## **Final Project**

Deadline: 8 December, 2022

## **Instructions:**

- You are required to work in **Python**. Projects incompatible of Python will not be accepted
- It is an individual project
- User Interface is important in this project. Try to be as **creative** as possible
- Use of extra features in this project is encouraged
- Use good programming practices, well commented code, meaningful variable names, readable code etc.
- Submit a **single zip file** named as **i21-xxxx.zip**, students not following the submission guidelines would be **penalized**.
- Evaluation Rubrik will be shared soon
- If you are getting any help from internet, you have to cite that website and you must be able to explain that code
- In case of plagiarism, student be awarded with "F" grade in the course.
- You are not allowed to use Neural networks in this project either for modeling or feature extraction.

## **Project Description:**

You are required to work on the provided meme's dataset. The dataset consists of two types of data. i.e., images and text.

Sentiment Classification: Given an Internet meme, the first task is to classify it as a positive, very positive, negative, very negative or neutral meme.

- Train any 6 classifiers (3 for images and 3 for text) on the provided dataset using sklearn library. Classifiers can be of your own choice. You have to do the majority voting on the basis of labels returned by classifiers.
- Display the confusion matrix, accuracy, recall, precision and F1-meausre for the 5 classifiers you have trained.
- Now comes the most important part of the project, you will be working with Flask in this project. Flask is a Python web framework that makes it easy to create a fully featured web application. It is quite simple, easy to learn and is a very demanding skill in the market thus will help you a lot.

- You have to create a web application and deploy your project on it, basically interacting on the web application for input and output. A user will be giving the test case on your website e.g., giving some meme and you have to tell that whether it is positive or negative.
- You're encouraged to push your creative skills and create a user-friendly web application as the aesthetics and presentation of the web application carries some portion of the project's marks.
- Start working right away as the deadline of the project is final and will not be extended.

**BEST OF LUCK!**