

# Building and Training a Chatbot

Spoken Tutorial Project

<https://spoken-tutorial.org>

National Mission on Education through ICT

Jasmine Tresa Jose

Domain: Dr.T. Subbulakshmi

VIT Chennai

11 August 2024



# Learning Objectives

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- **Create an auto-updatable QnA database for a chatbot**



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- Compare input questions to database and find similarities





# System Requirements

**To record this tutorial, I am using**



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- **Ubuntu Linux OS 22.04**



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- Ubuntu Linux OS 22.04
- Python 3.12.3





# Pre-requisites

- You must have basic knowledge of using Linux Terminal and Python



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- Python libraries required for automation must be installed



# Code Files

- The files used in this tutorial are provided in the Code files link



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- Please download and extract the files



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- Please download and extract the files
- Make a copy and then use them while practicing



# About Chatbot

- **A Chatbot is a software application designed to simulate conversations**



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- A Chatbot is a software application designed to simulate conversations
- Typically they interact with human users through text or speech





# Building and Training a Chatbot



# Building and Training a Chatbot

- When the user asks a question, the bot will search for an answer in the database



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- When the user asks a question, the bot will search for an answer in the database
- If the question is not found, the user's answer is saved to the database



# Chatbot - Libraries



# Chatbot - Libraries

- `json` module which parses JSON strings with key/value pairs



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- `json` module which parses JSON strings with key/value pairs
- `difflib` module is used to compare sequences



# Summary

In this tutorial, we have learnt to

- Create an auto-updatable QnA database for a chatbot
- Compare input questions to the database and find similarities
- Teach the chatbot to learn an answer that it does not know



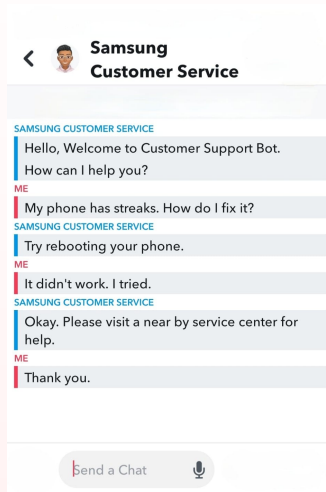
# Assignment

- Consider a product of your choice, for example a Samsung phone
- Create a Customer Service chatbot that can answer customer queries





# Assignment - Customer Service Chatbot



# About the Spoken Tutorial Project

- Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- It summarises the Spoken Tutorial project
- If you do not have good bandwidth, you can download and watch it



# Spoken Tutorial Workshops

## The Spoken Tutorial Project Team

- Conducts workshops using spoken tutorials
- Gives certificates to those who pass an online test
- For more details, please write to [contact@spoken-tutorial.org](mailto:contact@spoken-tutorial.org)



# Answers for THIS spoken tutorial

- Questions in THIS Spoken Tutorial
- Visit <https://forums.spoken-tutorial.org>
- Choose the minute and second where you have the question
- Explain your question briefly
- The Spoken Tutorial project will ensure an answer
- You will have to register to ask questions



# FOSSEE Forum

- For any general or technical questions on **Python for Automation**, visit the FOSSEE forum and post your question <https://forums.fossee.in/>



# Acknowledgement

- **The Spoken Tutorial project was established by Ministry of Education, Govt. of India**



# Thank you

- **This is Jasmine Tresa Jose, a FOSSEE Semester Long Intern 2024, IIT Bombay**

