# Introduction

Option#2

Create a chatbot that can simulate human conversation with users. It will be equipped with AI techniques such as natural language processing (NLP), to understand the user queries and provide automated responses.

I am going to cover the plan for creating such a chatbot

# Purpose and Objectives

Create a generative chatbot that can be used for entertainment purposes by generating content like poems. Songs etc., improving user engagement.

# Domain/ Architecture

The chatbot will work in an open domain which can engage in free-form conversation on a wide range of topics. My chatbot will use **generative models** to create responses.

# Tech stack and Libraries

* **NLP**
  + I am planning to use Libraries like spaCy, NLTK or Hugging face Transformers for text processing and understanding.
* **Generative Models:**
  + Planning to use models like Bert, GPT-3.5
* **Web Frameworks**
  + Planning to use framework like Flask or FastAPI
* **UI**
  + Thinking of using Streamlit, React or Vue.js for creating UI
* **Deployment**
  + <TBD>

# Data Collection and Preprocessing

* Gather relevant data for training.
* Data cleaning in order to remove noise and ensure consistency

# Training and Fine Tuning

* Training the model with the preprocessed datasets.
* Fine tuning the model to improve performance and accuracy

# User Interaction

* Design conversational flows:
  + Define intents (user requests) and map them to appropriate responses.
  + Implement context handling for maintaining conversation history.
* Handle user inputs (text, voice, or images) and generate relevant replies.

# Testing and evaluation

<TBD>

# Ethical Considerations

<TBD>

# Feedback Loop

<TBD>