



# DAS GENIE

*Personal Artificial Intelligence Bot*

## **DAS GENIE:** ABSTRACT

*Das Genie is a Trained Bot for Basic Questions & Commands. Responding and Speaking Ability Corresponding to Orders. Listening Ability to be implemented in the mere future to enhance Das Genie*

**Author:** Kaustav Dutta

**Course:** Applied Artificial Intelligence

**Mentor:** Dr. Simon Ziegler

## 1. Introduction

**DasGenie** is a personal bot that is still in the development phase. The main Features of this bot is that it responds to Commands & Queries (like a Genie), thus corresponds to be your helping hand in numerous occasions.

Currently, DasGenie only responds to Textual Queries which it also saves for future learning and self-growth. In Future, the Listening to Vocal Queries & Commands would be implemented with Peripheral (External) Computer Interaction with Arduino Uno or Raspberry Pi modules.

## 2. Processes

### *I. Understanding Packages*

Python Packages found from [PyPi](#) are quite helpful when trying to implement or build a project in python. The Chatterbot package in pypi was really helpful while building DasGenie; while, Ppttsx3 was helpful for Text-Speech conversion; whereas, Speech-Recognition helps in (as the name suggests) in understanding the User Spoken Input.

### *II. Implemented Required Feathers of the Packages*

Chatterbot package was used to Train DasGenie with the multiple Corpus prepared with Conversations & Responses. Different Voice textures provided in System to be the Mouth of DasGenie. Training Corpus prepared as per the model, which provides progressive learning with Testing Data stored in local database.

### *III. Tuned and Trained the Bot*

Corpus Data was generated with Numerous Testing and Tuning of the Processes above. DasGenie was trained with all kinds of data feed of conversations (only a few conversation corpuses added in the project). AS discussed, DasGenie learns from the conversations once installed and run.

### *IV. Prepared Proper Training Corpus*

Training Corpus was generated from various sources and personal conversations with DasGenie to increase the learning scope. Training Corpus files are simple Text files fed on DasGenie initialization.

### *V. Test and Packed DasGenie*

Testing with multiple scenarios and circumstances throughout the Development Process. Application Packaging was done with Pyinstaller and NSIS tool.

## 3. Packages

### *1) Chatterbot IO Adaptors*

### *2) Chatterbot*

- a) Bot Training,
- b) Bot Learning,
- c) Bot Testing,
- d) Bot Conversation Corpus

### *3) Ppttsx3*

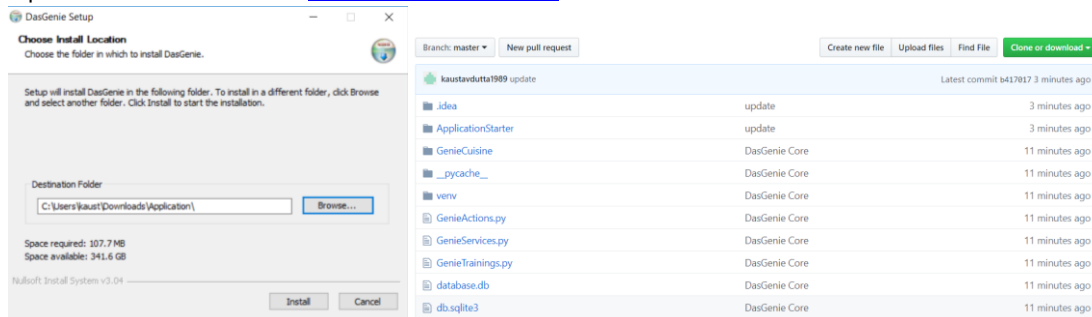
### *4) SpeechRecognition*

## 4. Application

- 1) **DasGenie** folder package is required, which can be used in either ways
  - a) Download the DasGenie zip and unzip at desired location.

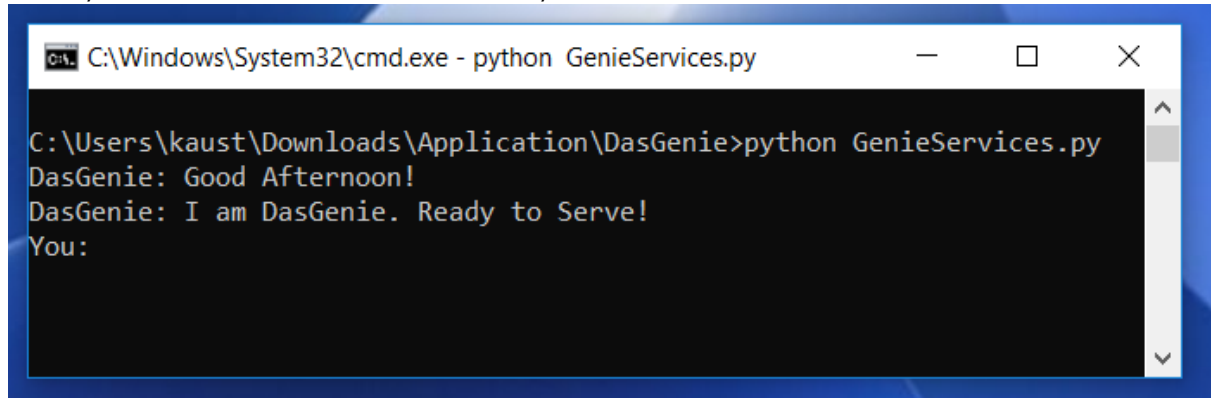
Name	Date modified	Type	Size
.idea	21/07/2019 17:16	File folder	
__pycache__	21/07/2019 17:16	File folder	
build	21/07/2019 17:16	File folder	
GenieCuisine	21/07/2019 17:16	File folder	
venv	21/07/2019 17:16	File folder	
database	20/07/2019 17:32	Data Base File	37 KB
GenieActions	20/07/2019 17:31	JetBrains PyCharm ...	2 KB
GenieServices	21/07/2019 16:30	Application	5.396 KB
GenieServices	15/07/2019 12:57	JetBrains PyCharm ...	1 KB
GenieServices.spec	21/07/2019 16:30	SPEC File	1 KB
GenieTrainings	15/07/2019 13:46	JetBrains PyCharm ...	1 KB

- b) Run the **DasGenie.exe** file, which creates a folder at your desired Location. Can be found in this [DasGenie-ApplicationStarter](#) Folder or clone the Updated Code from [DasGenie-GitHub](#) Folder



- 2) Open Command Prompt at Default Location:
  - a) Install Python, if not already (Recommended Python 3.5.X)
  - b) Update Pip: **python -m pip install --upgrade pip**
  - c) Dependency Library: **pip install chatterbot-io-adapters**
  - d) Dependency Library: **pip install chatterbot**
  - e) Dependency Library: **pip install pyttsx3**
  - f) Dependency Library: **pip install speechrecognition**
- 3) Change Command Prompt Directory to the **DasGenie** folder and run the Python File **GenieTrainings**. This one time training feeds her with all kinds of Conversation Corpuses. **Run this file only once to train the bot.**  
Command: **python GenieTrainings.py**
- 4) Same Command Prompt Directory of **DasGenie** folder and run the Python File **GenieServices**.  
**This is the File which will start the Services of DasGenie and keeps listening to you until you ask her to rest.**  
Even if you exit the Services, you can resume the services using the same command, you can skip the training and get DasGenie service, directly.  
Command: **python GenieServices.py**

- 5) Here you are... **DasGenie** will answer your **Questions** and **Commands**

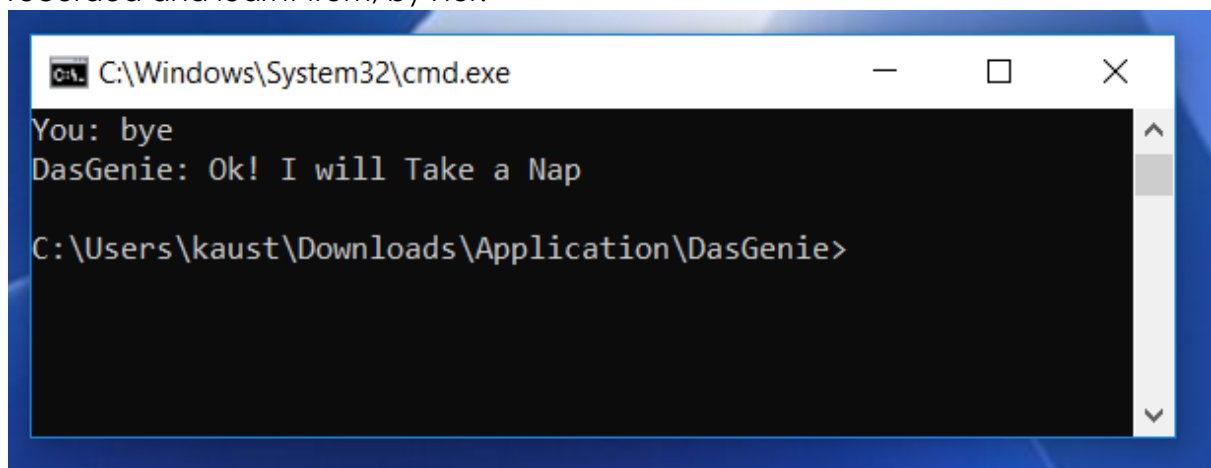


```
C:\Windows\System32\cmd.exe - python GenieServices.py

C:\Users\kaust\Downloads\Application\DasGenie>python GenieServices.py
DasGenie: Good Afternoon!
DasGenie: I am DasGenie. Ready to Serve!
You:
```

- 6) **DasGenie** can be Rested with the Commands **Bye, Exit, Chao**.

- 7) Training Corpus is being built for **DasGenie** as your Conversations are being recorded and learnt from, by Her.



```
C:\Windows\System32\cmd.exe

You: bye
DasGenie: Ok! I will Take a Nap

C:\Users\kaust\Downloads\Application\DasGenie>
```

## **5. References**

- 1) <https://pypi.org/project/ChatterBot/>
- 2) <https://pypi.org/project/pyttsx3/>
- 3) <https://pypi.org/project/chatterbot-io-adapters/>
- 4) <https://pypi.org/project/SpeechRecognition/>
- 5) GitHub Link: <https://github.com/kaustavdutta1989/DasGenie>

## **6. Conclusion**

DasGenie is a Growing bot for multiple usage scoping from Information sharing to IOT implementations. Though the hurdles and complexities are high, the motivation for DasGenie is more. Hopefully, DasGenie grows into a wonderful assistant.

**Thanking You!!!**