greatlearning
Learning for Life

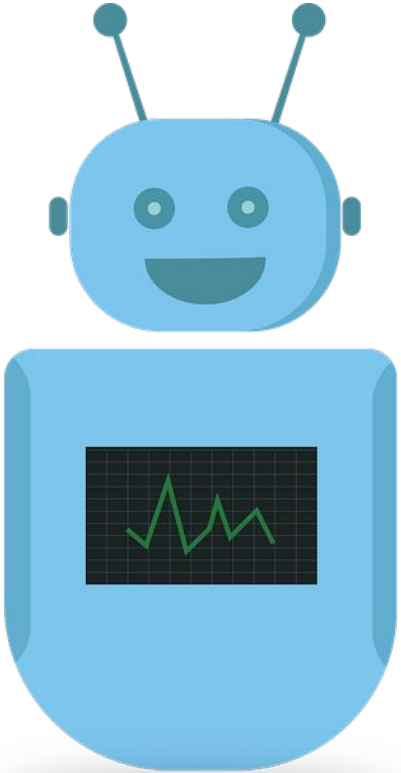
Text-based Chatbot Description

Machine Learning

Context

Chatbot support has become a new normal for companies. Today, most of the companies are using chatbots to enhance the user experience in their platform. Some companies have advanced chatbots for their internal purposes as well. As per a report by Gartner, Chatbots will be handling 85% of the customer service interactions by the year 2020. Also, 80% of businesses are expected to have some sort of chatbot automation by 2020 (Outgrow, 2018).

As part of this hackathon, we will build a chatbot that can answer or redirect to a link when we ask a machine learning related question to it.



Prerequisites and Data

Prerequisites:

- Supervised Learning
- Ensemble Techniques
- Corpus
- Preprocessing text data
- Tokenization

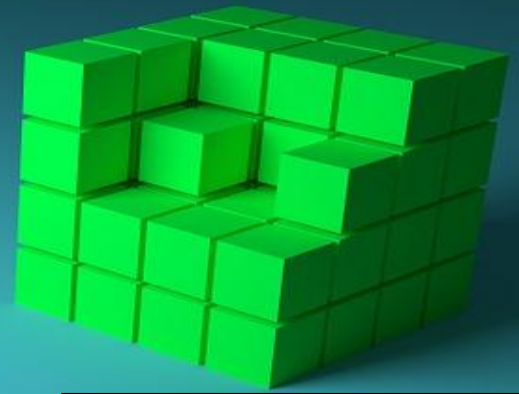
Sample Corpus:

```
{"intents": [
        {"tag": "greeting",
         "patterns": ["Hi", "How are you",
"Is anyone there?", "Hello", "Good day",
"Whats up"],
         "responses": ["Hello! \nPlease help
me with your location, \nHow can i help
you?"],
         "context_set": ""
        }
]
}
```

Steps

Chatbot = Corpus (training data) + ML model

1. Develop a corpus on machine learning related content. Your corpus should have- Input pattern, output pattern, and a tag
2. Build a chatbot using machine learning techniques. The chatbot should use the above corpus as trained data and return a response to the provided questions in test data.



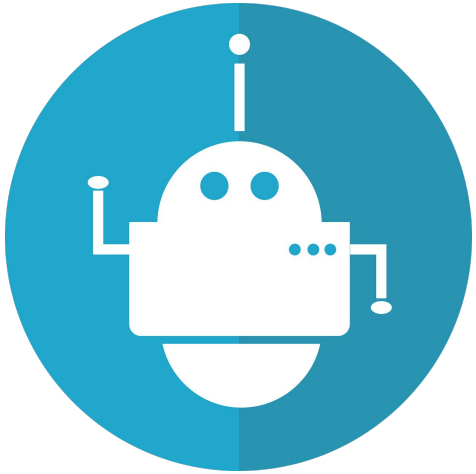
You: how are you
Bot: I am your virtual learning assistant

You: unable to understand knn
Bot: Link: Machine Learning wiki

Submission Guidelines and Evaluation Metric

Your submission should have below files -

1. Corpus file used to train the model
2. Ipynb file having the classifier model and interactive chat function to return the answers.
3. You need to test the chatbot on the test data provided by us.

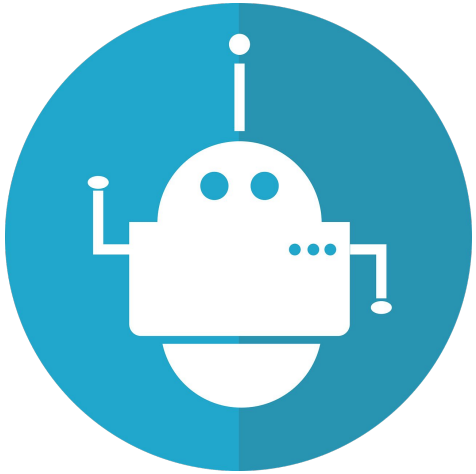


Evaluation Metric :

Your ipynb file will be manually evaluated and judged based on the classification accuracy (“Accuracy”) and response returned by the chatbot.

Chatbot Presentation

The top three teams will be picked up by the Acad Ops team based on the files submitted in Olympus. These teams will have to present their solutions to the entire batch.
The presentation should include the code walk-through, corpus, best practices, and challenges faced while building the chatbot.



FAQs and Reference Links

FAQs:

- Files to be submitted in Olympus
- Support POC - Arti
- Top 3 teams will be decided by Acad Ops team. Their decision will be final

References:

https://www.nltk.org/

https://en.wikipedia.org/wiki/Text_corpus

Krishnav's session

All The Best !!