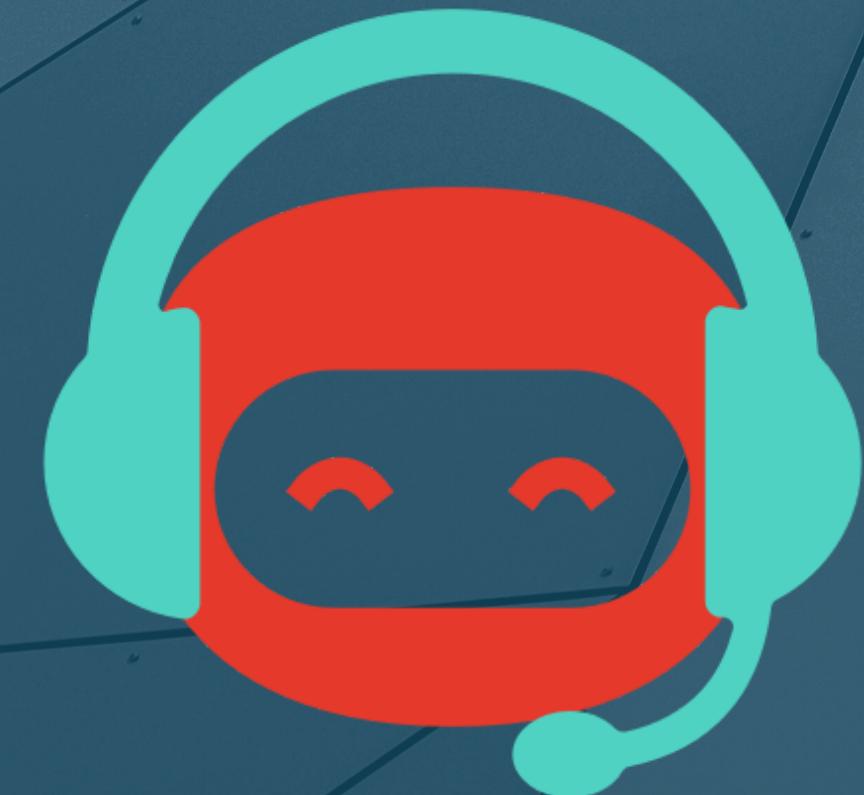


# Integrated Chat-Bot



**i-Bot**

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# Executive summary

Technology is being used to automate just about everything possible to make life easier.

As consumers, we are constantly searching for the next best widget that is going to make life easier.

Easier = Better

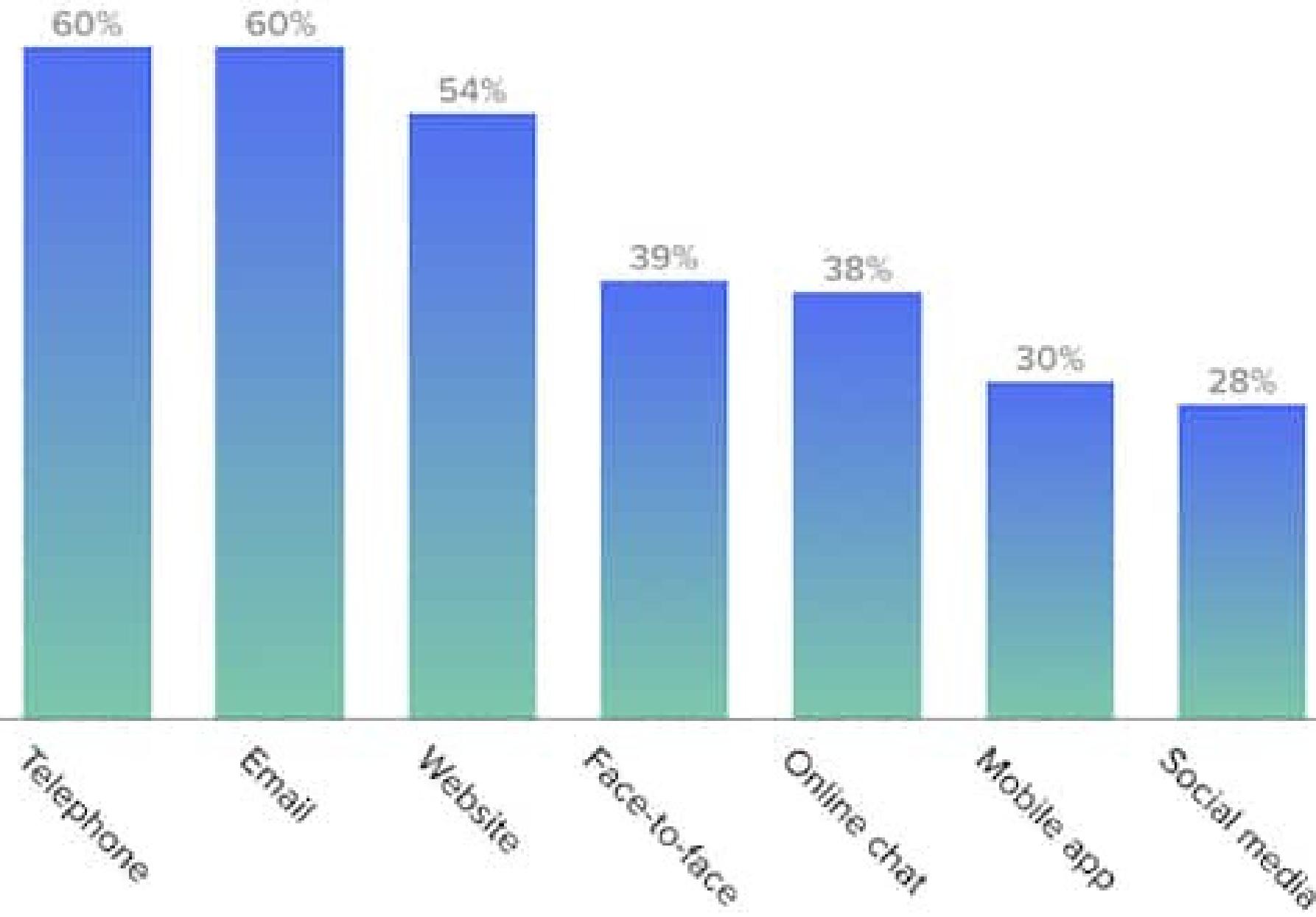
# Project overview

Chatbots are software applications that use artificial intelligence & natural language processing to understand what a human wants, and guides them to their desired outcome with as little work for the end user as possible. Like a virtual assistant for your customer experience touchpoints.



# Business Communication Channels

How have you communicated with businesses in the past 12 months?

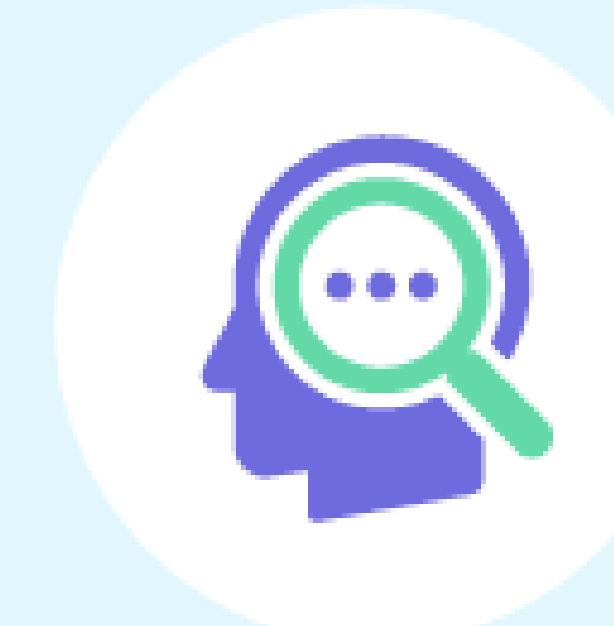
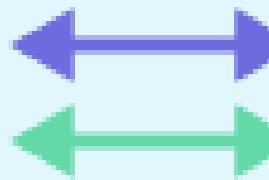
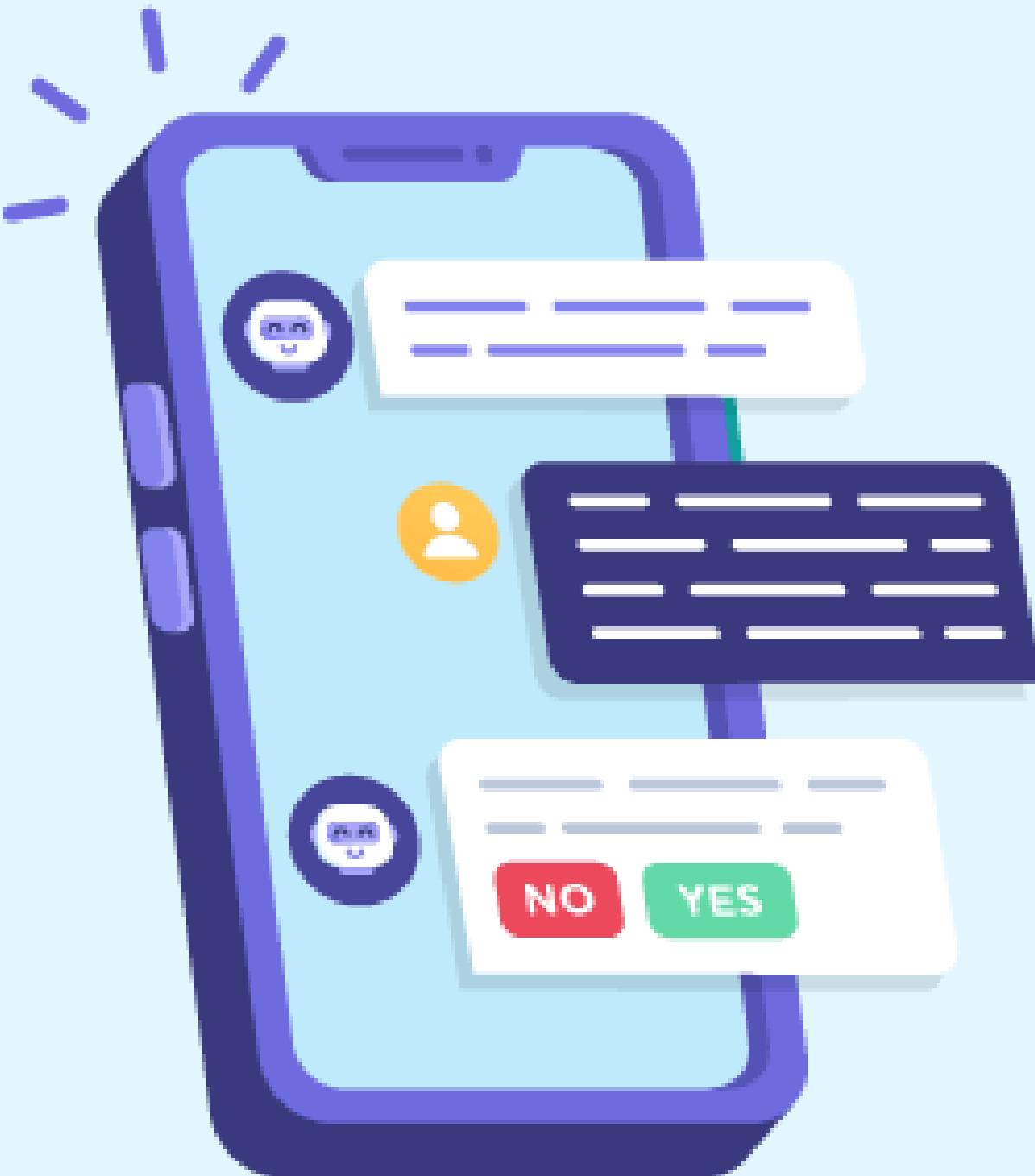


# Problem

The most common frustrations reported by consumers included:

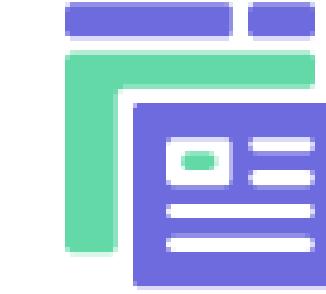
1. Websites being hard to navigate (34%)
2. Not being able to get answers to simple questions (31%)
3. Basic details about a business — like address, hours of operations, and phone number — being hard to find (28%).

# How do Chatbots work?



**NLP Player**  
Natural Language  
Processing

**Data Storage**  
Interaction History &  
Analytics



**Knowledge Base**  
Source of Content



# Libraries used



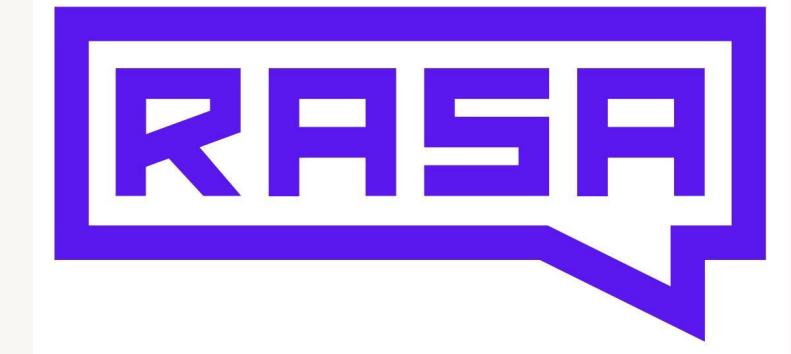
## Scikit Learn

Scikit-learn (Sklearn) is the most useful and robust library for machine learning in Python. It provides a selection of efficient tools for machine learning and statistical modeling.

# spaCy

## spaCy

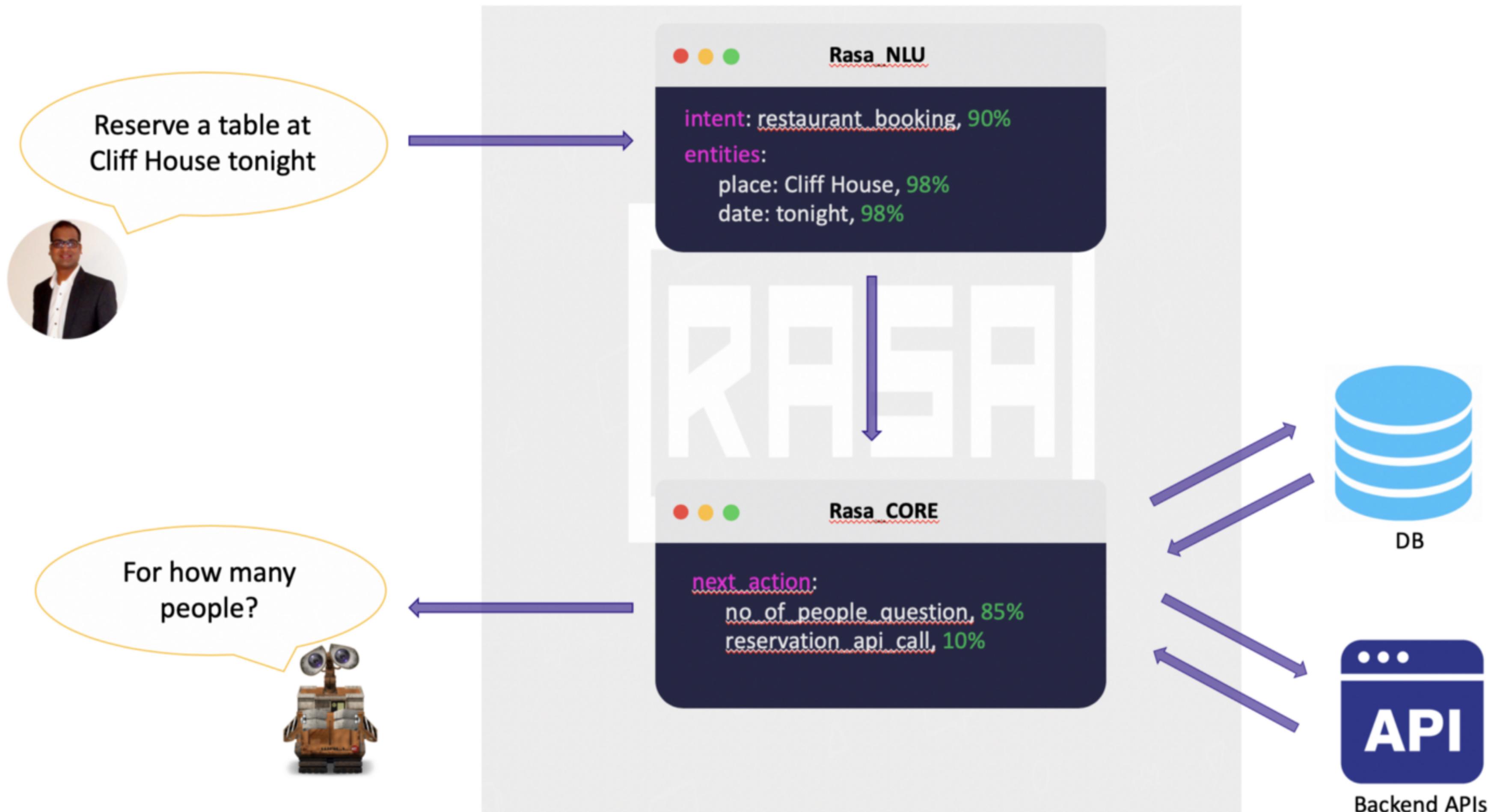
spaCy is a library that is built particularly for developers to develop interactive NLP applications, which can effectively process and 'understand' enormous volumes of text.



## Rasa Framework

Rasa is a framework for developing AI powered, industrial grade chatbots. It's incredibly powerful, and is used by developers worldwide to create chatbots and contextual assistants.

# Rasa Framework



# Project Snapshots

```
15
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17 print(Fore.YELLOW + "Start messaging with the bot (type quit to stop)!" + Style.RESET_ALL)
18
19 Human: hey
20 Bot: Good to see you again
21 Human: how are you
22 Bot: I apologise for the inconvenience caused. We will reach out to you shortly
23 Human: could you help me
24 Bot: Tell me your problem to assist you
25 Human: i am bored, tell me something interesting
26 Bot: It's a pleasure helping you
27 Human: have a complaint
28 Bot: I apologise for the inconvenience caused. We will reach out to you shortly
29 Human: you are amazing
30 Bot: I am a chatbot
31 Human: what is your name
32 Bot: I was named iBot
33 Human: that's helpful
34 Bot: Mention not. It's my duty.
35 Human: thanks
36 Bot: Happy to help!
37 Human: quit
```

```
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print(Fore.YELLOW + "Start messaging with the bot (type quit to stop)!" + Style.RESET_ALL)
chat()

> Start messaging with the bot (type quit to stop) !
Human: hi
Bot: Hi there, how can I help?
Human: who are you
Bot: I am iBot, your bot assistant
Human: how you could help me
Bot: Tell me how can I assist you
Human: i need to create a new account
Bot: Just go to our web site and follow the guidelines to create a new account
Human: thank you
Bot: Mention not. It's my duty.
Human: bye
Bot: Bye! Come back again soon.
Human: quit
```

# Proposed timeline



## PHASE 1

Building fundamental model with proposed libraries and framework

## PHASE 2

Building frontend and user interface for model.  
Enhancing libraries and dataset.

## PHASE 3

Integration with existing databases with automation and testing

# The team

**AAMNA AKHTAR**

Backend and Model  
selection along with better  
prediction results

**ATHAR ZAHID USMANI**

Frontend with user interface  
and UX design

**ARSHIYA DILSHAD**

Testing and Automation

Thank you!