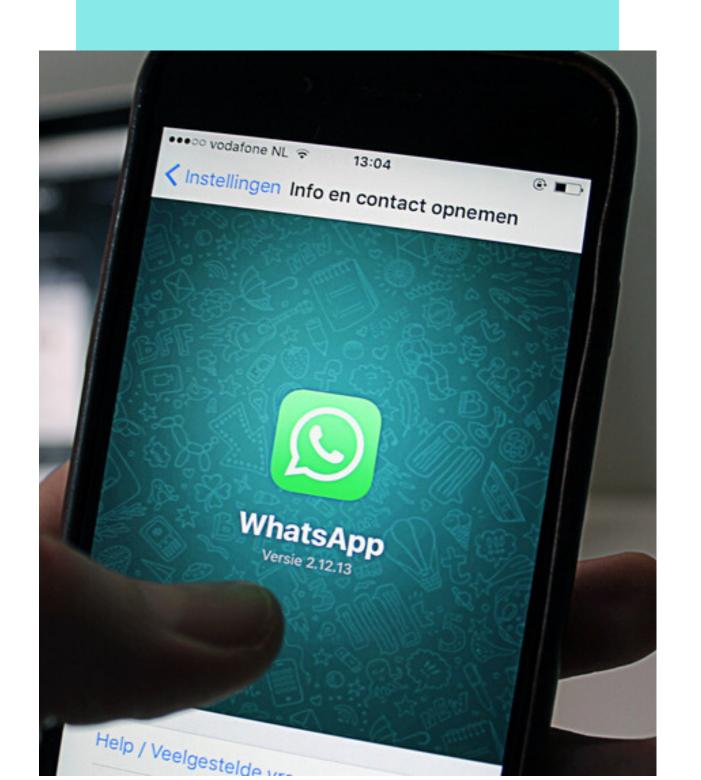
ENHANCING CUSTOMER EXPERIENCE



whatBought

A Chatbot based on WhatsApp Platform

The Power of Social Media

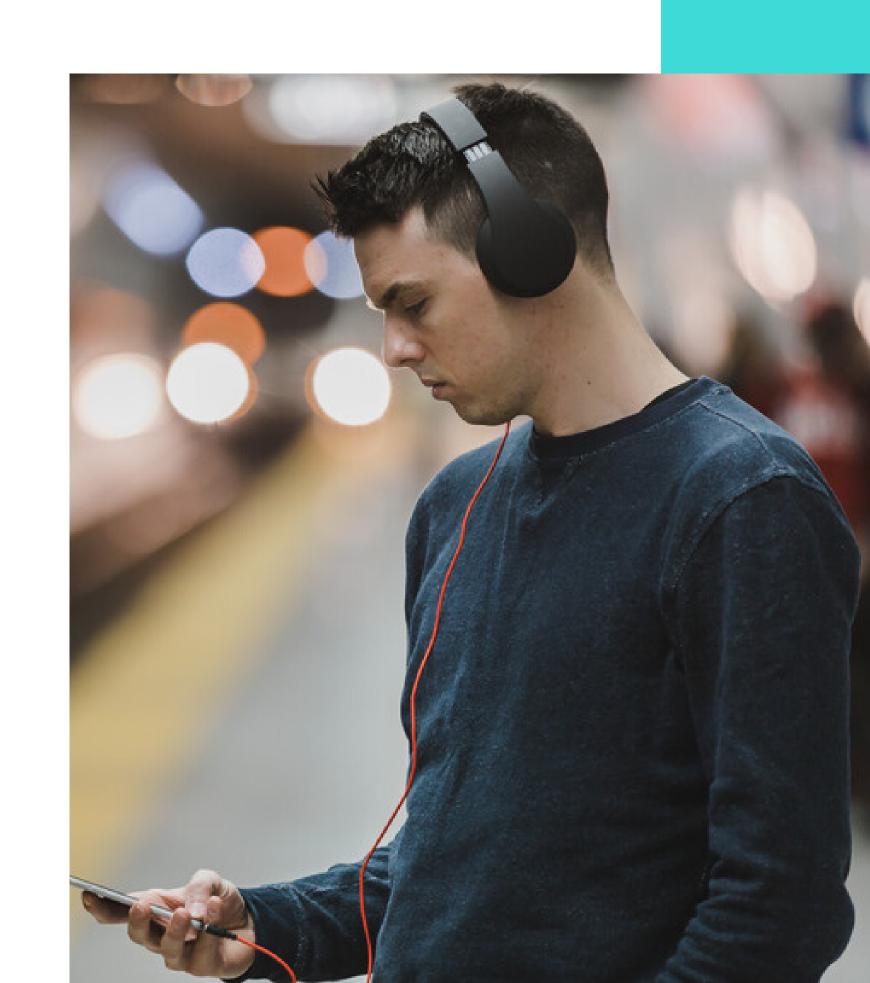
Build a conversational solution that enables customers to discover and order products.

Problem
Statement



whatBought

whatBought is a WhatsApp based chatbot which will help customers to search for products from Lowe's website. It will also enable them to place orders from the website.





FAMILIARITY

Millions of users are using whatsapp at present across the globe. They will get a personalized touch.



LARGE REACH

WhatsApp population is growing day by day country by country.



SIMPLICITY

No complex menus and interfaces. No array of options. Just one text will do the job



CONVENIENT FOR DIFFERENTLY ABLED

Those who cannot type can make use of Google voice assitant to convert speech to text and send the text thereafter.

Advantages of what Bought

SOLUTION FLOW

*Assumption: whatBought contact number is made available to public

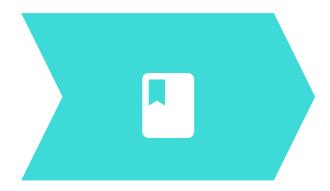
1 - Beginning of Interaction

2 - Acknowledgement

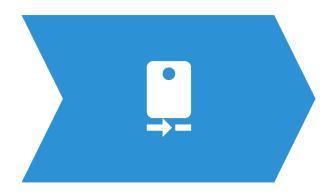
3 - Search for Products

4 - Browse the Products

5 - Place the Order









Customer sends a Code to designated Mobile Number via WhatsApp.

whatBought responds through an acknowledgement message Customer enters the product search query in a way as if he/she is talking to a normal person.

Basically, customer texts in WhatsApp.

whatBought responds back with a list of products and their corresponding details (title, ratings, image, URL etc.) Customer also has an option to order the products

Code: join closer-wood

Eg: "Do you have Egyptian Tiles?"

Eg: "I want to see more"

Eg: "I want to order"

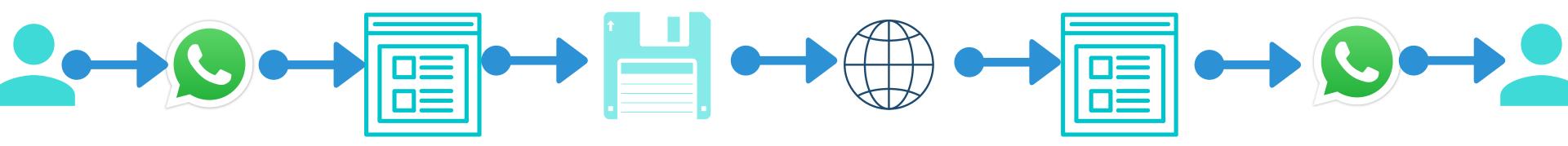
ARCHITECTURE OF THE SOLUTION

1 User sends product search query over whatsapp

Entity
Recognizer will
extract Entity
Names from
the user query.

Product list with details is sent to Flask Server

User receives product details.
User has an option to place order as well.



2

With the help of Twilio and ngrok, user query is passed on to Flask Server.

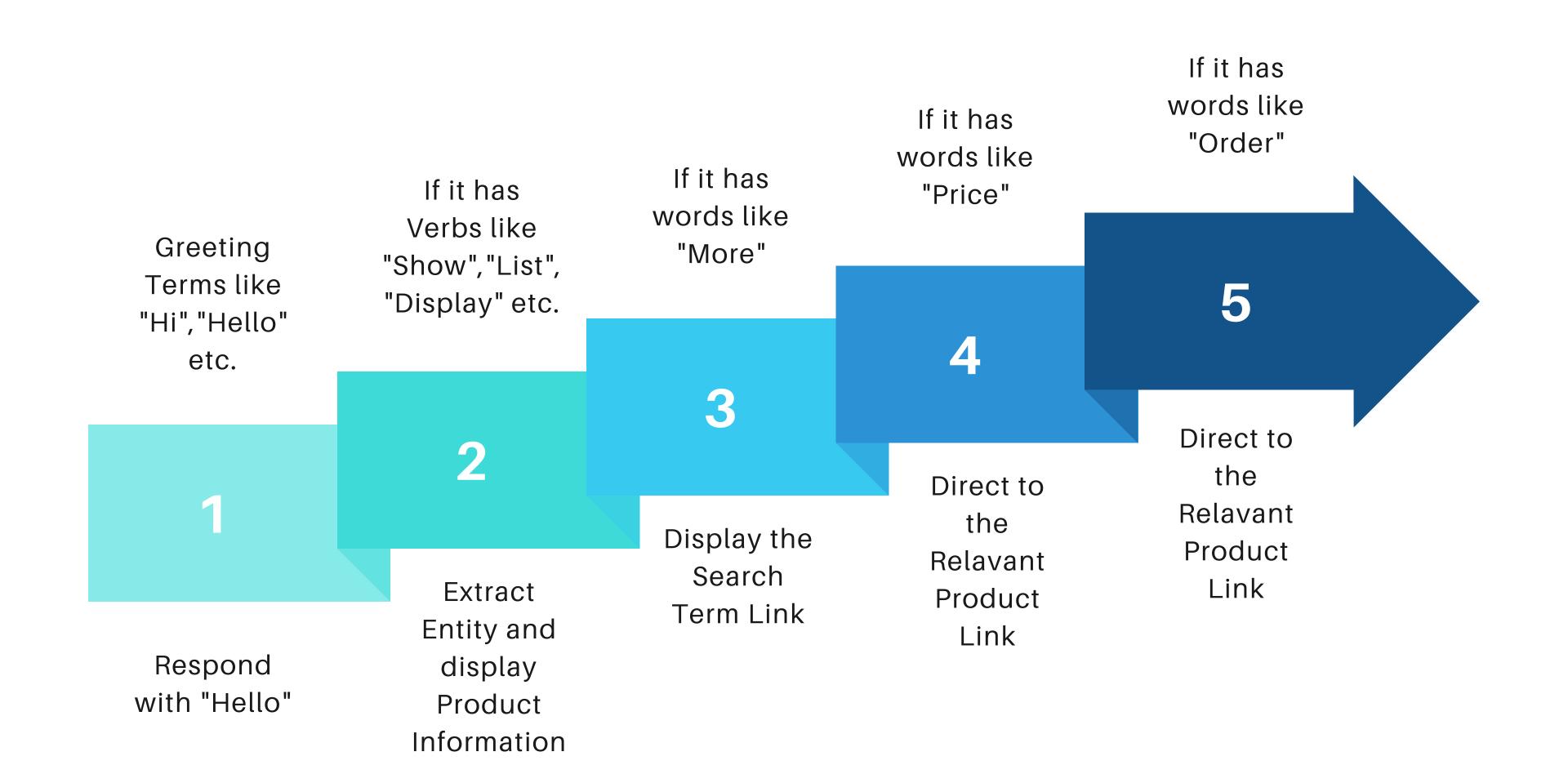
4

Product List is Fetched from Lowe's Database.
Since I don't have access to the database currently, I have made use of Web Scraping Techniques to access Product data.

6

With the help of Twilio and ngrok, user query is sent as Whatsapp message to user

EXTRACTING KEY TERMS



EXTRACTING ENTITY NAMES

Input: "I want an Egyptian Tile"

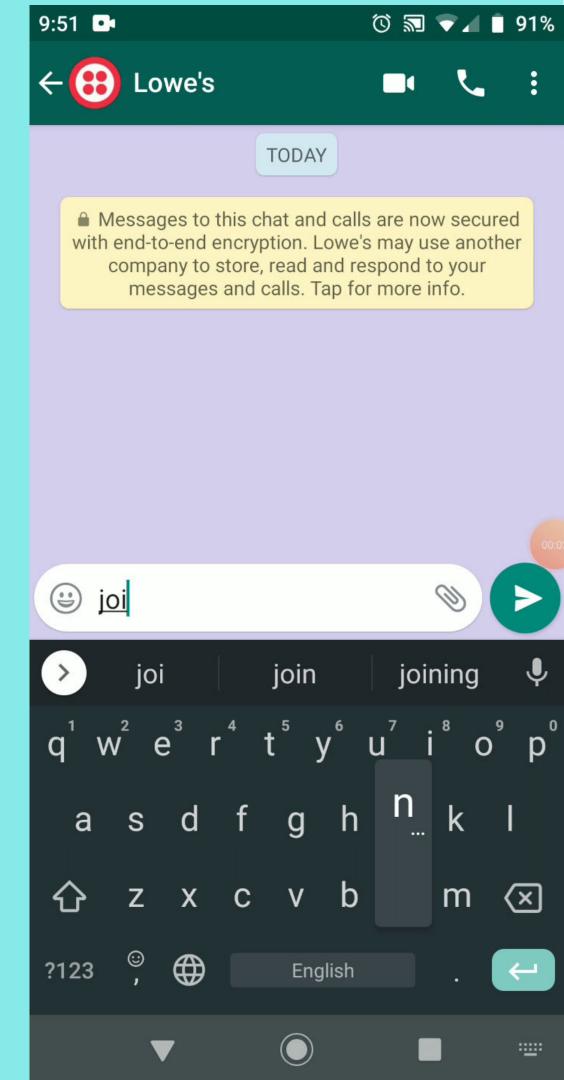


Tokenize	Tag the Tokens	Extract Nouns, Verbs and Adjectives	Get Products
['I', 'want', 'an', 'Egyptian', 'Tile']	[('I', 'PRP'), ('want', 'VBP'), ('an', 'DT'), ('Egyptian', 'JJ'), ('Tile', 'NN')]	Egyptian Tile	Output of the previous step becomes the Search Term. Based on the Search Term, We retrieve the products from Lowe's Website.

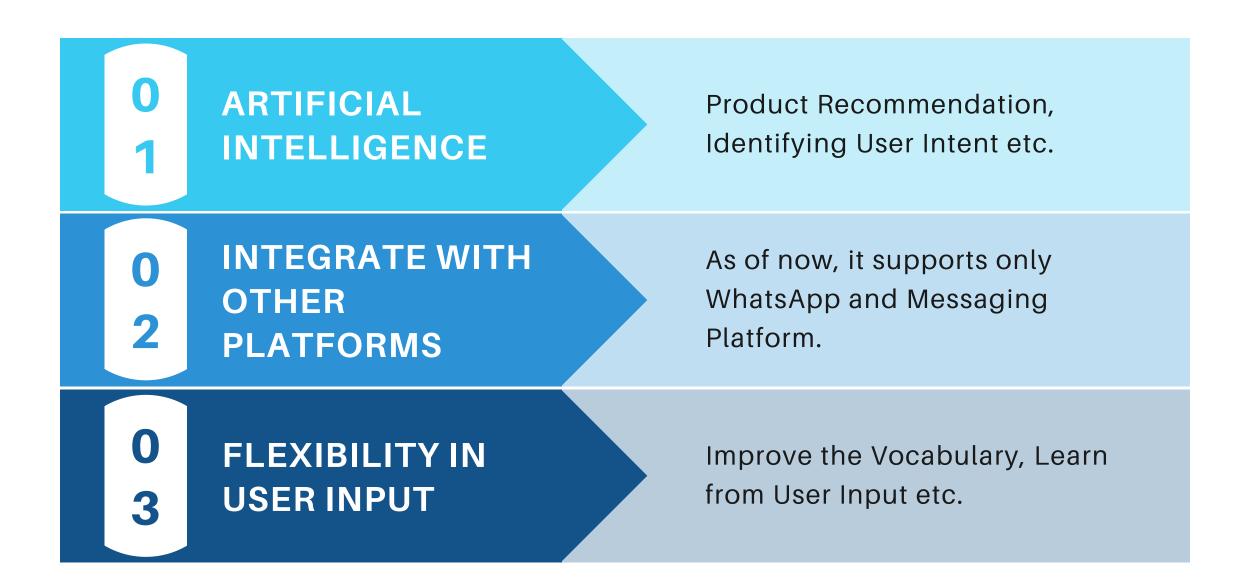
Please Click the Following Link to Play the Video:

https://drive.google.com/open?id=1uw3a4Y3hMNzFz8NYxLwTNfXyXfBYprNN

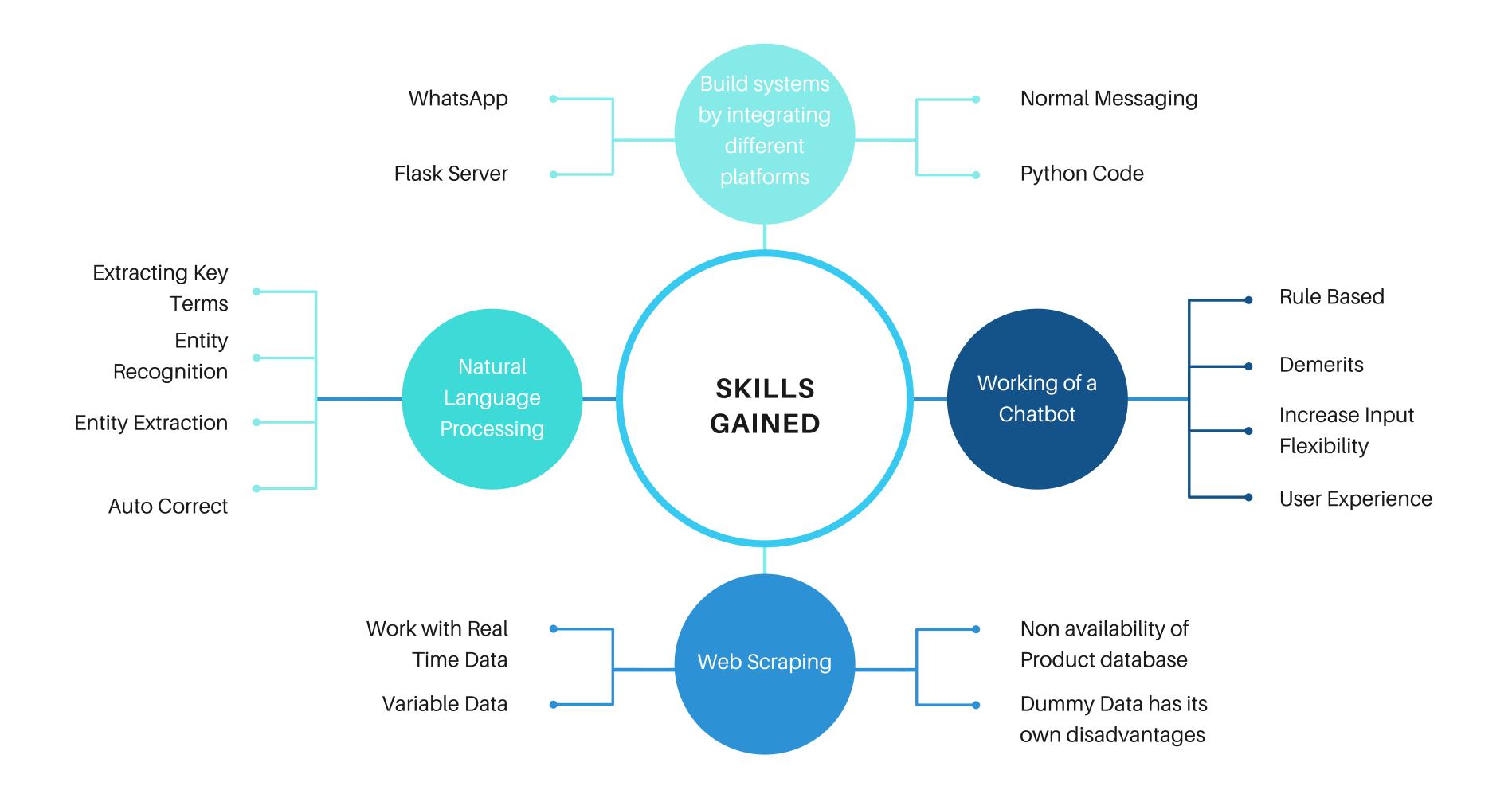
Prototype Video



Future Works









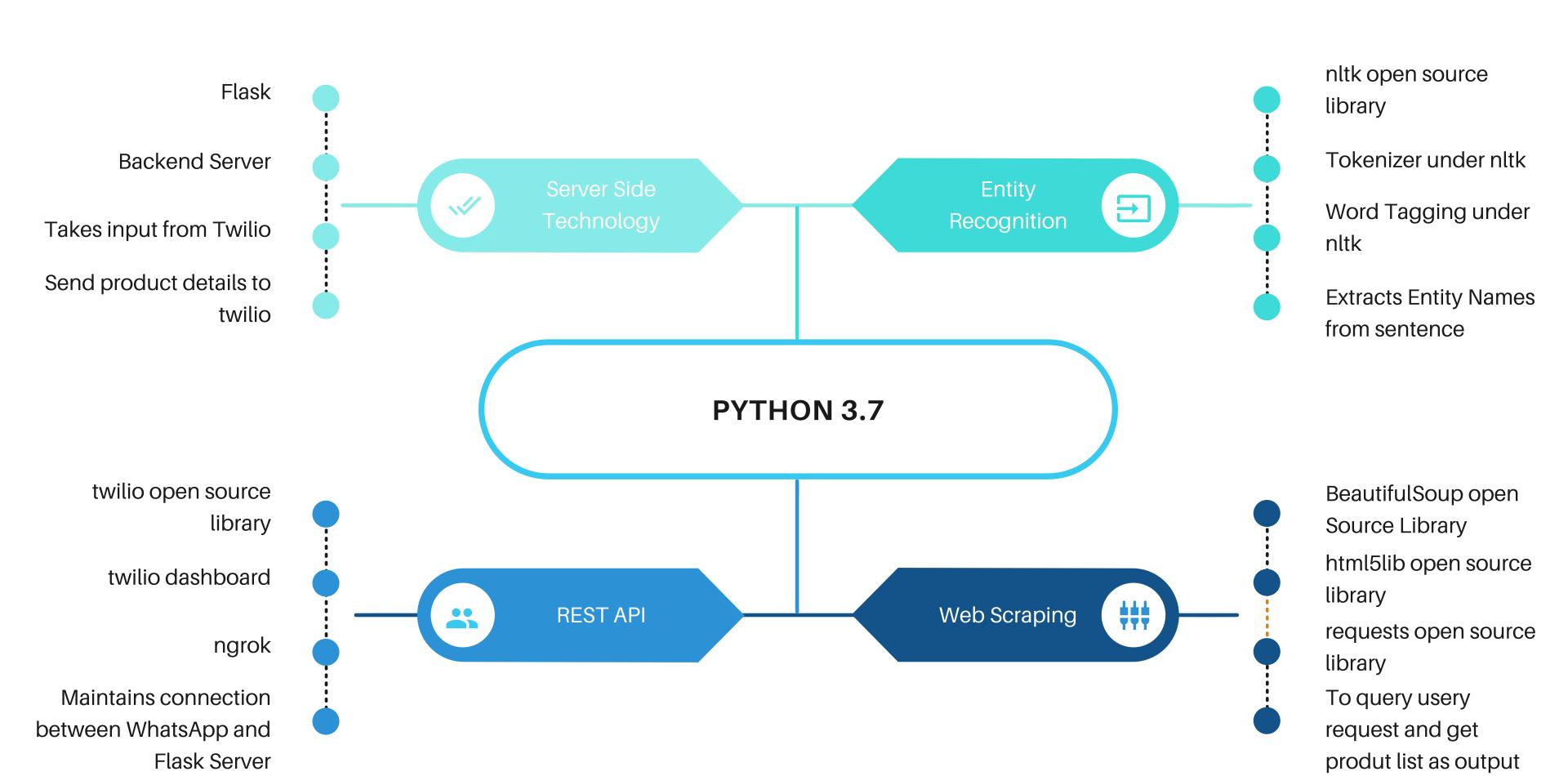
Thank You

Appendix

SOFTWARE SPECIFICATIONS

- Ubuntu 16.04 and above
- Python 3

TECHNOLOGY STACK



ARCHITECTURE OF THE SOLUTION

Natural Language Processing	Web Scraping	Server Side Technology	REST API
Entity Recognition techniques to extract Entity names from Customer input (whatsapp message)	Web Scraping techniques to extract product list from Lowe's website. Extracted product list is relavant to user search query.	Flask web server to receive the customer query, process it and send the product list.	To connect and communicate through WhatsApp, we use Twilio and ngrok which is based on REST API. A medium of connection between WhatsApp and Flask Server.