

## IBM Hack Challenge 2018: Team Persona

**Problem Statement:** Problem Statement 3: “*Help Me with My Mood*”

**Team Size:** 3 Members

### Team Members:

- Sanskar Jain
- Bhanu Dutta Parashar
- Saransh Sharma

### Problem statement defined in simple terms:

“*Help me with my Mood*” with “**Social-media Health Analysis and Display Engine (SHADE)**”. The objective of the work is to propose more accurate and scalable recommendation system based on the user moods. To do this:

- Extract users’ sentiments from social media hypertext.
- Develop reinforcement learning to model cognitive states of users.
- More accurate content based recommendation systems.

### Scope of Work:

- **Deliverables:** Providing a full stack web application that allows user to register/login to provide recommendations. Recommendations are in the form of videos, images, songs and articles that can be viewed on recommendation page as well as daily mails will be sent to users if their mood is critical.
- **Timeline:** Initially the project was a flowchart. It started as a group of small scattered modules, including modules to scrap and/or extract data from social media sites, sentiment analysis using IBM Watson API, recommendation system using reinforced learning and UI and backend of Website which is holding everything together. Then modules were joined together, and additional functionalities like mailing system and a continuous ‘watcher’ system to send mails to users were finally created. Simultaneously dataset of images, videos, songs and articles was collected.

### Technologies Used:

Python and its packages:	Web Technologies:
<ol style="list-style-type: none"><li>1. Flask</li><li>2. Keras</li><li>3. IBM-Tone-Analyzer</li><li>4. Bcrypt</li><li>5. json</li><li>6. SQLAlchemy</li><li>7. BeautifulSoup</li><li>8. Python twitter REST APIs</li><li>9. numpy</li><li>10. smtplib</li></ol>	<ol style="list-style-type: none"><li>1. HTML</li><li>2. CSS</li><li>3. Bootstrap</li><li>4. JavaScript</li></ol>

### Role of Each Member:

- **Sanskar Jain:**
  - UI/UX Designer
  - Website Backend creator
  - Database manager
  - Login/Registration handler
  - Developed 'Watcher' functionality
  - One who joined all the pieces together
  - Documentation
- **BhanuParashar:**
  - Extracting tweets from Twitter
  - Scrapping Public Instagram posts
  - Creating and Training Neural Network for converting emotions to recommendation
  - Mailing System
- **Saransh Sharma:**
  - Database collection
  - Sentiment analysis

**GitHub Link:** <https://github.com/sanskarjain1997/Persona>

**YouTube Link:** <https://youtu.be/OxmJJuA8hIw>