IBM Hack Challenge

A Mega Hackathon

The **IBM** Hack Challenge
Hosted by: **IBM India**

College: **Indian Institute of Engineering Science and Technology, Shibpur (IIESTS)**

THE TEAM

SUBHAM

SARBAMOY

PRITAM

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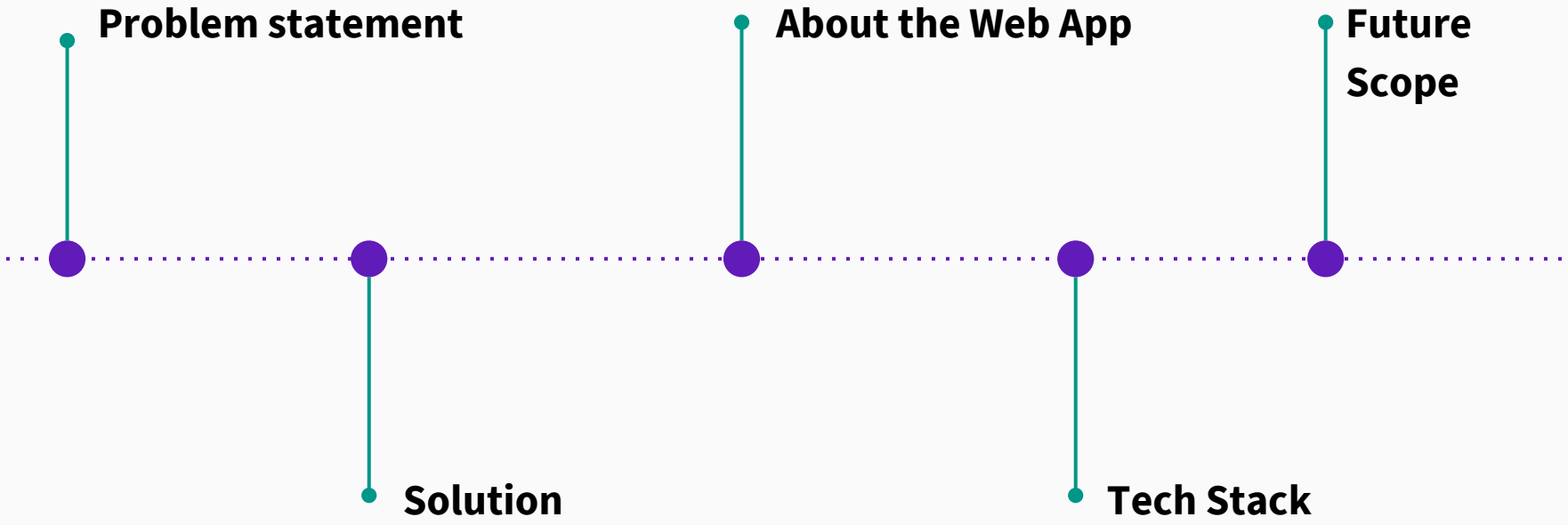

Problem statement
Solution
About the Web App
Tech Stack
Future Scope

Problem Statement 3: **Help me with my mood**

Help me with my Mood with Social-media Health Analysis and Display Engine (SHADE).

With the advances in technology about sentiment analysis and predictive analytics, it has opened many avenues for researchers and enterprises to understand human mental state better. The proposed challenge is to know the emotion/mood of a person, to help in eliminating any negative state of mind that might have adverse effect on his/her daily life.

A person’s emotions and moods have direct bearings on his/her daily activities. It is necessary to eliminate negative emotions that our family or friends might be experiencing, to help them lead a better life. Research has shown that social networking activity is a good source to gauge a person’s state of mind. Mood of a user is often reflected in his/her social content, like tweets, blogs, article, status updates, etc. Timely analysis of a user’s social media can be used to improve the feelings, and even save a person’s life in an extreme case! Hence it becomes important to regularly analyze the social-media health of our friends and family to take timely action.

Setting

The Idea

After a lot of brainstorming, we came up with pretty good plans but due to time constraints we couldn't manage to pull off all of them. Yet, we come up with beautiful, responsive web application that's built to lift up your mood with suggestion of youtube videos and game to play with.

So, be it on mobile/ desktop, the web application will run on any modern browser.

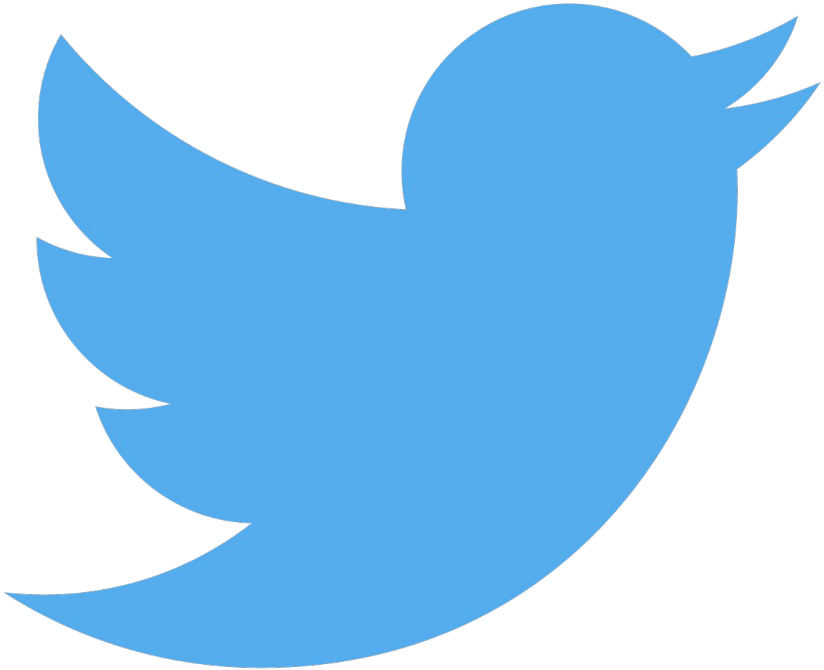
What we have done?

Addressing the problem statement, we have come with a web application that suggests youtube videos as well as a game directly embedded to the dashboard which is given according to your mood i.e., according to the tweet you tweeted. And in the meantime, you can also read your recent tweets. Great, right?

Okay. How we are going to know about you? So, we have assumed that you tweet a lot. A lot. That means, you tweet whatever you're feeling like many users on twitter.

So, we are going to take your most recent tweet from "Twitter" and guess your recent mood. ***Sounds good?***

Your
chirps
a.k.a
tweets



We are going to harvest your tweets to guess your recent mood according to the tone your tweet has.

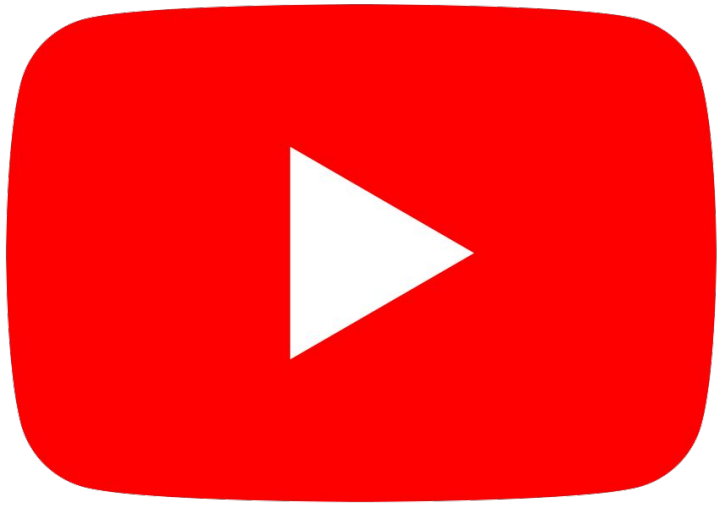
Oh, and how we are going to do such sentimental analysis?

IBM WATSON TONE ANALYSER

IBM Watson™

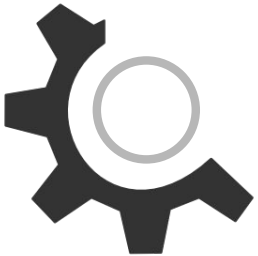
How we are trying to lift up your mood?

1. Youtube videos that are handpicked according to your mood.
2. Next, it’s a small game that will definitely cheer you up called “Jump with Justin”.



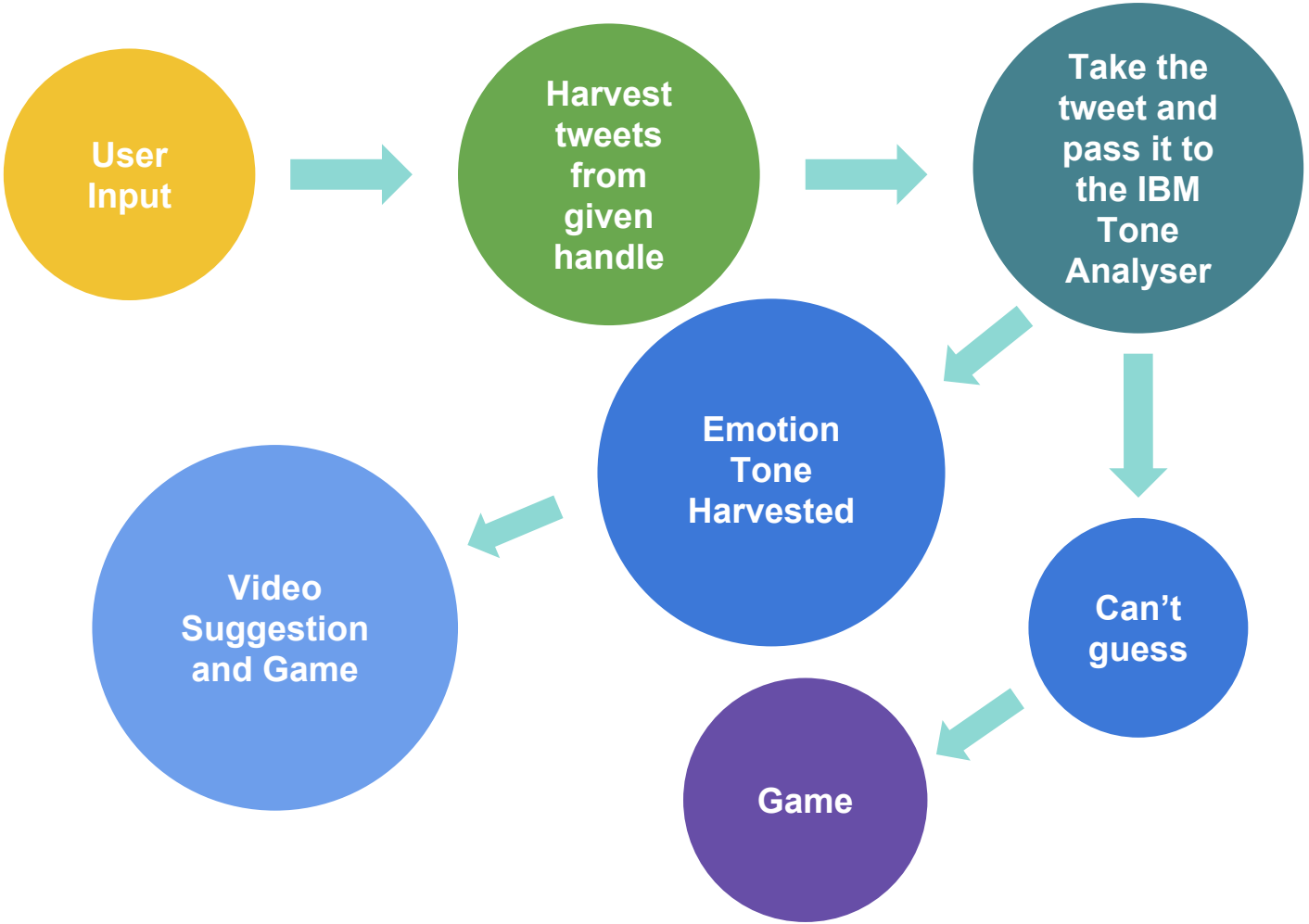
JUMP
WITH
JUSTIN.

Web Application



Application Walkthrough

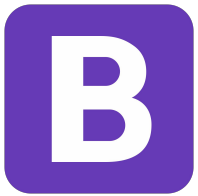
- Users have to enter their username
- Twitter API will fetch the most recent tweets
- As we are going guess your latest mood, we will pick the first tweet and pass it to the Tone Analyser
- Tone Analyser send the result json, from which we take out the mood with maximum score and suggest you a video to watch and a game to lift up your mood.


User Input
Harvest tweets from given handle
Take the tweet and pass it to the IBM Tone Analyser
Emotion Tone Harvested
Can't guess
Game
Video Suggestion and Game

Supported Browsers: Tested on

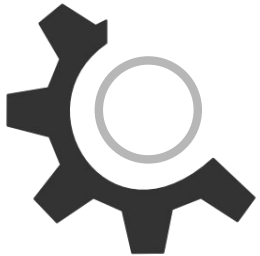
Tech Stack

- ➔ Python - 3.6.6 [Flask] as backend
- ➔ HTML 5, CSS 3, Bootstrap v4, Javascript, etc.
- ➔ IBM Watson Tone Analyser API v 2017-09-21 (Latest)
- ➔ Twitter API (Tweepy)
- ➔ *More features are on the way (so list may increase)*



How stuffs work in **backend?**

IBM Watson
Tone Analyser



How it responses when we feed a tweet?

And what we need, **emotion of the tweet**.

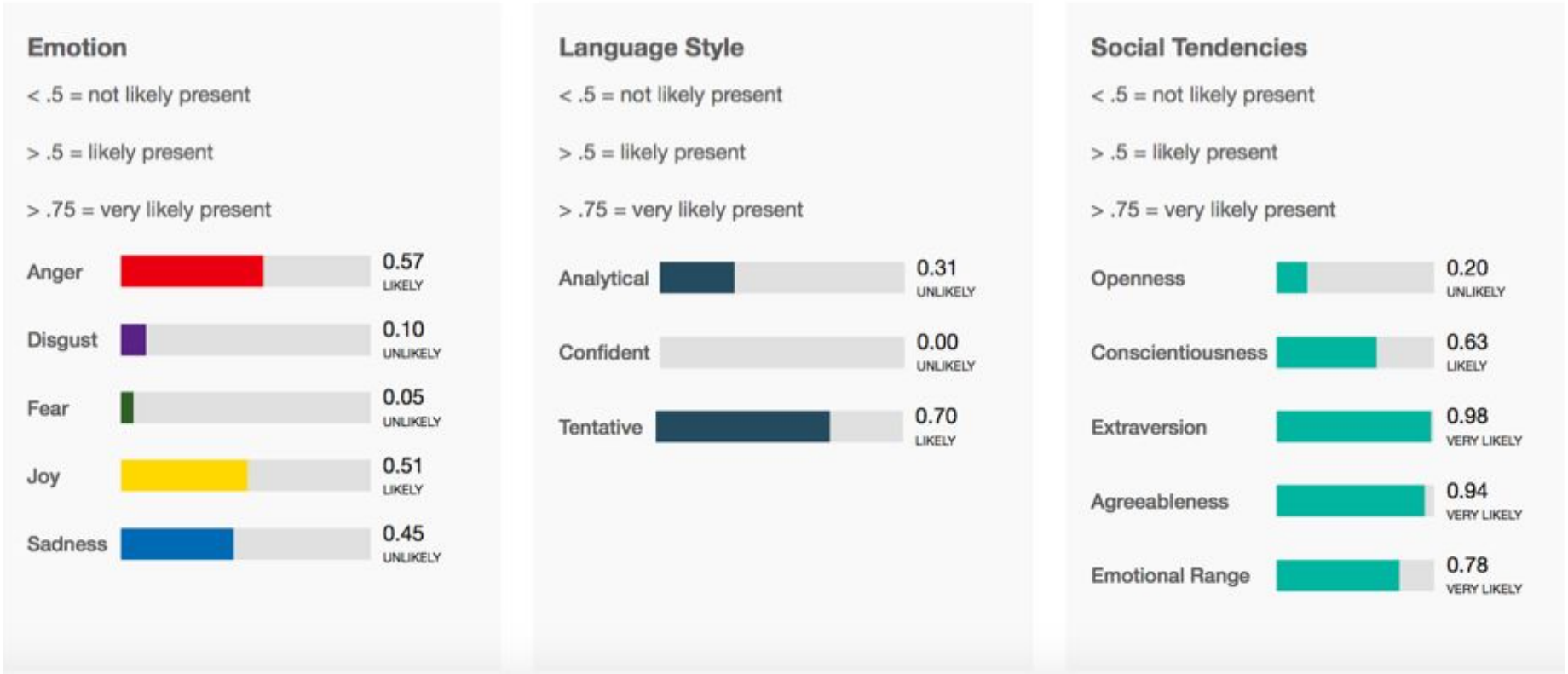
So, we get the **emotion tones**.

Tone Analyzer

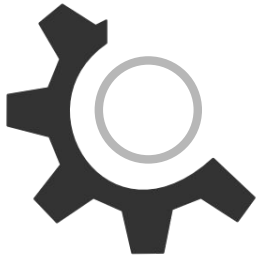
Discover, understand, and revise the language tones in text for the perfect message for your audience.

IBM **Watson**

Document-level



Twitter API

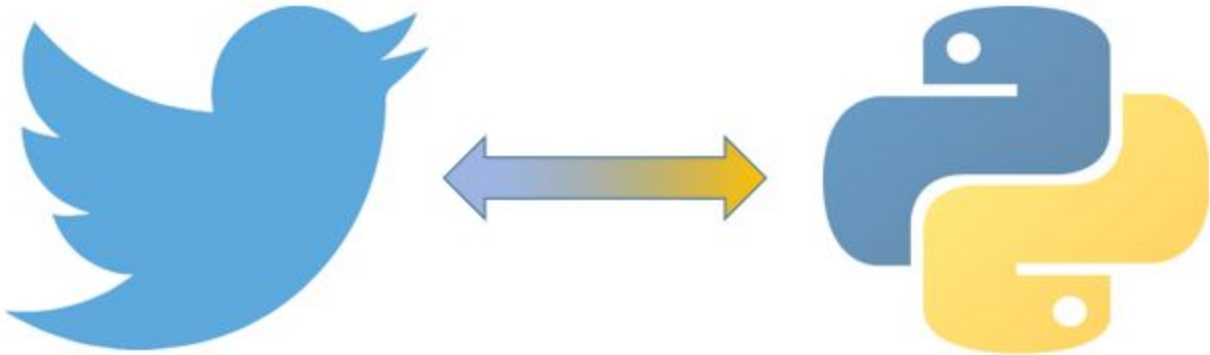


How we get the tweets of the user?

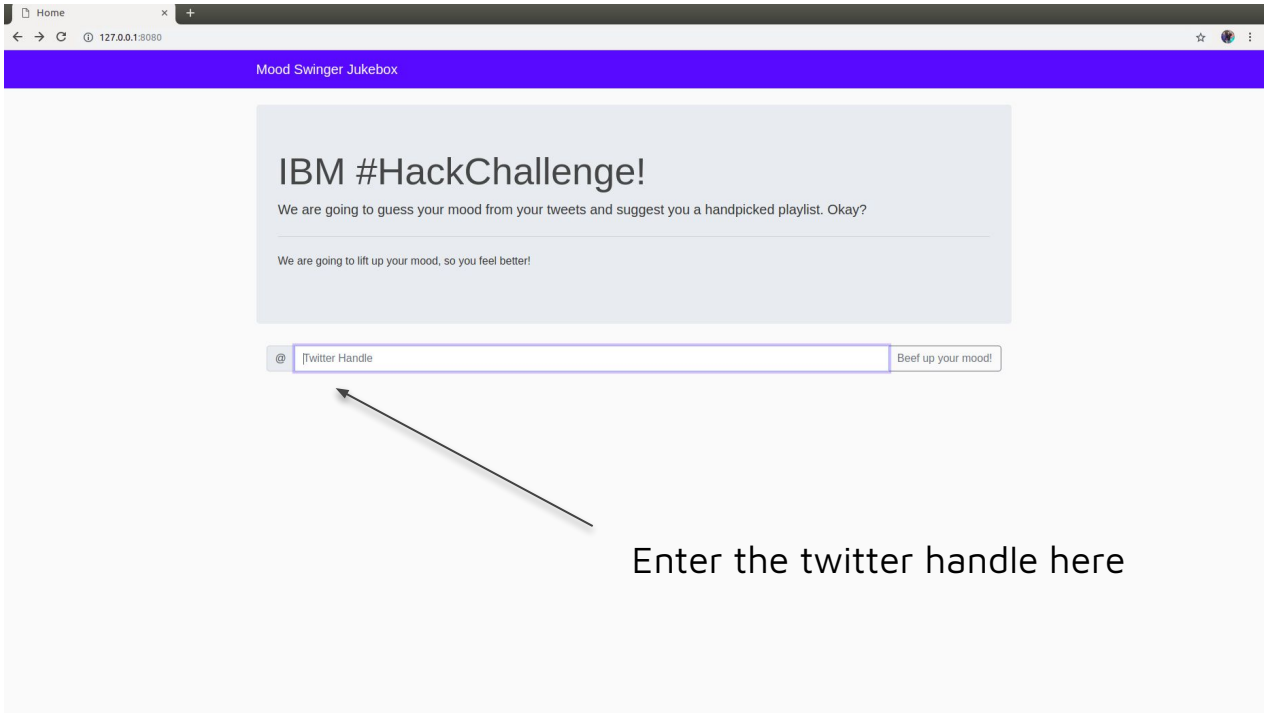
So, we use “tweepy”.

What’s **tweepy** now?

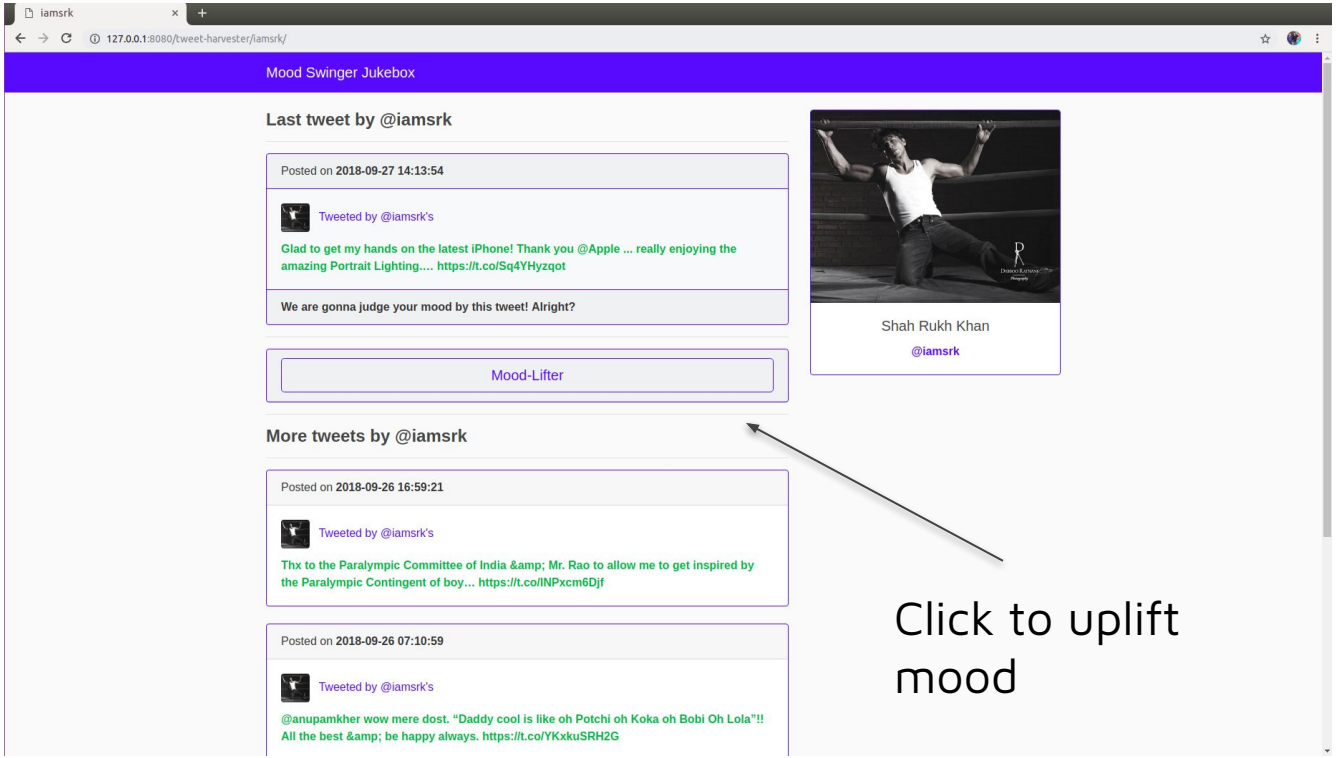
An easy-to-use Python library for accessing the Twitter API.



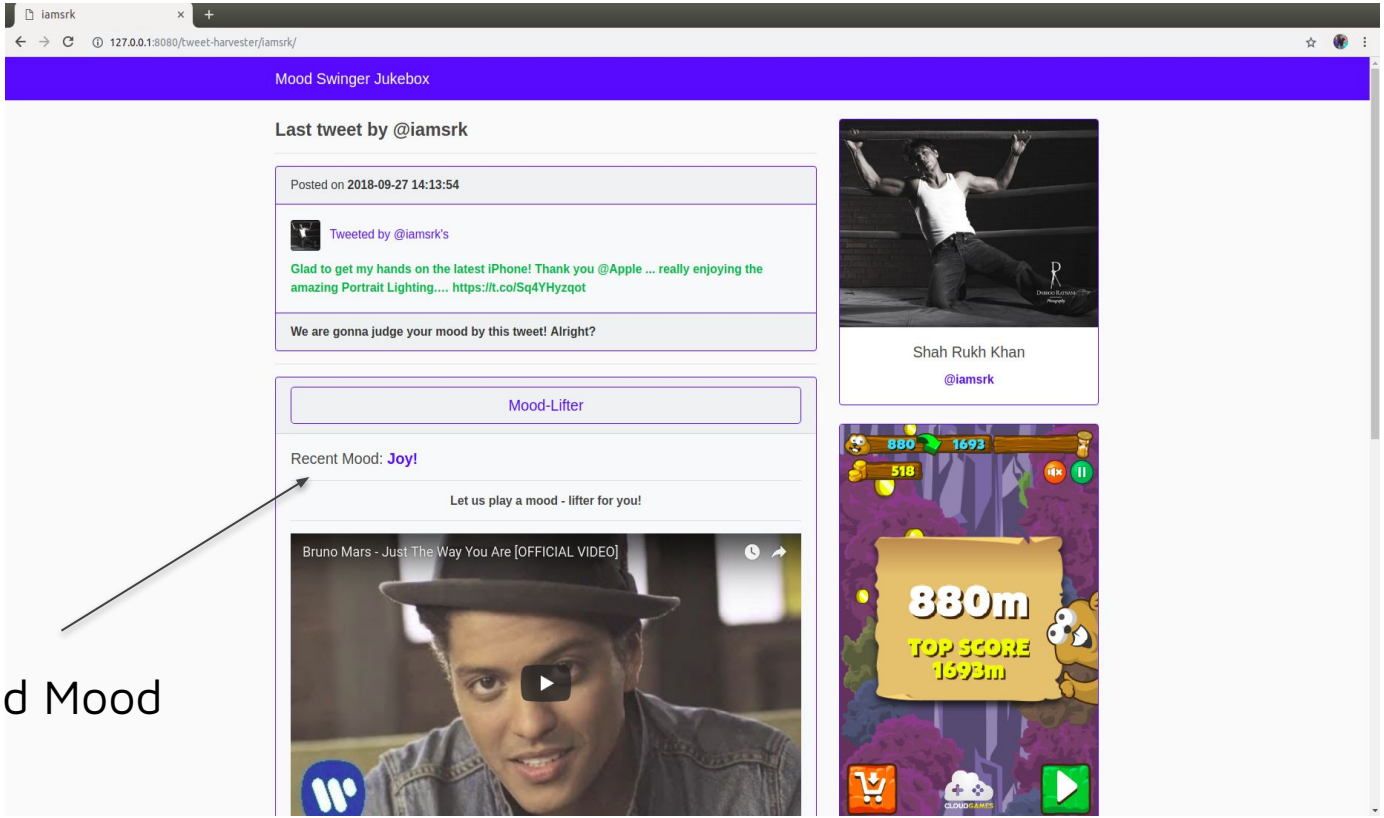
How the app looks?


Home
127.0.0.1:8080
Mood Swinger Jukebox
IBM #HackChallenge!
We are going to guess your mood from your tweets and suggest you a handpicked playlist. Okay?
We are going to lift up your mood, so you feel better!
@
Twitter Handle
Beef up your mood!
Enter the twitter handle here

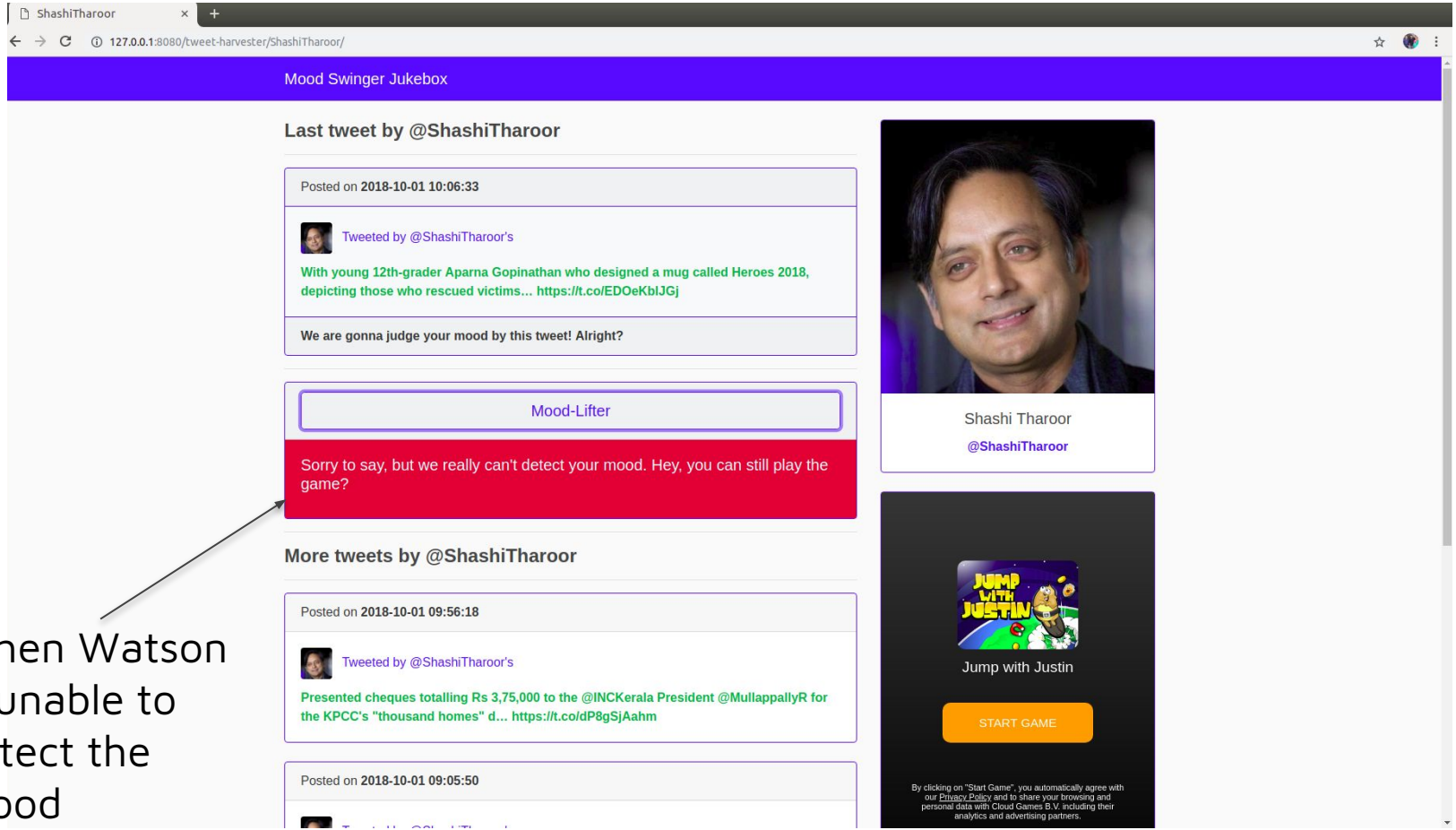
Recent tweets



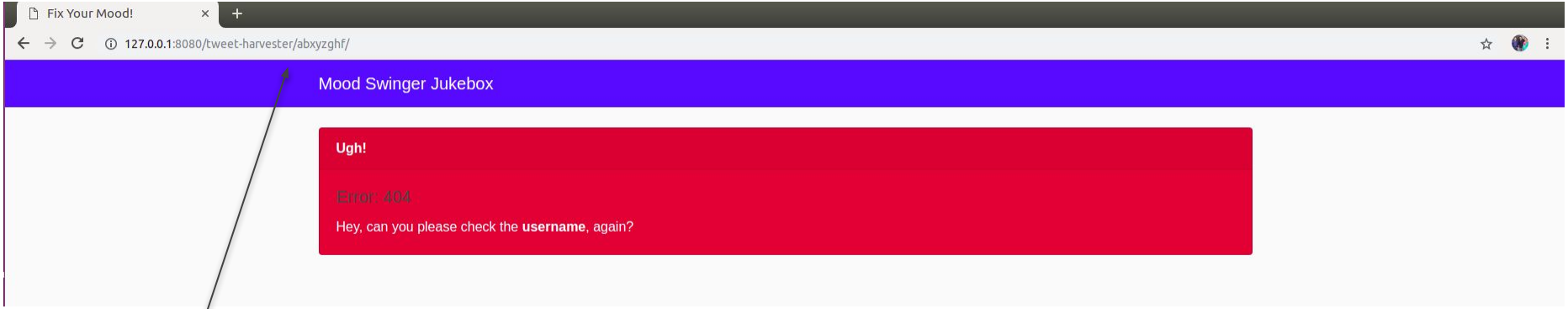
Click to uplift mood



Suggested Mood

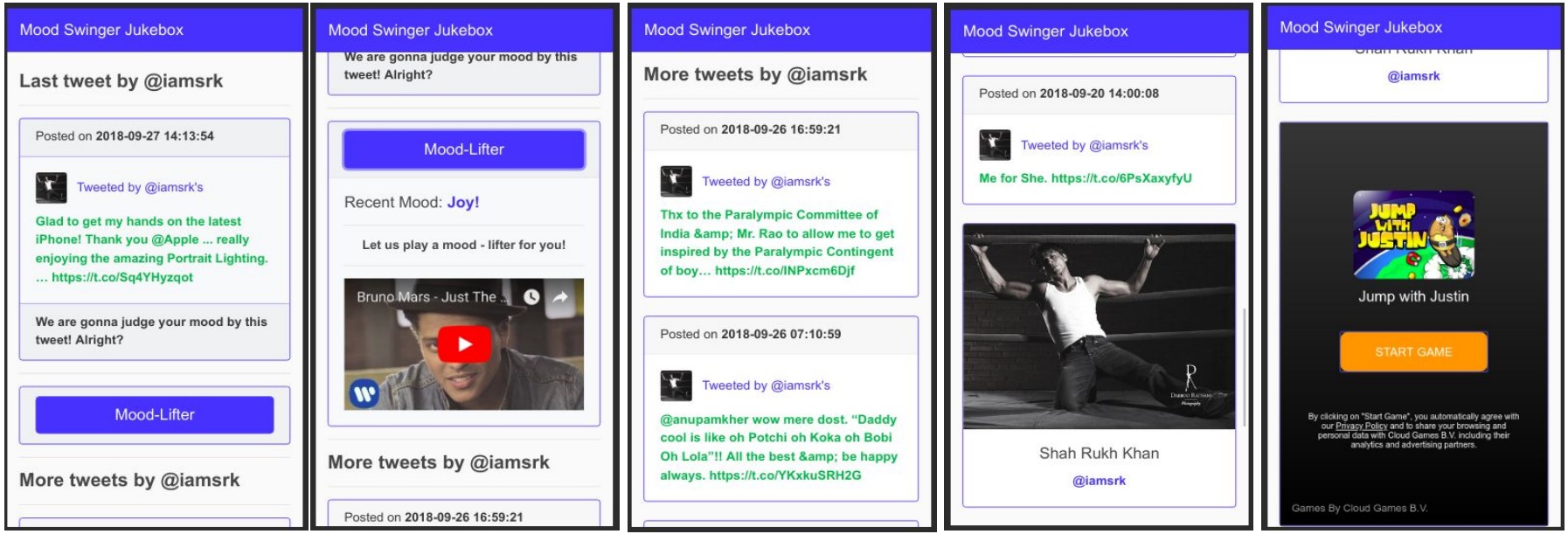


When Watson is unable to detect the mood



When the twitter user handle does not exist

How our application looks like in an iPhone 8 (Responsive Design)



Source: Chrome DevTools

Future Scopes

Integrate our platform with other social networking sites like facebook, instagram, etc.

Requirements

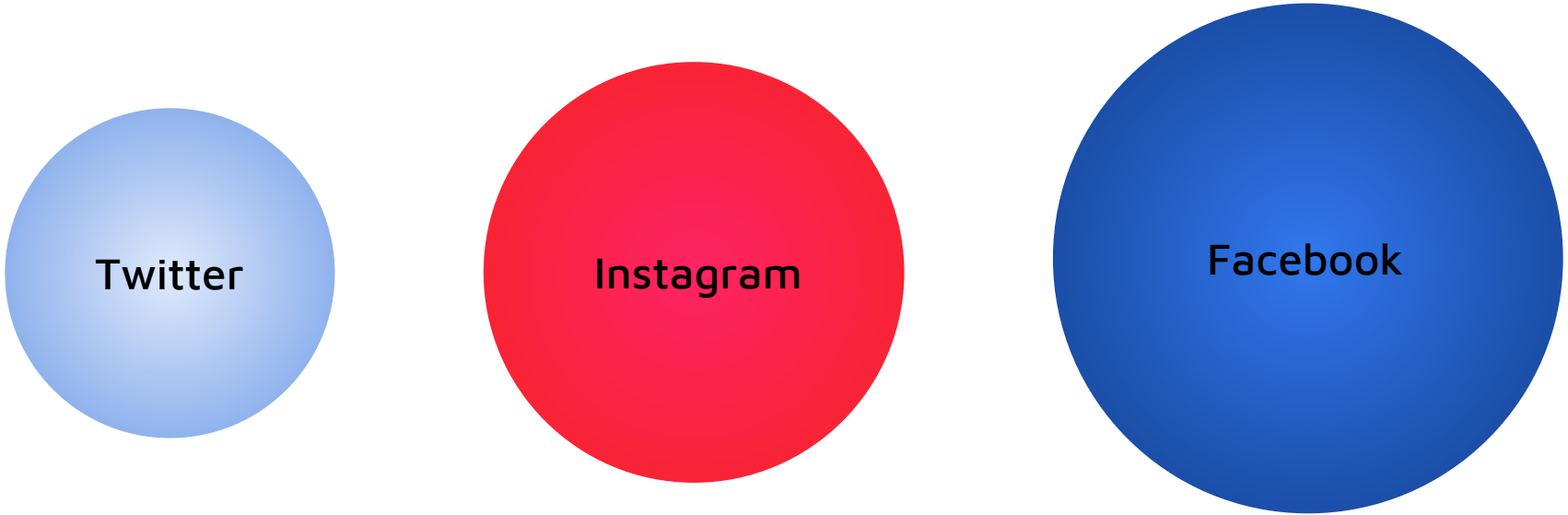
Facebook API, Instagram API, etc.

Having an extension to automate the whole process i.e., the person will receive pop-ups based on his/ her online activity.

Requirements

Scaling up the backend since the process will be CPU-intensive.

Target Population



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Thank You