

Section: K18JF

Final Report

Virtual Assistant for Windows

Artificial Intelligence(INT404)

Lovely Professional University
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Student Declaration

This is to declare that this report has been written us. No part of the report has been copied from other sources. All the information included from other sources have been duly acknowledged. We aver that any part of the report is found to be copied, we shall take full responsibility for it.

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Description of the project

The virtual assistant is named as María after a famous character from a Spanish novel. It can perform various tasks based on the command given by the user. It can do tasks such as creating files or folders, playing music and can also run commands.

Objective of the project

Our project is to build a virtual assistant for windows using python. The main motive of this project is to make a AI that can understand what the user is typing and convert it into commands and do it. It can breakdown words and extract the information regarding what the user wants the assistant to do.

Significance of the project

The virtual assistant can understand user input, run commands and also respond to the user with appropriate reply. The reply for the user input is already given to the virtual assistant and it access the situation and uses it to respond to the user. The assistant can also speak out sentences as it is programmed to convert text into speech to make the experience for the user very comfortable.

Frameworks used

The following are the python modules that are used in the project:

- ◆ NLTK library
- ◆ os
- ◆ time
- ◆ GTTS
- ◆ googlesearch - to make the assistant do web search and return results

NLTK library:

Used to import break down sentences into root word to extract information from the user's input and understand it.

OS:

This module is used to run system commands during Python runtime

Time:

Used to make the virtual assistant wait for some time before running the command

GTTS:

This module converts text into speech to make the Virtual assistant communicate in real time with the user.

GoogleSearch:

This module is used to retrieve search results from Google search engine and display it to user

Role of students

Ridhubharan - Primary programmer

Rahul Kumar - Programmed voice module

Akash Mor - Documentation and bug removal

Narendra Singh - Software Tester

Shubham Jain - Management and bug removal

SWOT analysis

Strength :

The virtual assistant stores all information about the user locally so the privacy of the user is protected and it is very secure.

Weakness :

The maintenance of the assistant needs a large number of task force and a lot of time to remove bugs

Opportunity :

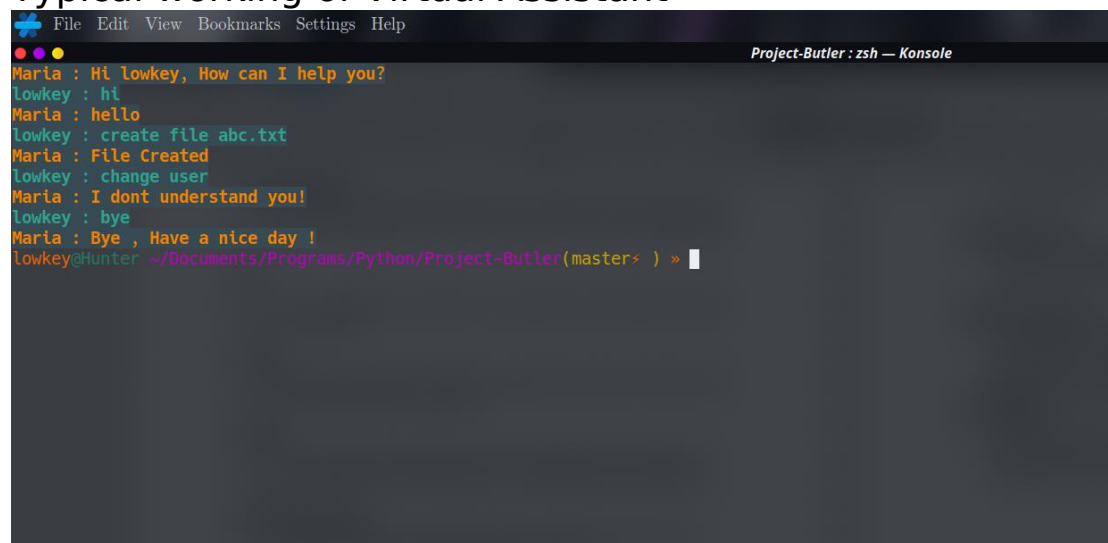
Artificial Intelligence has a very good scope right now and even in the future. Which assures that virtual assistants are going to be a major part of our lives. This shows that our project has a lot of opportunity and scope.

Threats :

The market is very volatile and there are a lot of programmers working on Virtual Assistants which can increase the threats in the market.

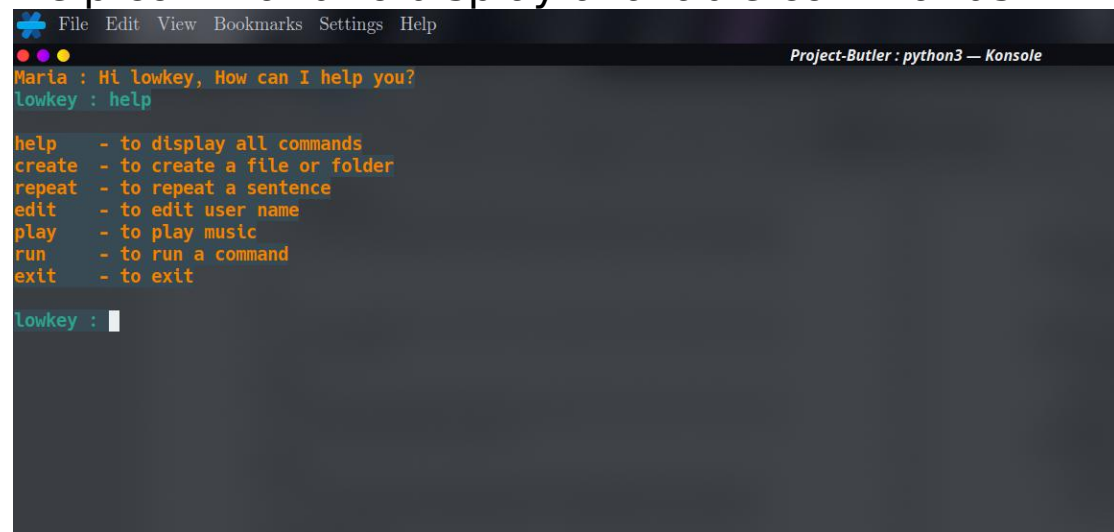
ScreenShot

Typical working of Virtual Assistant



```
File Edit View Bookmarks Settings Help
Project-Butler : zsh — Konsole
Maria : Hi lowkey, How can I help you?
lowkey : hi
Maria : hello
lowkey : create file abc.txt
Maria : File Created
lowkey : change user
Maria : I dont understand you!
lowkey : bye
Maria : Bye , Have a nice day !
lowkey@Hunter ~/Documents/Programs/Python/Project-Butler(master< ) »
```

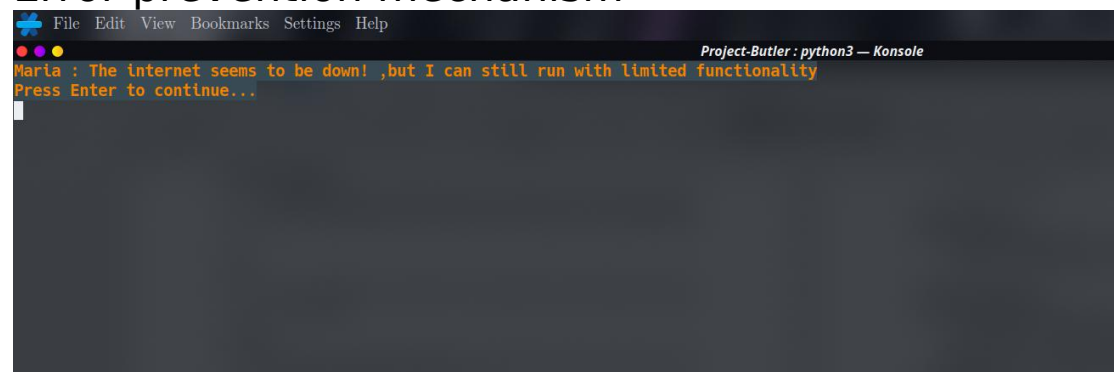
Help command to display available commands



The screenshot shows a terminal window titled "Project-Butler : python3 — Konsole". The window has a menu bar with "File", "Edit", "View", "Bookmarks", "Settings", and "Help". The text in the terminal is as follows:

```
Maria : Hi lowkey, How can I help you?  
lowkey : help  
  
help      - to display all commands  
create    - to create a file or folder  
repeat    - to repeat a sentence  
edit      - to edit user name  
play      - to play music  
run       - to run a command  
exit      - to exit  
  
lowkey : 
```

Error prevention mechanism



The screenshot shows a terminal window titled "Project-Butler : python3 — Konsole". The window has a menu bar with "File", "Edit", "View", "Bookmarks", "Settings", and "Help". The text in the terminal is as follows:

```
Maria : The internet seems to be down! ,but I can still run with limited functionality  
Press Enter to continue...  
 
```