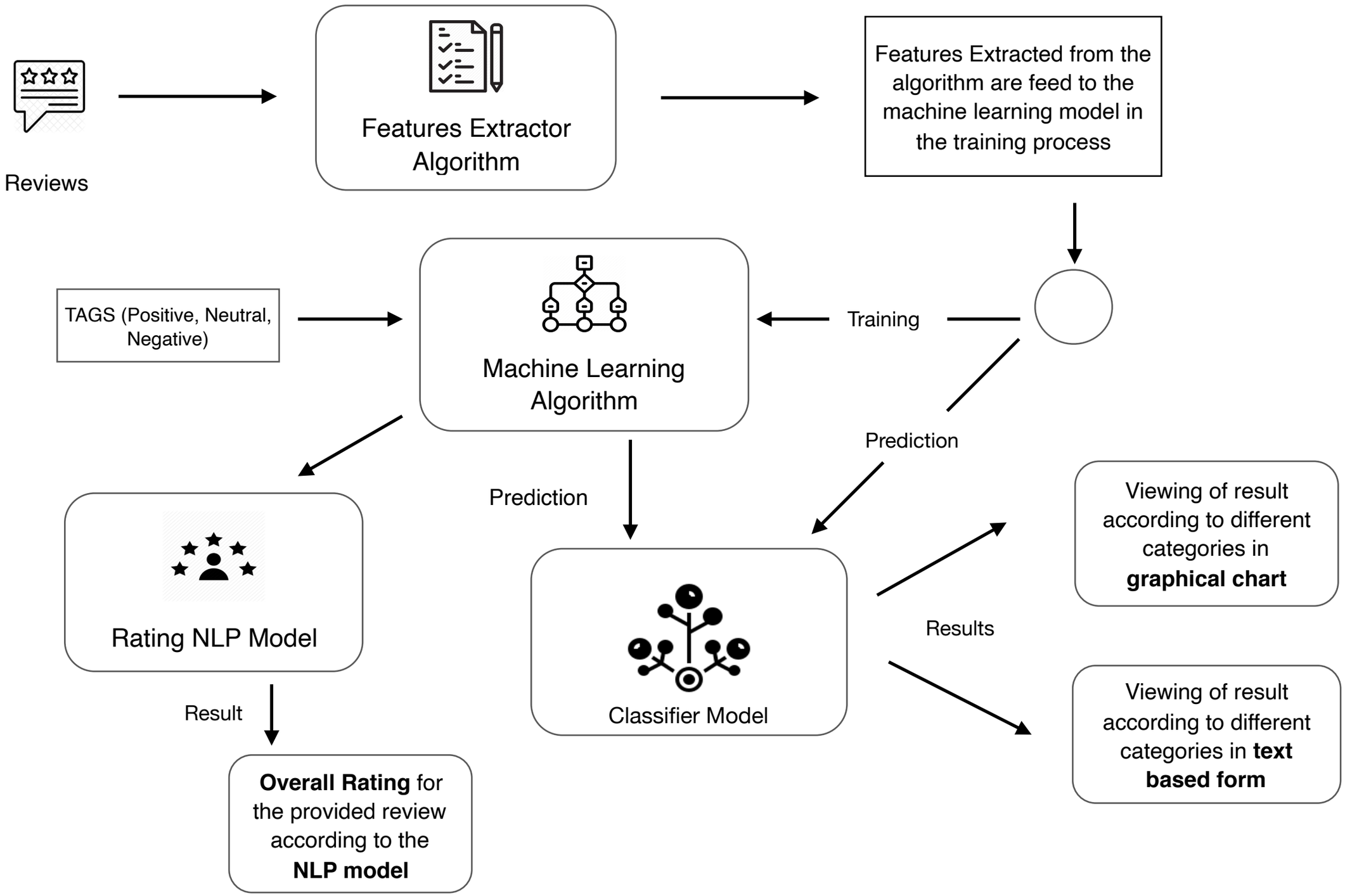
Idea/Approach Details

- Organisation name: ISRO
- Problem Statement: Sentiment Analysis from text feedback (NM396)
- Team Name: Cunning Linguists
- Team Leader Name: Iliyas Attarwala
- College Code: C-212

Proposed Solution	Major Advantages of our solution
A web portal where user can upload its dataset to be analysed and can also specify the sentiments needed	**One stop solution:** User can get ratings as well as sentiments of the feedback at single place of any kind of dataset
User feedback will be given to our machine learning model as input and it will process it and gives it to classifier model	**Real time Interactive analysis of feedback:** Various graphs and tables are used to show the optimum analysis of feedback
The classifier model then gives the various sentiments as output	**Custom Sentiments/ Categories:** User can himself select on what categories they want the data to be analysed so as to know where improvement is needed
The pre processed input is given to our NLP model which gives overall rating as output	**Accurate Rating:** The model is trained on more than 10 mn feedbacks to get more accuracy in predication
User will be shown the analytics using graphs and tables about the data to help him grow his business	**Ease of use:** The steps to get the sentiment and rating are kept very precise and user friendly so anybody from layman to developer can use it effectively

Prototype


Reviews
Features Extractor Algorithm
Features Extracted from the algorithm are feed to the machine learning model in the training process
TAGS (Positive, Neutral, Negative)
Machine Learning Algorithm
Training
Prediction
Prediction
Rating NLP Model
Classifier Model
Results
Viewing of result according to different categories in **graphical chart**
Result
Overall Rating for the provided review according to the **NLP model**
Viewing of result according to different categories in **text based form**

- **Tools and Technologies :**
- Frontend: HTML, CSS, JavaScript, Sass, BootStrap
- Backend: Python, Django
- Libraries: Spacy, NeuralCoref, Word2Vec, NLTK
- Analytics & Visualizations: pyplot, charts.js