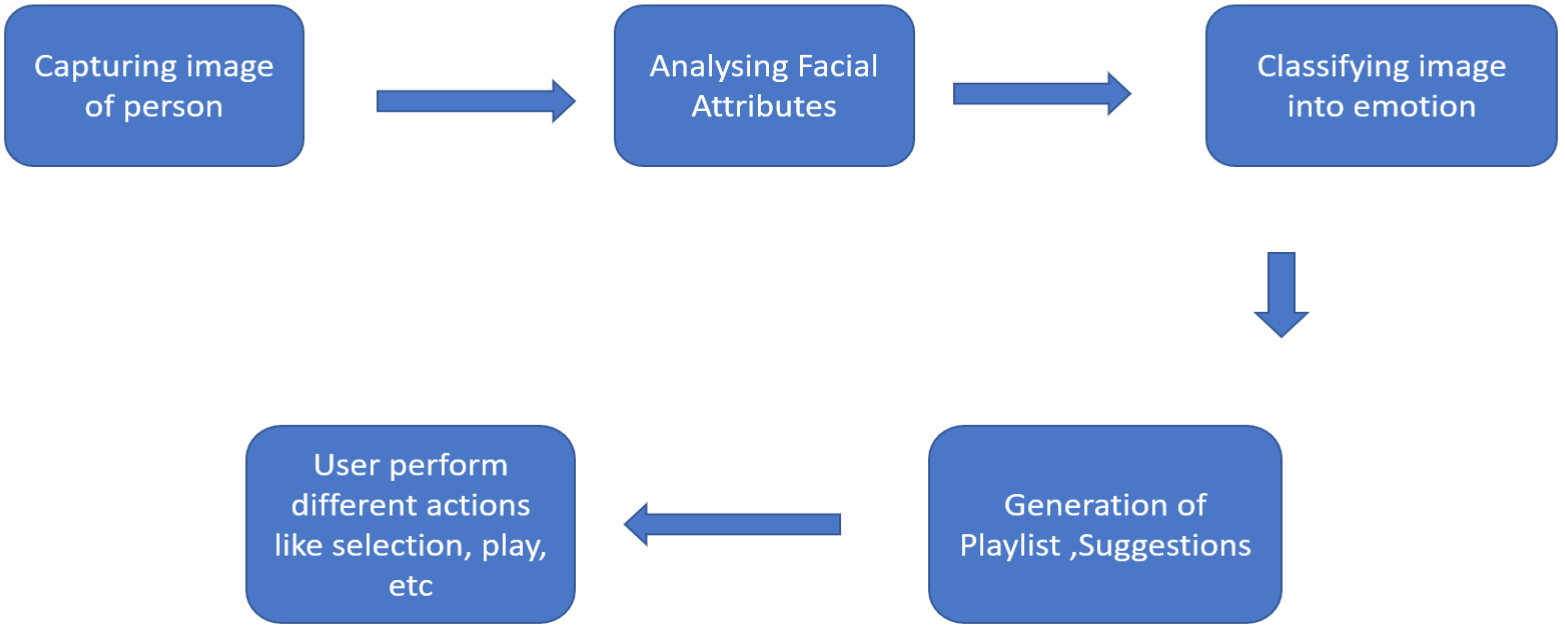
Proposed System

- 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 recognize moods like happy, sad, angry, surprise and fear.
- The proposed system also generates a playlist of songs , suggests list of movies, list of book suggestions 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

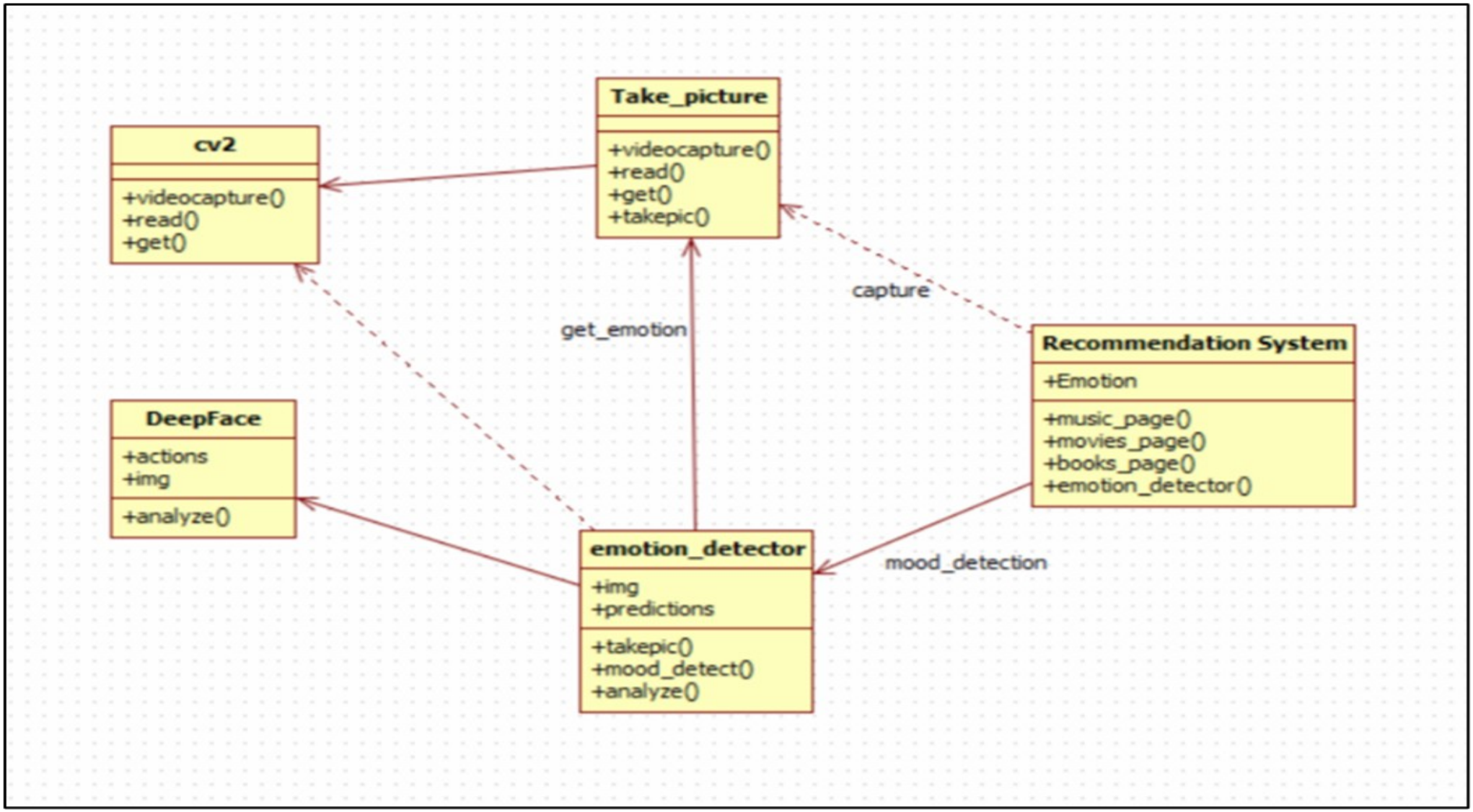
Advantages

- 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.

Block Diagram



Design


Take_picture
+videocapture()
+read()
+get()
+takepic()
cv2
+videocapture()
+read()
+get()
capture
get_emotion
Recommendation System
+Emotion
+music_page()
+movies_page()
+books_page()
+emotion_detector()
DeepFace
+actions
+img
+analyze()
emotion_detector
+img
+predictions
+takepic()
+mood_detect()
+analyze()
mood_detection

Purpose

- Recommendation systems gain more and more popularity and help people to select appropriate music for all occasions.
- A recommendation system is targeted to help people with music selection for different life situations and maintain their mental and physical conditions
- This system will continuously run in background and calculate and predict the mood of the user for a stipilated time period and will play a song according to the mood of the user.
- For Example, if the user is in a calm state or neutral state then a calming, meditation song will be continuously running in background so if any emotion changes after 5-6 min then again a new song will be played.

Applications

- Everyday, people undergo a lot of stress and the reliever of all the stress encountered is entertainment. This includes listening to music , watching movies, reading books.
- If it is so, the vital part of hearing the song or watching a movie or reading a book has to be in a facilitated way, that is player able to do it in accordance to the his/her mood. 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. Movies on the other hand helps an individual to relieve from stress. Reading books helps a person not only calm down but also helps in improving vocabulary.
- The application can also be helpful to those with problems like anxiety, depression as entertainment such as music, movies and books are known to be helpful in calming down people when they are stressed. This application can also be used normally when a person wants emotion based results for music, movies or books.

Conclusion

- The Emotion Based recommendation System is used to automate and give a better experience to the user . The application provides such a kind of experience by suggesting a list of songs, movies, books , tips and suggestions under one platform. It uses technology to increase the interaction of the system with the user in many ways.
- It eases the work of the end-user by capturing the image using a camera, determining their emotion, and allows the user to browse through different suggestions generated according to the emotion detected.


THANK YOU!