MOODIFIER

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UNDER

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Moodifier

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Abstract

Android Application which will intensify your current mood. Whether you are happy, sad, angry, surprised, it will certainly try to boost your mood to a great extent.

This application will involve Face recognition, Detect Emotion, followed by certain questionnaires to detect an individual's nature and accordingly will try to make him/her happy.

Goals

1. **Emotions Detection:** Primary goal of our project would be to detect emotion of an individual using Face Detection, Eye Tracking and specific facial positions from Camera interface of an android app.
2. **Intensifying detected emotion to a nice mood:** Secondary goal will involve supplementing an individual's detected emotion to a healthy mood!

How will Emotion recognised?

Emotive analytics is an interesting blend of **psychology** and **technology**. Though arguably reductive, many facial expression detection tools lump human emotion into 7 main categories: Joy, Sadness, Anger, Fear, Surprise, Contempt, and Disgust. With **facial emotion detection**, algorithms detect faces within a photo or video, and sense micro expressions by analyzing the relationship between points on the face, based on curated databases compiled in academic environments.

To detect emotion in the written word, **sentiment analysis** processing software can analyze text to conclude if a statement is generally positive or negative based on keywords and their valence index. Lastly, **sonic algorithms** have been produced that analyze recorded speech for both tone and word content.

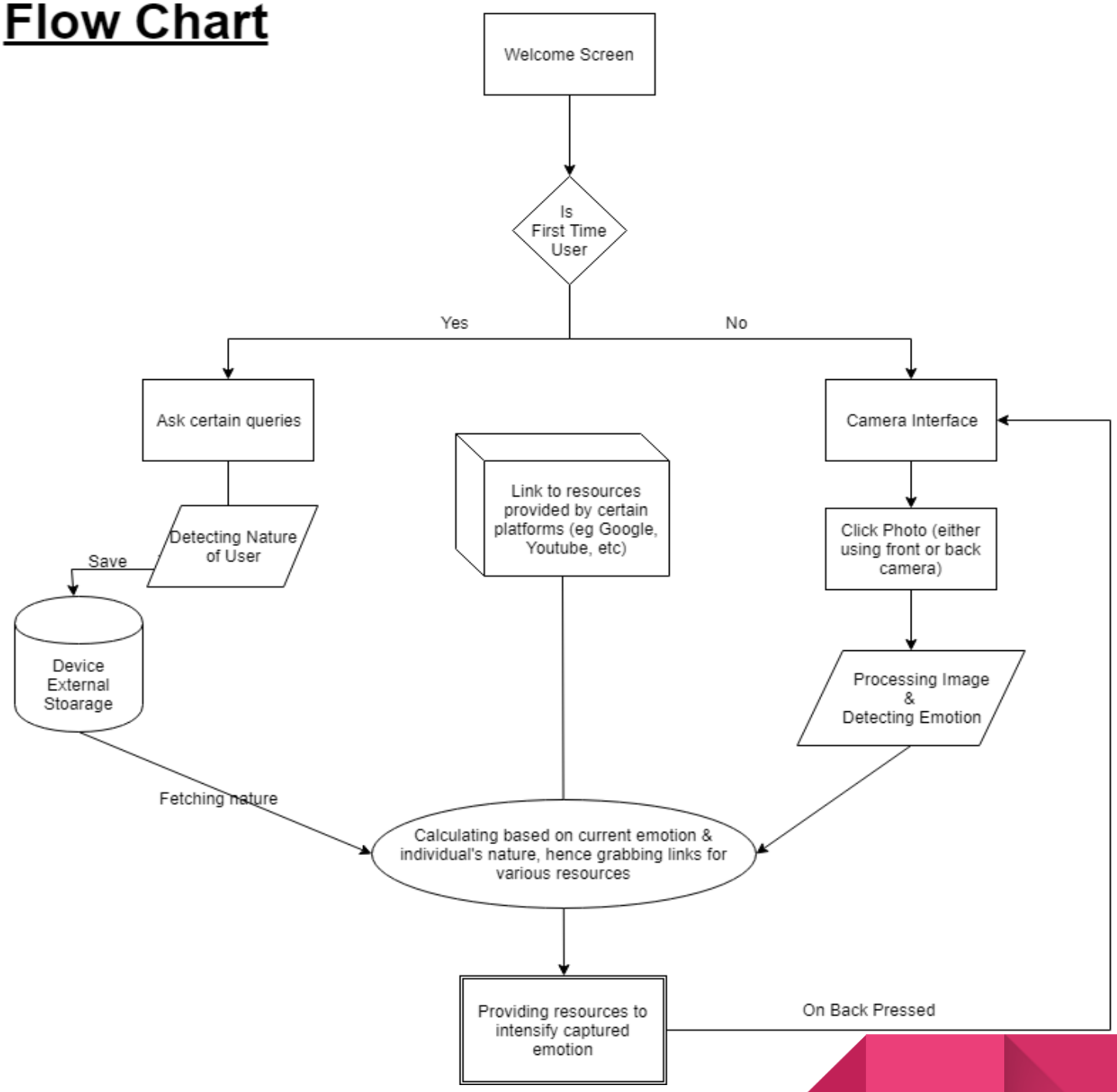
How will Moodifier work?

Step 1: Certain questionnaries will be asked by Moodifier from user to detect his/her nature first. That information will be stored to an external storage of an android app.

Step 2: After certain queries, Moodifier will provide Camera Interface where user can click their image (will support both back & front camera). That image will be temporarily displayed on the screen & will start getting processed to detect emotions from this captured image.

Step 3: Then accordingly whatever makes him happy/excited/surprised (information fetching from external storage), Moodifier will provide certain platforms to achieve the same.

Flow Chart


Welcome Screen
Is First Time User
Yes
No
Ask certain queries
Detecting Nature of User
Save
Device External Stoarage
Link to resources provided by certain platforms (eg Google, Youtube, etc)
Camera Interface
Click Photo (either using front or back camera)
Processing Image & Detecting Emotion
Fetching nature
Calculating based on current emotion & individual's nature, hence grabbing links for various resources
Providing resources to intensify captured emotion
On Back Pressed

Technology Stack

- ❑ Android Studio
- ❑ Java Programming
- ❑ XML for Layouts
- ❑ Google Face Detection API
- ❑ Microsoft Cognitive API
- ❑ Image Processing
- ❑ Smart Animation Library
- ❑ Android SDKs

Future Plans

Moodifier can be further extended by detecting emotions not only from Camera interface (Face Recognition) but also from user's speech (Speech Tone Recognition). To achieve this, user's sound & data sets (different emotions with different tone) can be compared.