

## **IBM Hack Challenge: A Mega Hackathon**

1. **Problem Statement 3: Help me with my Mood** - with Social-media Health Analysis and Display Engine (SHADE).
2. **Team Size:** 3 Members
3. **Team Members:**
  - a. Sarbamoy Mallick
  - b. Subham Sarkar
  - c. Pritam Pathak
4. **Problem Description:** A person's emotions and moods have direct bearings on his/her daily activities. It is necessary to eliminate the 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. The 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.
5. **Technologies Used:**
  - a. Python v3.6
  - b. Flask
  - c. HTML, CSS, Bootstrap v4
  - d. IBM Watson Tone Analyser API
  - e. Tweepy - Twitter API, etc.
6. **Roles:**

We consider the contributions to the projects as a collective effort. Dividing backend, frontend, etc. can't be assigned to individual members. Contribution to the project is more or less equal.
7. **Scope of work:**
  - a. We leveraged from Twitter API from which we could fetch anyone's tweets.
  - b. Tweets fetched from Twitter and sent to IBM Watson Tone Analyser for tone analysis and a response, we get the tone.
  - c. We consider the most recent tweet by the user rather than multiple because:
    - i. We initially thought to do a weighted average of the tones from multiple tweets, but general users don't tweet much. And it might happen that someone was really happy in the morning but after a

tiresome day, we might be tired and eventually angry which will make our analysis bad.

- ii. And if multiple tweets are taken into account but it might happen that some tweets are perhaps a day or two back or maybe even days.
- iii. So, we stick to the most recent tweet to judge your recent mood.
- d. We have a playlist mapped to specific moods and game embedded to our application's dashboard.
- e. Users can get their results from their twitter handle. We will guess your mood and suggest you a really nice video to watch and listen to. And yes, we are giving you a hyper casual game to play with which will definitely cheer your mood.

#### **8. Business Perspective:**

- a. We can give targeted ads according to the mood of the user. For example:
  - i. Happy: We can show you products ads which you can buy from partnered businesses
  - ii. Sad/ Angry: We can give your offers/ coupons from partnered businesses

#### **9. Future Scopes:**

- a. Integration of music API according to mood tags (eg. Spotify, currently not available in India)
- b. Facial detections when users use our app, to detect their mood by facial recognition
- c. Integration with other social networking sites like Facebook, Instagram where most users share more specifically mood based posts than Twitter and also have a larger user base
- d. Recommendation engine which gets better with time from the regular evaluation of moods
- e. Keeps tracks of users mood in a day to day timeline and automating the process of analysis of his/ her tones.