Natural Language Processing   **Submission Date: 30 November 2020**

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Submission Instructions:

Submit a **zip folder** including the following files:

1. A pdf file with group member names, SAP ids and roles
2. A code file (pdf) with concise explanation of code
3. A report (pdf) that explains your work
4. Dataset for the code

Question:

You are hired by Pakistan International Airline to improve their customer's experience. As a machine learning expert, your first task is to develop a dataset of customer reviews and perform sentimental analysis.

In order to carry out the task, you have to do the following sub-tasks:

- Develop a machine learning team with concise roles for each member
- Create a dataset of 441 reviews from the below website
  https://www.tripadvisor.com/Airline_Review-d8729129-Reviews-Pakistan-International-Airlines
- Perform sentimental analysis on the reviews gathered. Carry out all NLP steps from pre-processing to prediction and selecting the best model

Here are some of the tips to write down your code and report:

- **Frame the Problem and Look at the Big Picture**
- **Get the Data**
- **Explore the Data**
- **Prepare the Data**
- **Short-List Promising Models**
- **Fine-Tune the System**

Good Luck