AI Virtual Career Counsellor

# Introduction

Choosing the right career path is one of the most important decisions in a person's life. Many students and young professionals often feel lost or confused when selecting a career that aligns with their interests and skills. This project aims to develop an AI Virtual Career Counsellor, an interactive chatbot that recommends career paths based on the user's interests using Natural Language Processing (NLP) techniques.

# Abstract

The AI Virtual Career Counsellor is designed to engage with users and understand their preferences through simple text-based conversations. By analyzing keywords from the user’s input, the chatbot suggests suitable career options like Software Engineer, Graphic Designer, Accountant, Doctor, Teacher, and Entrepreneur. The chatbot was built using Python, NLTK for text processing, and Streamlit for the user interface. This project can help students and job seekers receive quick and personalized career advice in an interactive, user-friendly way.

# Tools Used

- Python  
- NLTK  
- Streamlit

# Steps Involved in Building the Project

* Requirement Understanding: Objective was to recommend careers based on user interests.
* Data Preparation: Defined career fields and related keywords.
* Chatbot Development: Developed a Python function to process input and recommend careers.
* Text Preprocessing: Used NLTK for tokenization and stop word removal.
* Frontend Interface: Built a user interface with Streamlit for easy interaction.
* Testing: Validated recommendations with multiple inputs.
* Optional Deployment: Can be deployed using Streamlit Cloud.

# Conclusion

The AI Virtual Career Counsellor provides relevant career suggestions based on user interests. Through this project, I gained practical experience with Python, NLP, chatbot development, and Streamlit web interfaces. This project is useful for learners who want to explore AI applications in career guidance and support.