GRAPHICAL

USER

INTERFACE

FOR

BOLT

VOICE

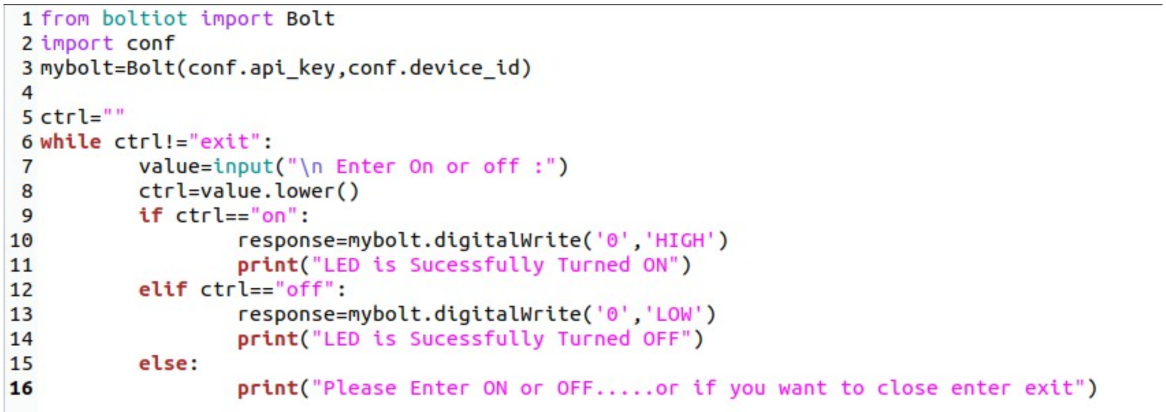
ASSISTED

TABLE OF CONTENT

OVERVIEW

This Project makes user to write lots of code in simple and easier way. It has speech recognition and text to speech so that user can execute those commands via their voice. It stores Query and executable code in Database so that user can use those command again and again.

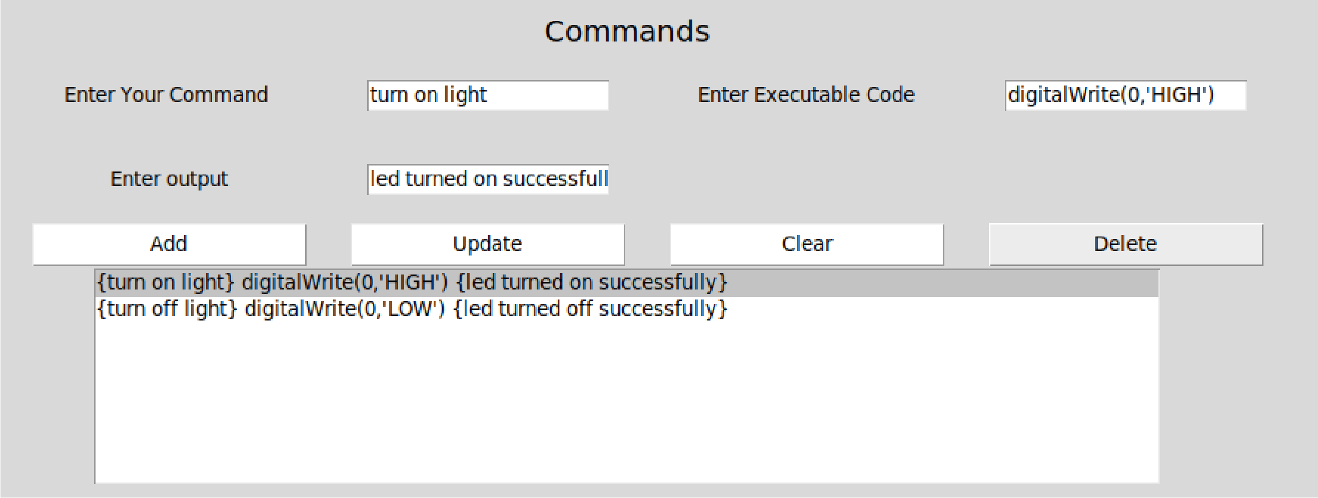
For Example:



```
from boltiot import Bolt
import conf
mybolt=Bolt(conf.api_key,conf.device_id)

ctrl=""
while ctrl!="exit":
        value=input("\n Enter On or off :")
        ctrl=value.lower()
        if ctrl=="on":
                response=mybolt.digitalWrite('0','HIGH')
                print("LED is Sucessfully Turned ON")
        elif ctrl=="off":
                response=mybolt.digitalWrite('0','LOW')
                print("LED is Sucessfully Turned OFF")
        else:
                print("Please Enter ON or OFF.....or if you want to close enter exit")
```

Instead of typing all these lines of codes user just need to type the main code “digitalWrite(0,‘HIGH’)” in Executable code field as shown below



Commands

Enter Your Command: turn on light

Enter Executable Code: digitalWrite(0,'HIGH')

Enter output: led turned on successfull

{turn on light} digitalWrite(0,'HIGH') {led turned on successfully}
{turn off light} digitalWrite(0,'LOW') {led turned off successfully}

PYTHON MODULES USED

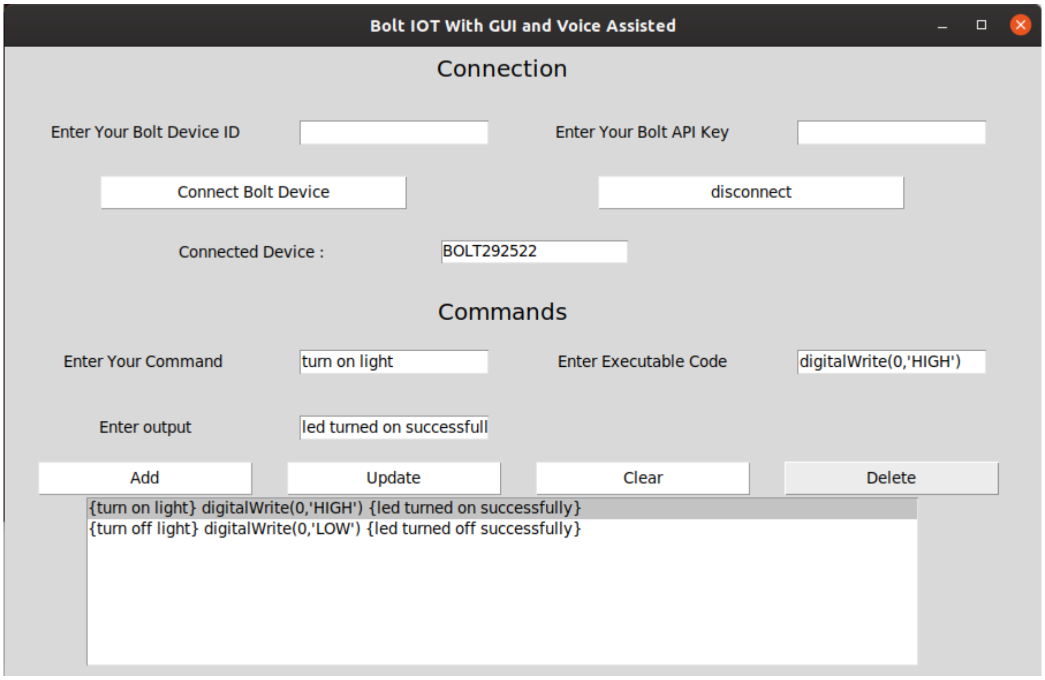
1. boltiot
2. tkinter
3. speechrecognition
4. os
5. pyttsx3
6. urllib.request
7. sqlite3

DEMONSTRATION LINK

https://youtu.be/6F_TE54LLQ8

ABOUT INTERFACE

Settings.py



Connected Device : BOLT292522

Enter Your Command: turn on light

Enter Executable Code: digitalWrite(0,'HIGH')

Enter output: led turned on successfull

```
{turn on light} digitalWrite(0,'HIGH') {led turned on successfully}
{turn off light} digitalWrite(0,'LOW') {led turned off successfully}
```

In Connection Section User needs to enter their BOLT Device ID and API Key and click on Connect Bolt Device button. the program will store the information of device for further use. If the Device is already Connected the device ID will be visible on Connected device field and if user wants to connect other device then user needs to click on Disconnect button to delete Device ID and API key which is previously added to Database and another Device details can be stored.

In Commands Section User has Access to Add, Update and Delete the Command on Query Database. There are three input fields in Command Section.

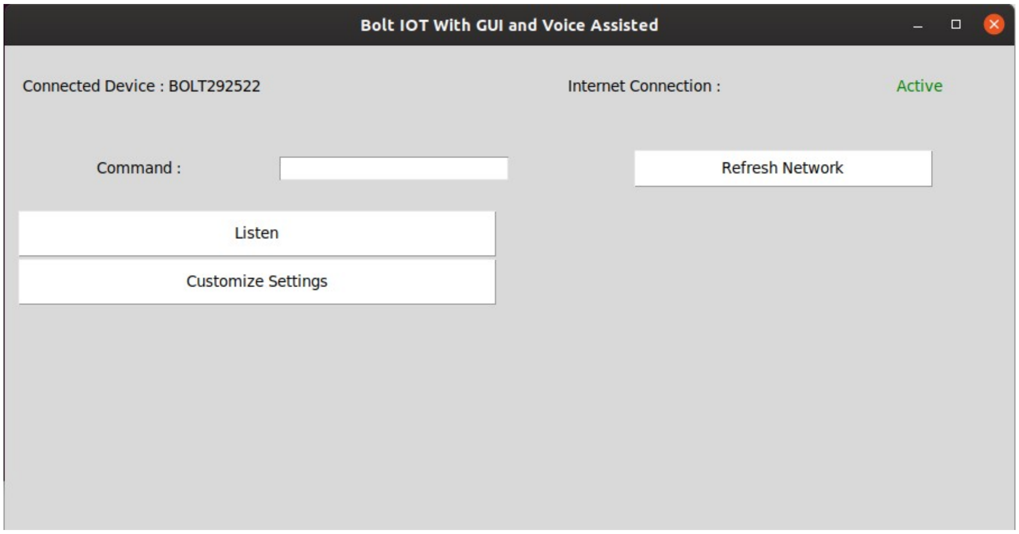
command represents the query which is compared with recognized voice to perform operations.

Executable code represents when the query is successfully matched with the recognized voice, this field will be executed.

Output represents when the code is successfully executed, computer will talk back this field.

And this section has list to show all queries present in database file.

Main.py



Connected Device : BOLT292522

Internet Connection : Active

Connected device field Shows Device ID which we added to database file.

Command field displays the recognized voice.

When user clicks on Listen button speech recognition function will be called to listen what user speaks and recognize it.

Customize settings button calls settings.py program.

Refresh Network button checks whether internet connection is active/inactive.