

# IBM Hack Challenge

## A Mega Hackathon



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

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



# THE TEAM



**SUBHAM**

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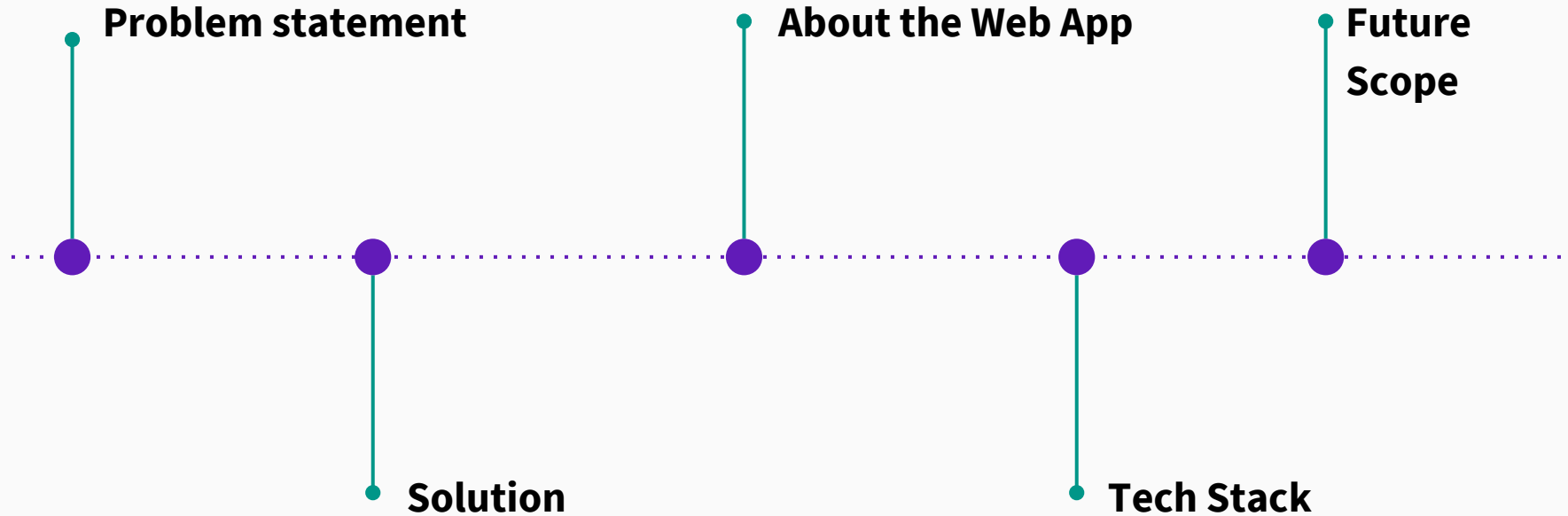
**SARBAMOY**

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**PRITAM**

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## 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

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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?

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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?

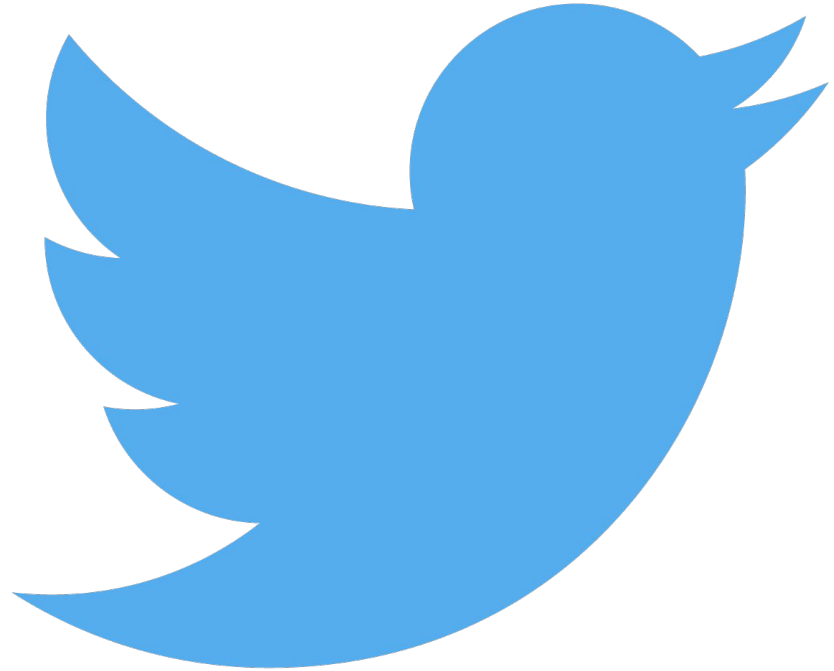


Okay. How we are going to know about you? So, we have assumed that you tweet a lot. A lot. That means, you tweet whatever you're feeling like many users on twitter.


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

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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

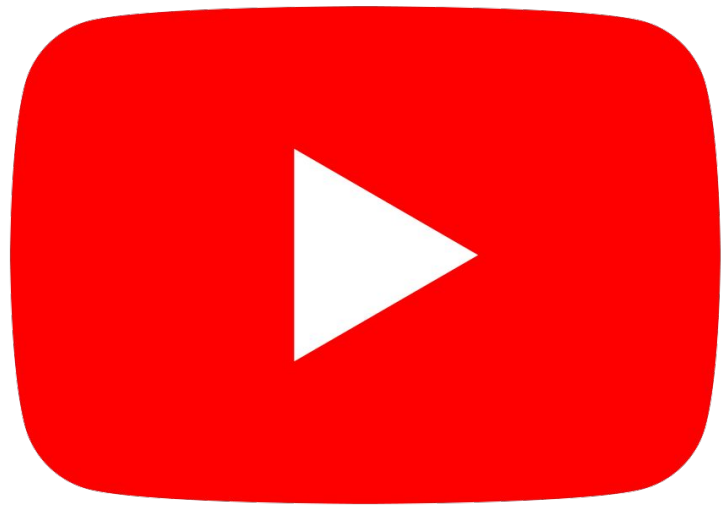


IBM **Watson**<sup>TM</sup>



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".

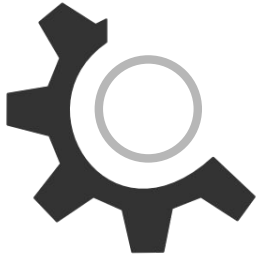


# JUMP WITH JUSTIN.



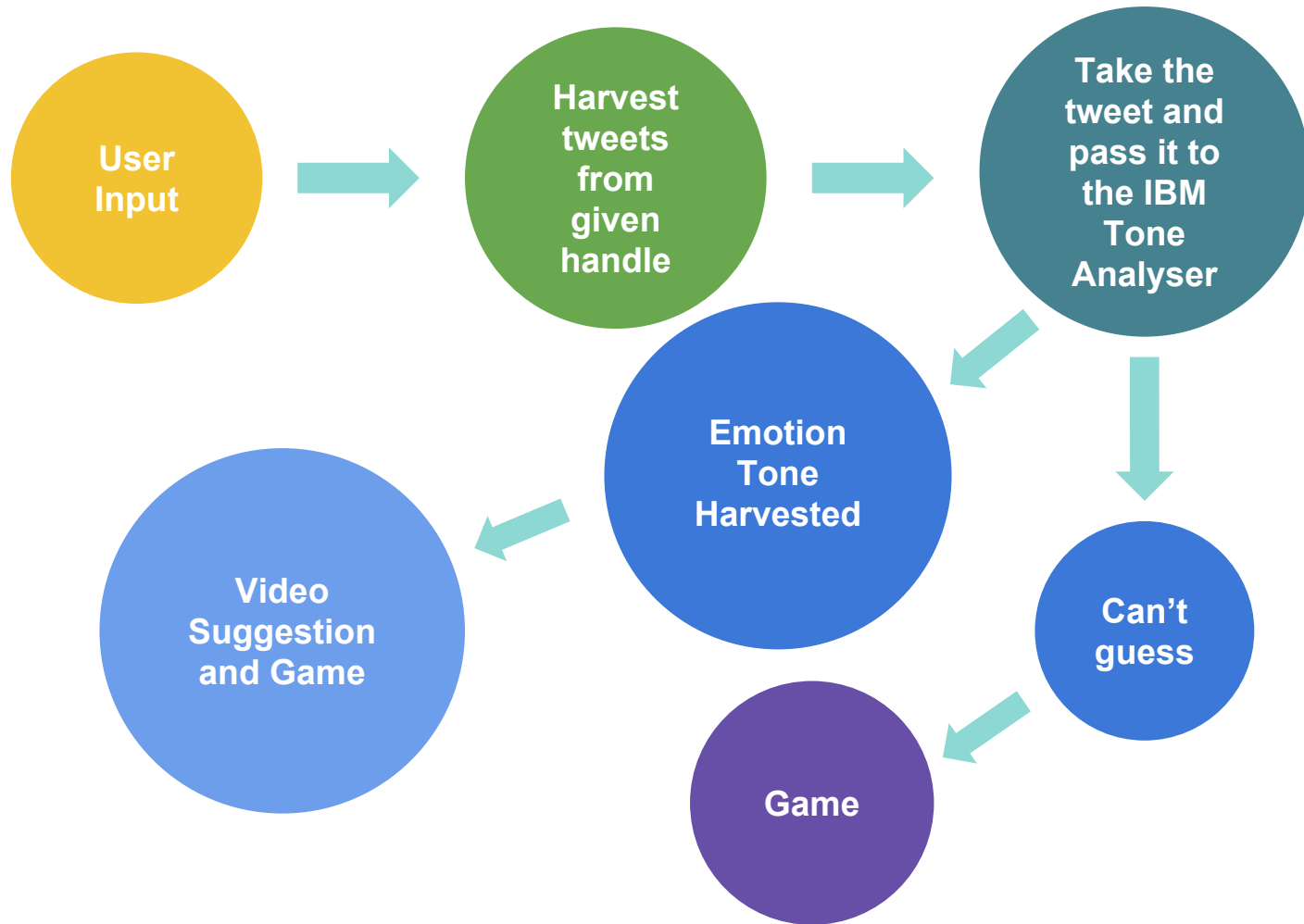


# Web Application



## Application Walkthrough

- Users have to enter their username
- Twitter API will fetch the most recent tweets
- As we are going to guess your latest mood, we will pick the first tweet and pass it to the Tone Analyser
- Tone Analyser sends 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.

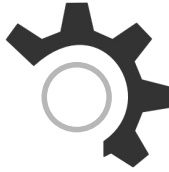


# Supported Browsers: Tested on

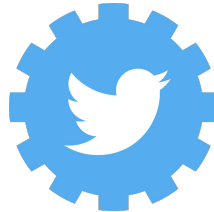




# Tech Stack



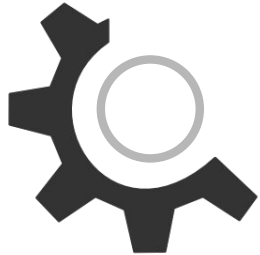
- Python - 3.6.6 [Flask] as backend
- HTML 5, CSS 3, Bootstrap v4, Javascript, etc.
- IBM Watson Tone Analyser API v 2017-09-21 (Latest)
- Twitter API (Tweepy)
- *More features are on the way (so list may increase)*



How stuffs work in  
**backend?**



## IBM Watson **Tone Analyser**



How it responds 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**



Joy (12%)

Anger (12%)

Confident (12%)

Openness (12%)

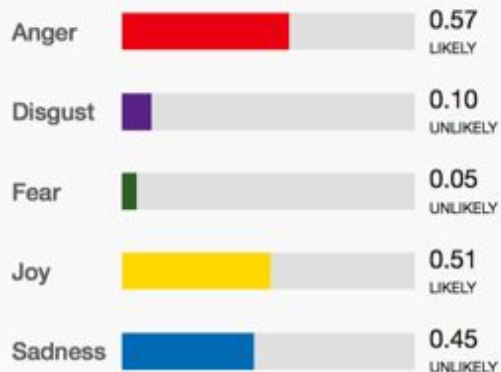
# Document-level

## Emotion

< .5 = not likely present

> .5 = likely present

> .75 = very likely present

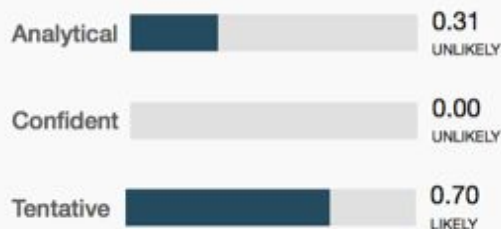


## Language Style

< .5 = not likely present

> .5 = likely present

> .75 = very likely present

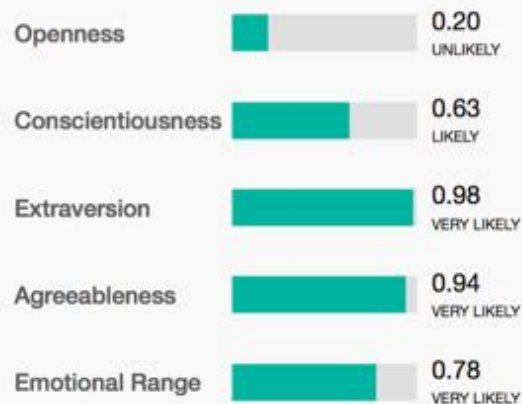


## Social Tendencies

< .5 = not likely present

> .5 = likely present

> .75 = very likely present





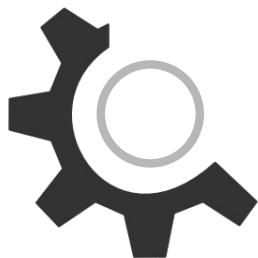
How we get the tweets of the user?

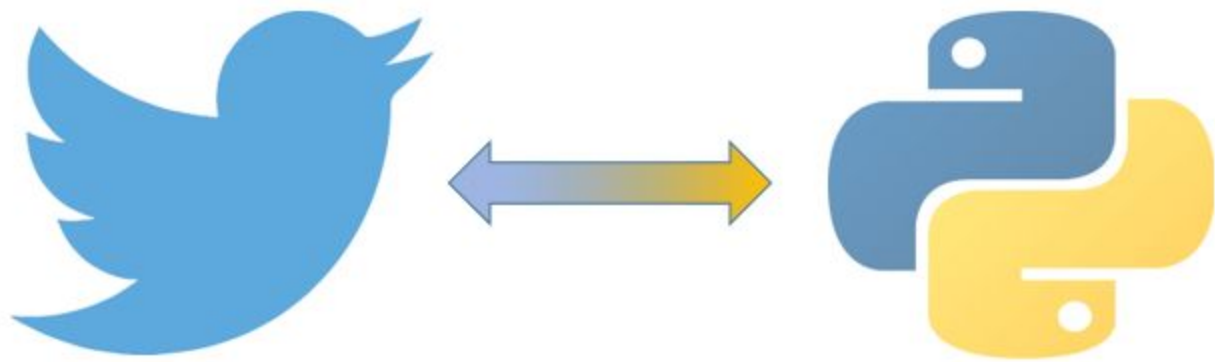
So, we use “tweepy”.

Twitter API

What’s **tweepy** now?

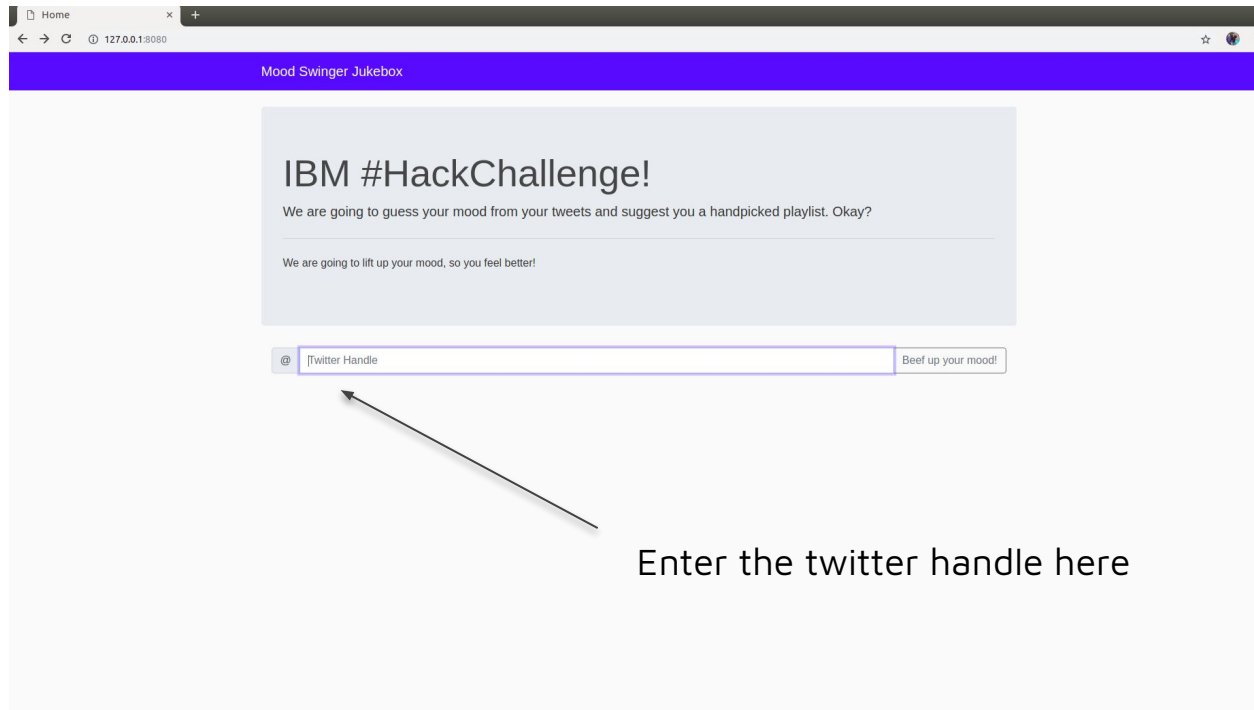
An easy-to-use Python library for accessing the Twitter API.





How the app looks?






Enter the twitter handle here

Recent tweets

Mood Swinger Jukebox

Last tweet by @iamsrk

Posted on 2018-09-27 14:13:54

 Tweeted by @iamsrk's


Glاد to get my hands on the latest iPhone! Thank you @Apple ... really enjoying the amazing Portrait Lighting.... <https://t.co/Sq4YHyzqot>

We are gonna judge your mood by this tweet! Alright?

Mood-Lifter


More tweets by @iamsrk

Posted on 2018-09-26 16:59:21


 Tweeted by @iamsrk's

Thx to the Paralympic Committee of India & Mr. Rao to allow me to get inspired by the Paralympic Contingent of boy... <https://t.co/INPxcn6Djf>

Posted on 2018-09-26 07:10:59

 Tweeted by @iamsrk's

@anupamkher wow mere dost. "Daddy cool is like oh Potchi oh Koka oh Bobi Oh Lola"!! All the best & be happy always. <https://t.co/YKxkuSRH2G>



Shah Rukh Khan  
@iamsrk

Click to uplift mood

Browser address bar: iamsrk x + 127.0.0.1:8080/tweet-harvester/iamsrk/

Mood Swinger Jukebox

Last tweet by @iamsrk

Posted on 2018-09-27 14:13:54

Tweeted by @iamsrk's

Glad to get my hands on the latest iPhone! Thank you @Apple ... really enjoying the amazing Portrait Lighting..... <https://t.co/Sq4YHyzqot>

We are gonna judge your mood by this tweet! Alright?

Mood-Lifter

Recent Mood: Joy!

Let us play a mood - lifter for you!

Bruno Mars - Just The Way You Are [OFFICIAL VIDEO]

Shah Rukh Khan @iamsrk

880m TOP SCORE 1693m

Suggested Mood

When Watson  
is unable to  
detect the  
mood


ShashiTharoor x +

127.0.0.1:8080/tweet-harvester/ShashiTharoor/ ☆

### Mood Swinger Jukebox

#### Last tweet by @ShashiTharoor

Posted on 2018-10-01 10:06:33

 Tweeted by @ShashiTharoor's

With young 12th-grader Aparna Gopinathan who designed a mug called Heroes 2018, depicting those who rescued victims... <https://t.co/EDOeKblJGj>


We are gonna judge your mood by this tweet! Alright?

Mood-Lifter

Sorry to say, but we really can't detect your mood. Hey, you can still play the game?


#### More tweets by @ShashiTharoor


Posted on 2018-10-01 09:56:18

 Tweeted by @ShashiTharoor's


Presented cheques totalling Rs 3,75,000 to the @INCKerala President @MullappallyR for the KPCC's "thousand homes" d... <https://t.co/dP8gSjAahm>

Posted on 2018-10-01 09:05:50





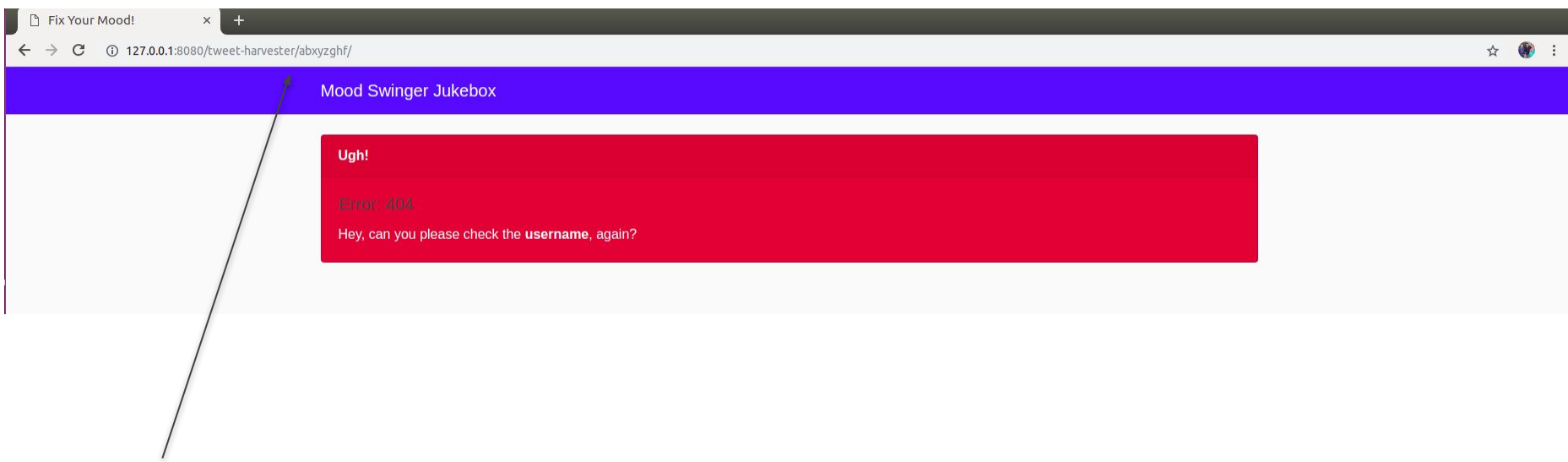
Shashi Tharoor  
@ShashiTharoor



Jump with Justin

START GAME

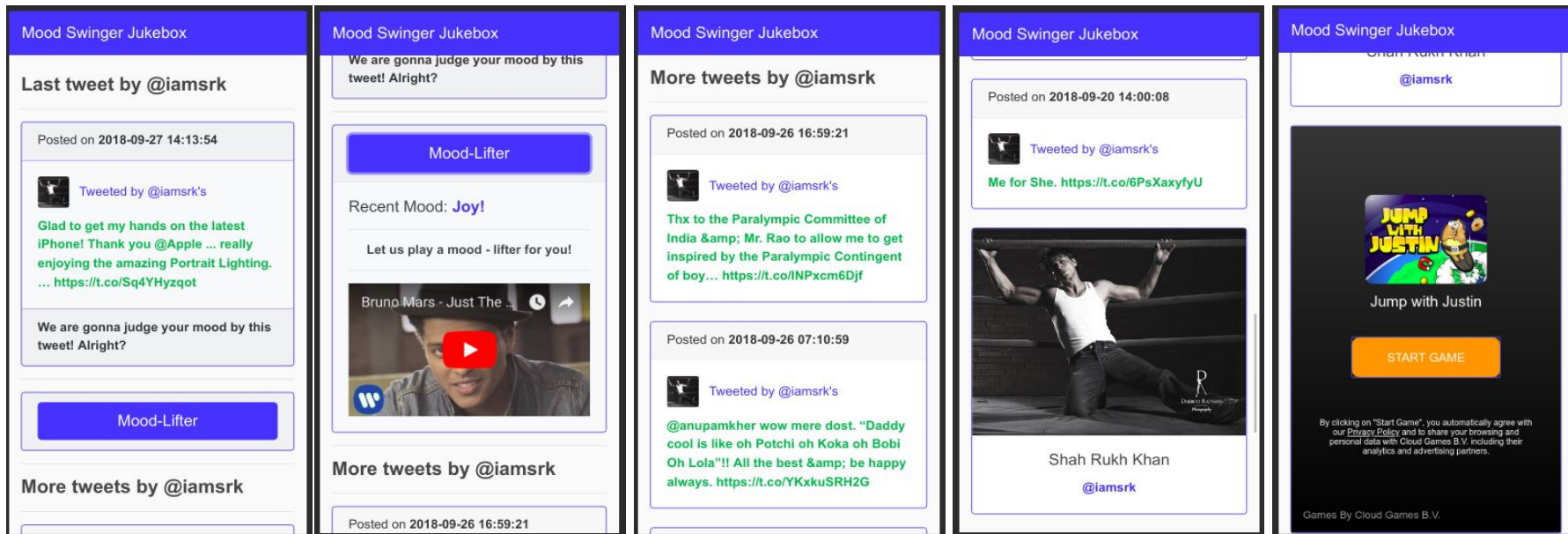
By clicking on "Start Game", you automatically agree with our Privacy Policy and to share your browsing and personal data with Cloud Games B.V. including their analytics and advertising partners.



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.



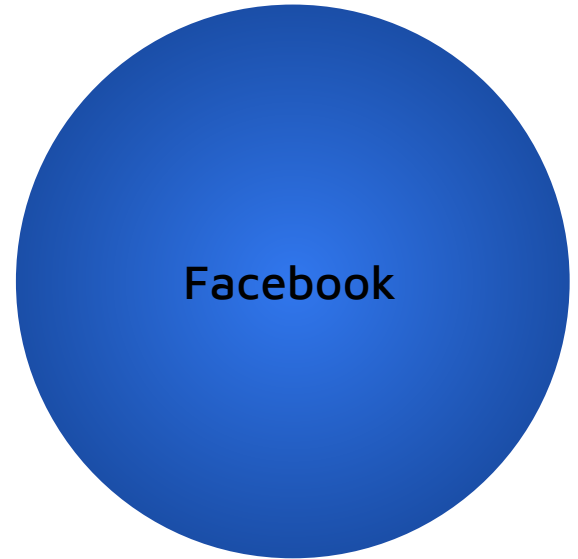
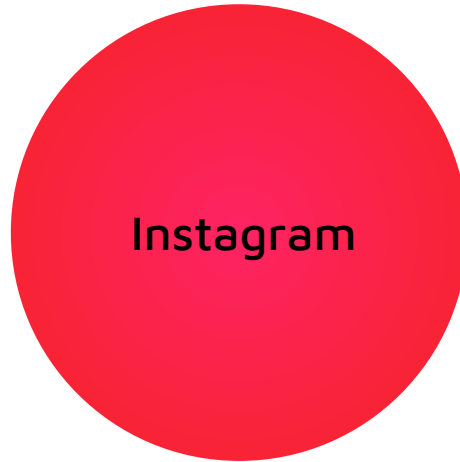
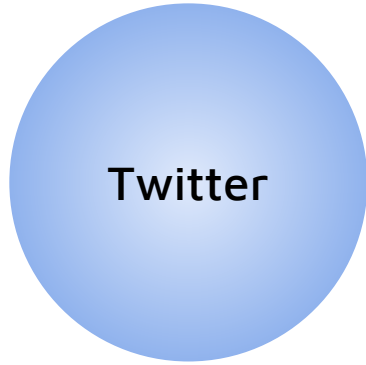
Having an extension to automate the whole process i.e., the person will receive pop-ups based on his/ her online activity.

## Requirements

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



## Target Population



# About: The Team





## About Subham

- **Full name:** Subham Sarkar
- **College:** IEST, Shibpur
- **Department:** Computer Science and Technology
- **Year:** Fourth (4th)
- **Github Handle:** xdsarkar



## About Sarbamoy

- **Full name:** Sarbamoy Mallick
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- **Year:** Fourth (4th)
- **Github Handle:** sarbamoy



## About Pritam

- **Full name:** Pritam Pathak
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- **Department:** Computer Science and Technology
- **Year:** Fourth (4th)
- **Github Handle:** priprocks

# Thank You