MINI PROJECT – I

(2022-23)

GLA VOICE ASSISTANT

SYNOPSIS

Department of Computer Science & Application

Institute of Engineering & Technology

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Acknowledgement

It gives us a great sense of pleasure to present the synopsis of the B.Tech mini project undertaken during B.Tech III Year. This project is going to be an acknowledgement to the inspiration, drive and technical assistance will be contributed to it by many individuals. We owe special debt of gratitude to Dr. Robin Singh Bhadoria, for providing us with an encouraging platform to develop this project, which thus helped us in shaping our abilities towards a constructive goal and for his constant support and guidance to our work. His sincerity, thoroughness and perseverance has been a constant source of inspiration for us. We believe that he will shower us with all his extensively experienced ideas and insightful comments at different stages of the project & also taught us about the latest industry-oriented technologies. We also do not like miss the opportunity to acknowledge the contribution of all faculty members of the department for their kind guidance and co-operation.

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About the Project

This project aims to provide a user friendly environment and a simple way to access information about GLA University. This project is broadly divided into two modules. The first module is based upon giving the queries to the assistant. These queries will be given by simply speaking. The second module consists of the answer that will be given by the assistant in the form of voice output. This assistant helps us to get the required information with the help of single tap. You have to give the voice command to the application and then it responds according to the information stored in our dataset. We have used NLTK and python. In case question is not there in our dataset in that case it searches from the Google and gives the respective information. This application helps to provide information without even typing our query and just by giving voice input. It gives output in the form of voice.

Motivation

In this modern age the advancement in computing has made the use of user interface very much required. The presence of computers and facilities will obviously bring and mark a positive effect in our societies. Voice-enabled devices of all sorts are increasingly finding their way into our daily lives.

Voice commands are used to prompt different activities, from delivering news reports and playing music, to setting timers and checking train times As well as saving you time, they could also save you money by keeping your house energy efficient and secure.

Future Prospects

Today there are more computing devices in the world than humans. We all have seen the evolution of computers starting from the time when one or two computers serving the world, to more than one device serving each person on this earth today. Computer science had been expanding its wings with more and more processes being automated. From this graph of evolution have you ever tried to extrapolate the future trend of this branch of technology? What would be the shape of roles in software development in future? Will there be a necessary for software developers to write code? Surely it will ease the working of human being without going through papers and mostly provide the technology so that we can deal smartly. We are entering a new world. The technologies of machine learning, speech recognition, and natural language understanding are reaching a nexus of capability. The end result is that we'll soon have artificially intelligent assistants to help us in every aspect of our lives.

Requirements

a) Hardware:

- 1TB HDD
- 8 GB RAM
- Intel i5 8th Generation Processor
- Microphone
- Speaker

b) Software:

- Python 3.6.0 (32-bit)
- Microsoft Visual Studio 14.0
- LIBRARAIES
  - nltk
  - pyttsx3
  - SpeechRecognition
  - Wolframalpha
  - pyaudio
  - pywin32