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**RAMRAO ADIK INSTITUTE OF**  
**TECHNOLOGY NERUL**

A MINI- PROJECT REPORT ON

**APPOINTMENT BOT**

SUBMITTED BY:

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UNDER THE GUIDANCE OF:

**Mrs. Anita Patil**



**DEPARTMENT OF INFORMATION TECHNOLOGY RAMRAO ADIK**  
**INSTITUTE OF TECHNOLOGY, NERUL. NAVI-MUMBAI**

**(2020)**

# CERTIFICATE

This is to certify that the project entitled '**Appointment Bot**' being submitted by '**Srushti Narvekar(16IT6154), Akshay Dangare(17IT1075), Sneha Kanase(16IT6152)**' to the University of Mumbai in partial fulfilment of the requirement for the award of the degree of, **B.E.I.T. in "INTELLIGENT SYSTEM LAB"**

Project Guide

(Anita Patil)

External Examiner

( )

Head of Department

(Dr. Ashish Jadhav)

## DECLARATION

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

**Name and Roll No. of Student:**

1. Srushti Narvekar(16IT6154)
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3. Sneha Kanase(16IT6152)

**Signature:**

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DATE: 27/11/2020

## ACKNOWLEDGEMENT

The project “**Appointment Bot**” is creative work of many minds. A proper synchronization between individual it must for any project to be completed successfully. One cannot imagine the power of the force that guides us all and neither can we succeed without acknowledging it.

We would like to express our gratitude to principal **Dr. Mukesh Patil** and **Dr. Ashish Jadhav**, our Head of the department, Information Technology Engineering for encouraging and inspiring us to carry out the project in the department lab.

We would also like to thank our Guide **Mrs. Anita Patil**, Department of the Information Technology Engineering for her expert guidance, encouragement and valuable suggestions at every step.

We also would like to thank all the staff members Department of the Information Technology Engineering for providing us with the required facilities and support towards the completion of the project.

Last but not the least we are thankful to our parents and friends for their constant Inspiration, encouragement and well wishes by which we have made a challenging project.

Name of the Student and Roll No.:

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2. Akshay Dangare(17IT1075)
3. Sneha Kanase(16IT6152)

## PREFACE

We take great opportunity to present this mini project report on “**Appointment Bot**” and put before readers some useful information regarding our project.

We have made sincere attempts and taken every care to present this matter in precise and compact form, the language being as simple as possible. We are sure that the information contained in this volume certainly prove useful for better insight in the scope and dimension of this project in its true perspective.

The task of the completion of the project though being difficult was made quite simple, interesting and successful due to deep involvement and complete dedication of our group members.

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## INTRODUCTION

A chatbot is a program that communicates with you. There are two kinds of Chatbots. Rule-based chatbot - This kind of chatbot essentially works as an interactive Frequently Asked Questions. It is programmed to recognize certain terms and patterns from which they can respond with pre-set answers. AI chatbot act as an artificial brain, using sophisticated cognitive and natural language processing capabilities. It not only understands requests but also the context, intent, emotion and it continuously gets smarter as it learns from conversations it has with users. Consumers spend lots of time using messaging applications. Therefore, messaging applications are currently the most popular way companies deliver chatbot experiences to consumers. So Chat fuel was used as a platform for designing the platform.

With all the busy environment, and increasing routine care, it's necessary to have a assistant on your daily WhatsApp to guide you throughout. **Chatbot** applications streamline interactions between people and services, enhancing customer experience.

Assistant Bot helps you schedule your routine activities with reminding you by Google Calendar.

The objective of the thesis is to maximize the convenience to schedule appointments without getting overwhelmed with calls.

**Hassle-free appointment scheduling:** Patients don't always have the time to visit the doctor's clinic personally for making an appointment. A chatbot makes it utterly convenient to manage the requests and confirm them accordingly.

**Immediate Patient Assistance:** Some matters are urgent and need an on the spot expert opinion. A chatbot can be instrumental in bridging the gap between patients seeking answers and expert doctors who can help.

**Saves Time:** Both the patient and the clinic staff save the time they spend on scheduling an appointment. Patients can now book an appointment right from their office desk or from the comfort of their home.



## **PROBLEM STATEMENT**

It is evident from the research carried out in the literature review that modern financial services are constantly seeking to expand their technologies, both to improve customer service and increase delivery of services through the advancements in technology. This is to gain a competitive edge over other bots for financial benefits and to expand its customer base. The chatbot will provide personal and efficient communication between the user and their customer in order to manage their finances and get assistance when needed, such as; answering any queries and booking appointments. The chatbot will allow users to feel confident and comfortable when using this service regardless of the user's computer literacy due to the natural language used in messages. It also provides a very accessible and efficient service as all interactions will take place within the one chat conversation negating the need for the user to navigate.

## **PROPOSED SYSTEM**

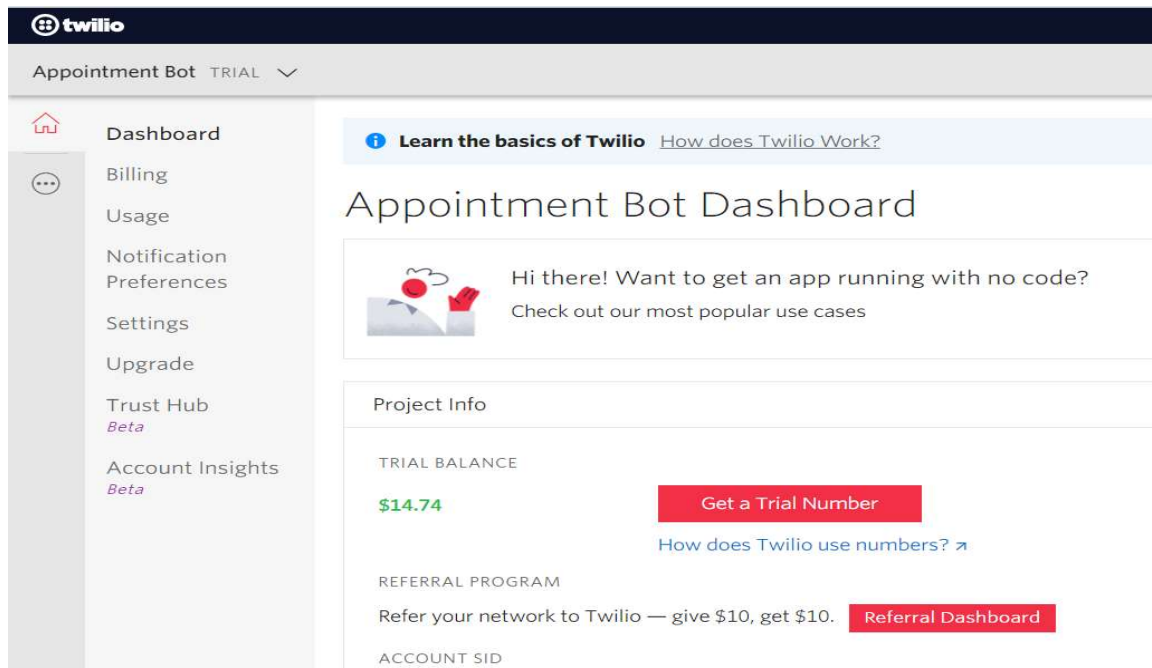
The proposed solution is to create a chatbot to simulate a human conversation to assist users with their appointments needs and to provide a more personal experience. Advancements in artificial Intelligence, machine learning techniques, improved aptitude for decision making, larger availability of domains and corpus, have increased the practicality of integrating a chat bot into applications.

Users will be able to ask appointment scheduling for Hair Salon and Healthcare issues. They will be able to choose their service required for scheduling their appointment for. Certain services will be provided by this Chat Bot to customers via WhatsApp. Customers will join the Appointment Scheduler through a key provided. Customers can engage appointments for their respective service and select date and time for the appointment. Immediate responses will be provided by the chatbot to redeem the need for the user to have to call or visit their outlets and wait in queue in order to get through to an advisor for assistance.

## PLATFORM USED

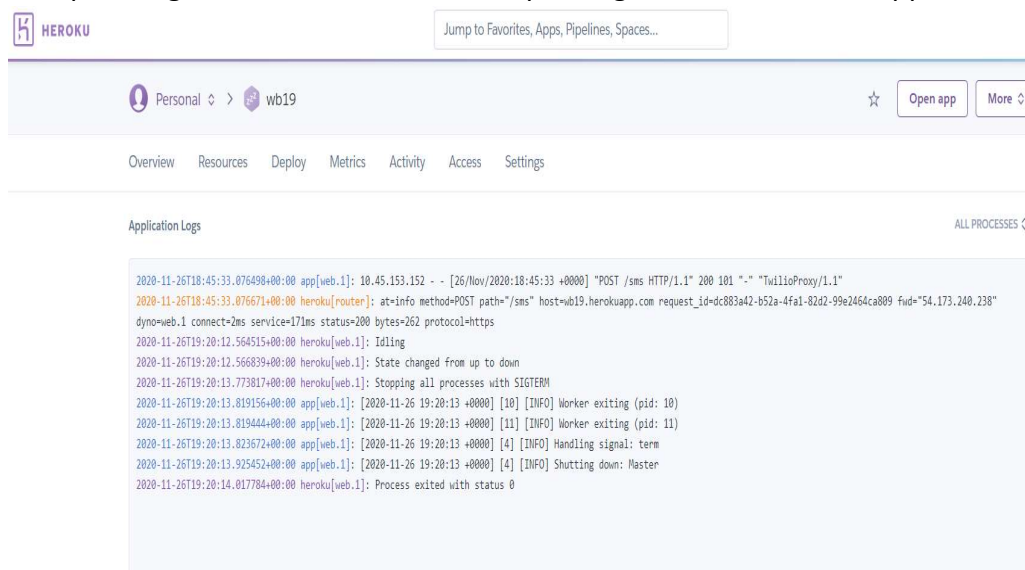
### 1. Twilio Account

We used Twilio for integrating WhatsApp and other communications channels like SMS and MMS with the Programmable Messaging API. Flask is used for developing Python based web apps and Heroku for deploying the chatbot.



### 2. Heroku Account.

We used Heroku for deployment to access anywhere anytime. It's a Cloud platform for uploading our Bot environment and pushing all the data of the Appointment Bot.



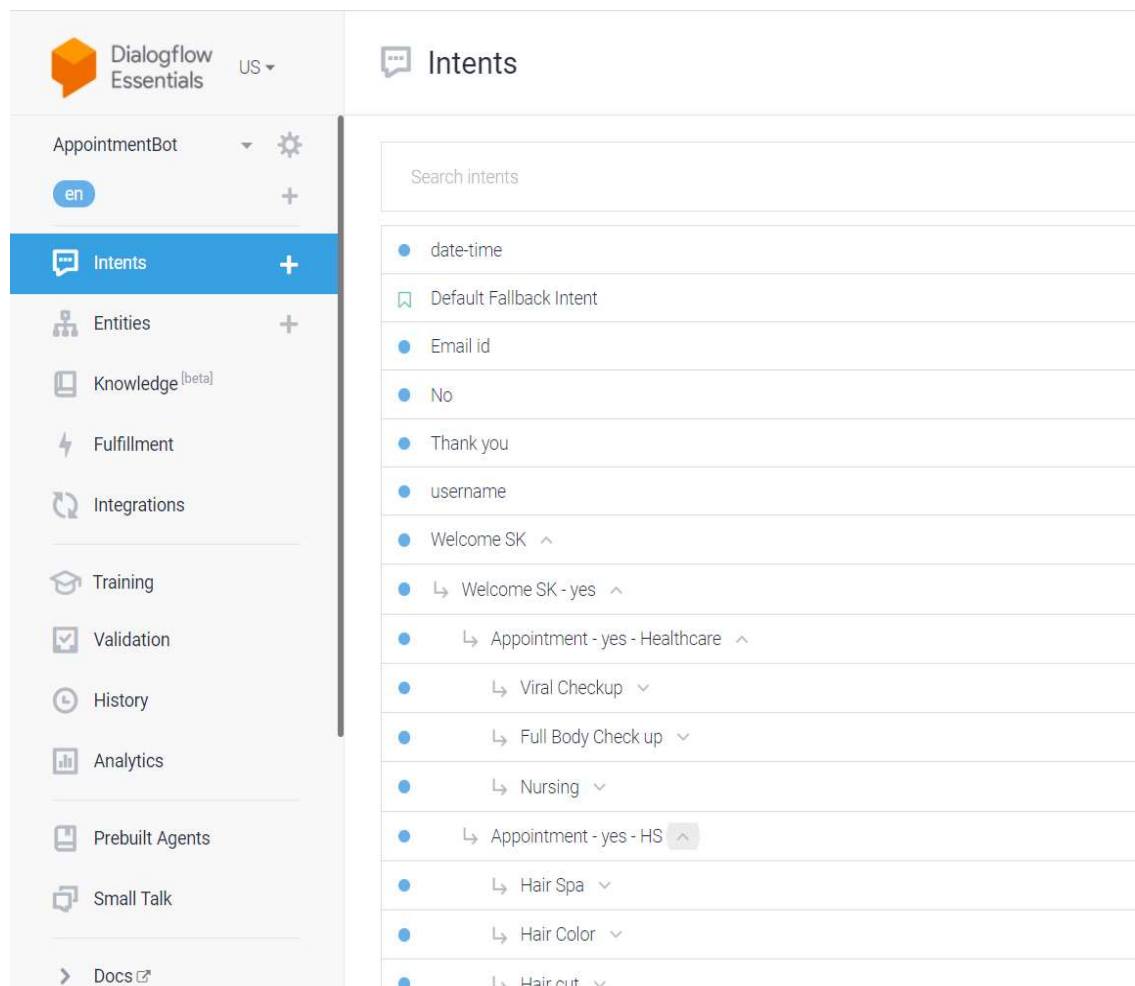
### 3. Dialogflow

Dialogflow is a Google service which operates on a Google Cloud Platform.

The Dialogflow is an intuitive and user-friendly tool that includes **Google's machine learning expertise** and some **Google products** such as Google Cloud Speech-to-Text.

Dialogflow is an NLP (Natural Language Processing) platform, which is used to develop an application related to the conversations and experience for the customers of the company in different languages on numerous platforms.

Dialogflow is mainly used to build actions for most of the Google Assistant devices.



## IMPLEMENTATION DETAILS

- Hosting Screenshots

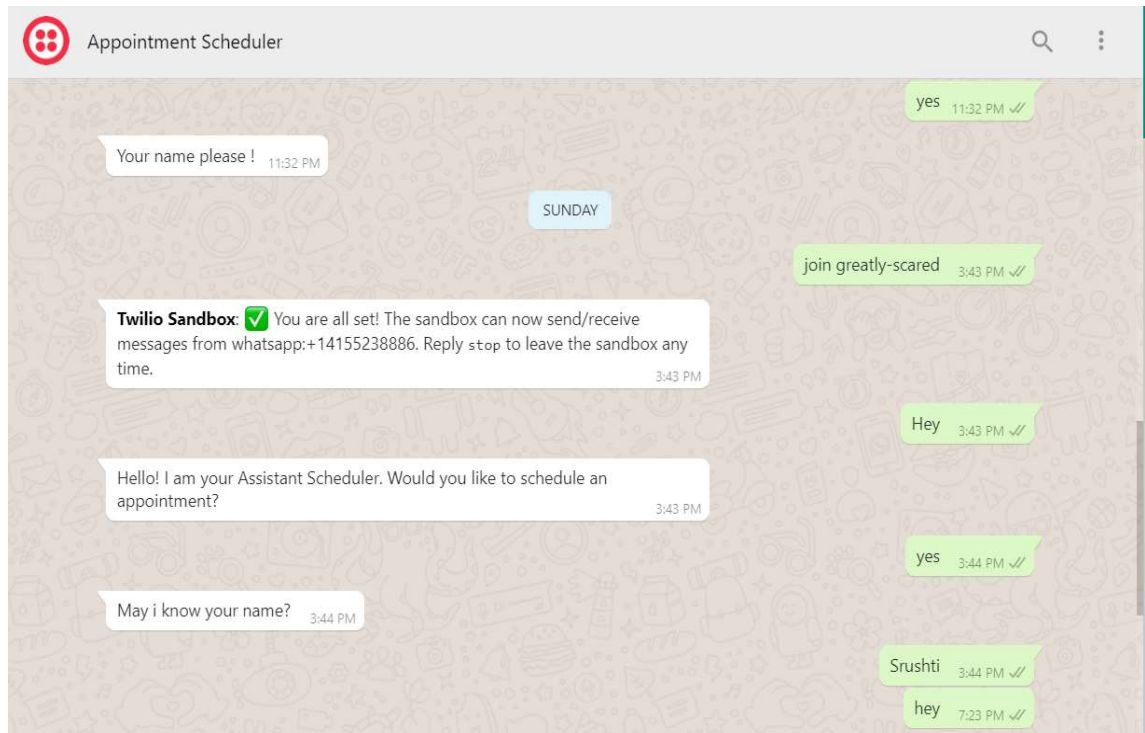
This PC > Desktop > Bot

Name	Date modified	Type	Size
.git	02-11-2020 17:55	File folder	
myvenv	01-11-2020 13:20	File folder	
.gitignore	10-10-2020 13:44	GITIGNORE File	1 KB
app.py	11-10-2020 19:03	Python File	1 KB
appointmentbot-lbm-bb24a27f5416.json	01-11-2020 13:20	JSON File	3 KB
appointmentbot-lbm-bf51b1be9b34.json	11-10-2020 01:07	JSON File	3 KB
Procfile	10-10-2020 13:44	File	1 KB
requirements.txt	11-10-2020 19:12	Text Document	1 KB
runtime.txt	10-10-2020 13:44	Text Document	1 KB
utils.py	11-10-2020 19:06	Python File	1 KB

```
File Edit Selection View Go Run Terminal Help
utils.py app.py x
C: > Users > User101 > Desktop > Bot > app.py
1 from flask import Flask, request
2 from twilio.twiml.messaging_response import MessagingResponse
3
4 from utils import fetch_reply
5
6 app = Flask(__name__)
7
8 @app.route("/")
9 def hello():
10     return "Hello, World!"
11
12 @app.route("/sms", methods=['POST'])
13 def sms_reply():
14     """Respond to incoming calls with a simple text message."""
15     # Fetch the message
16     msg = request.form.get('Body')
17     phone_no = request.form.get('From')
18     reply = fetch_reply(msg, phone_no)
19
20     # Create reply
21     resp = MessagingResponse()
22     resp.message(reply)
23
24     return str(resp)
25
26 if __name__ == "__main__":
27     app.run(debug=True)
28
```

- WhatsApp Key:

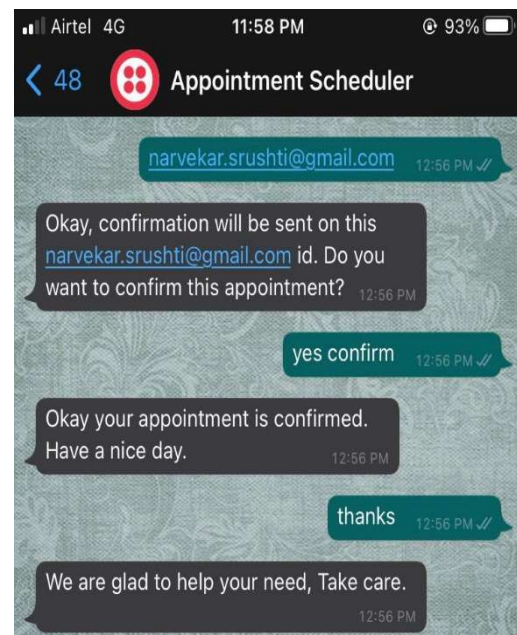
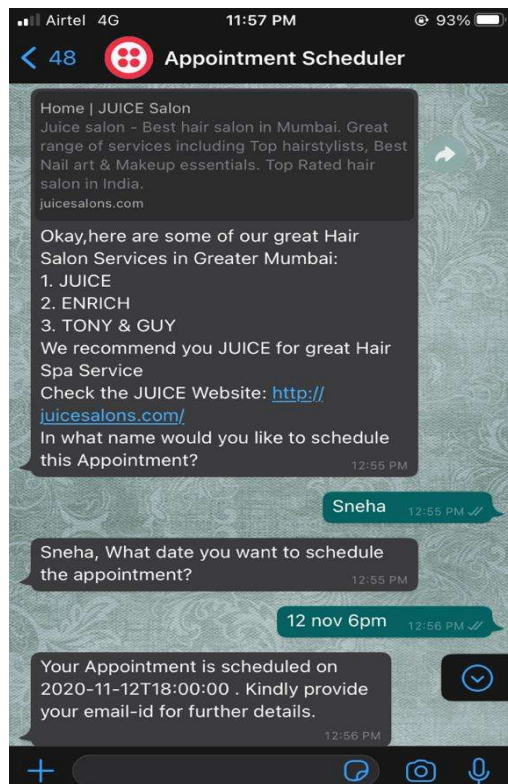
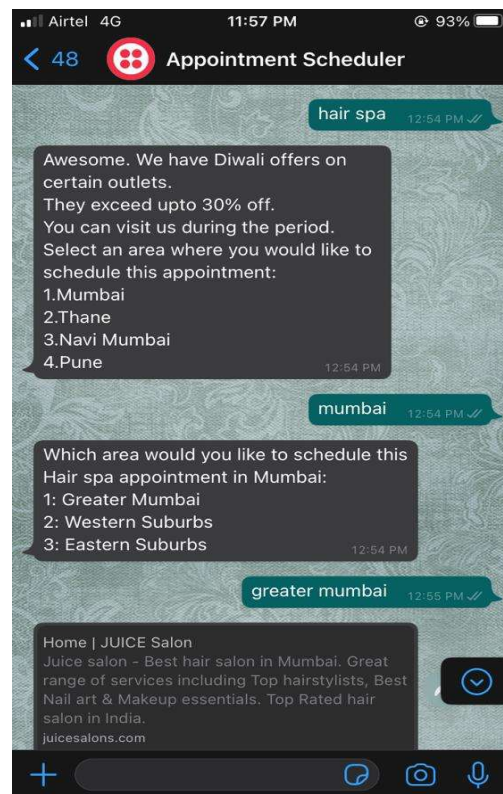
Text +1(415) 523-8886 to use the bot  
**And key: join greatly-scared**





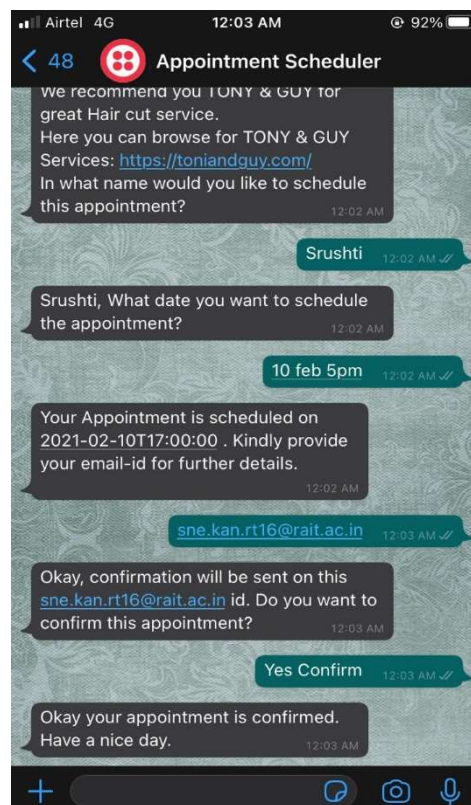
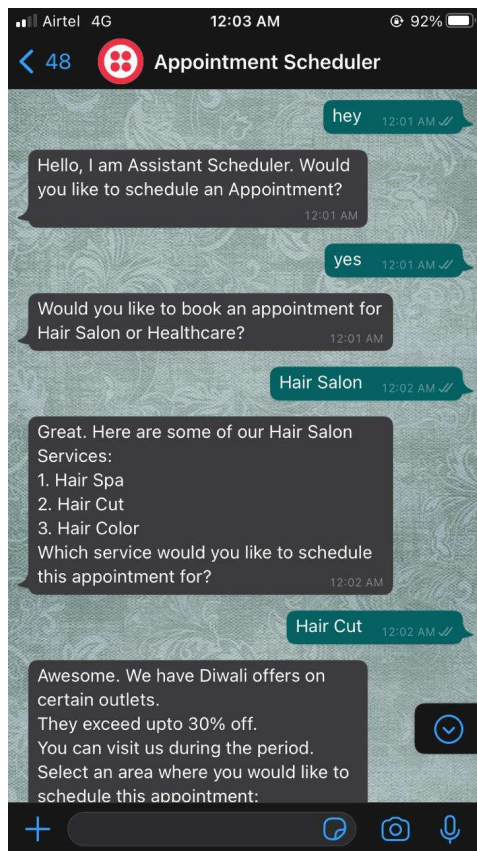
## WhatsApp Appointment Chatbot for Hair Salon:

When you select Hair Spa as your service:



## WhatsApp Appointment Chatbot for Hair Salon:

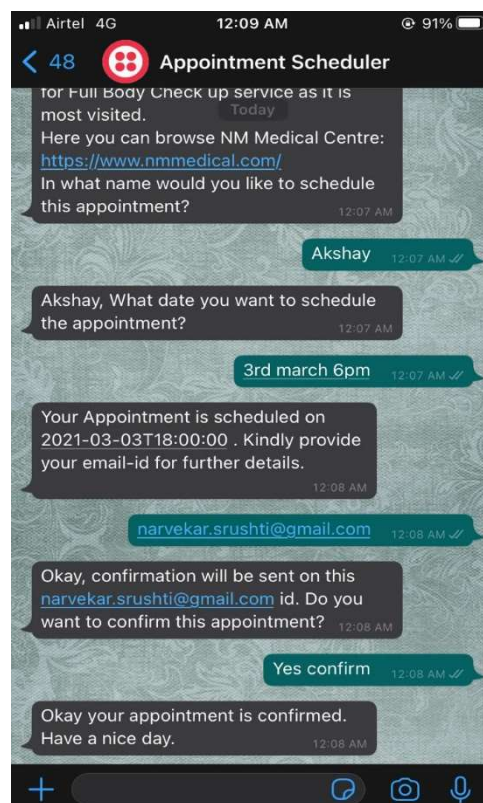
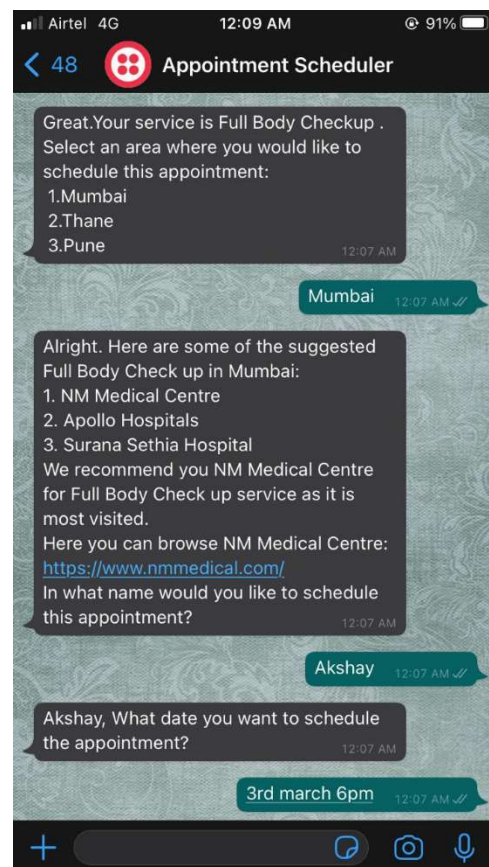
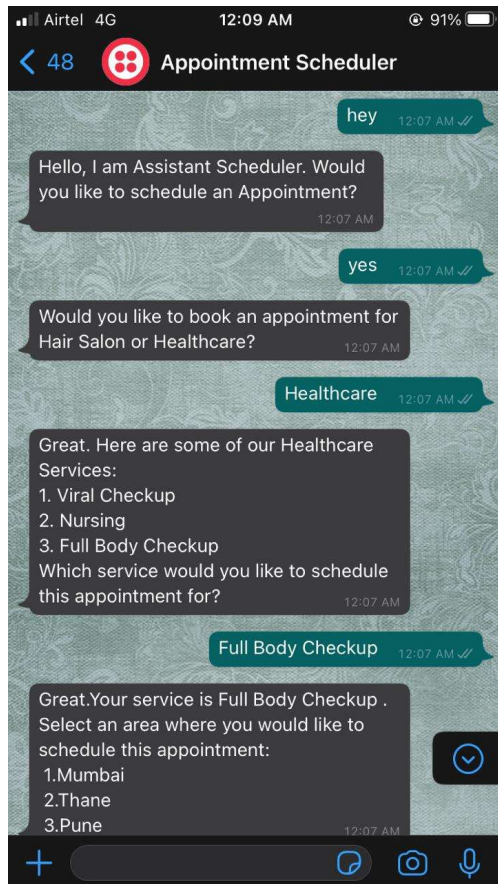
When you select Hair Cut as your service:





## WhatsApp Appointment Chatbot for Healthcare:

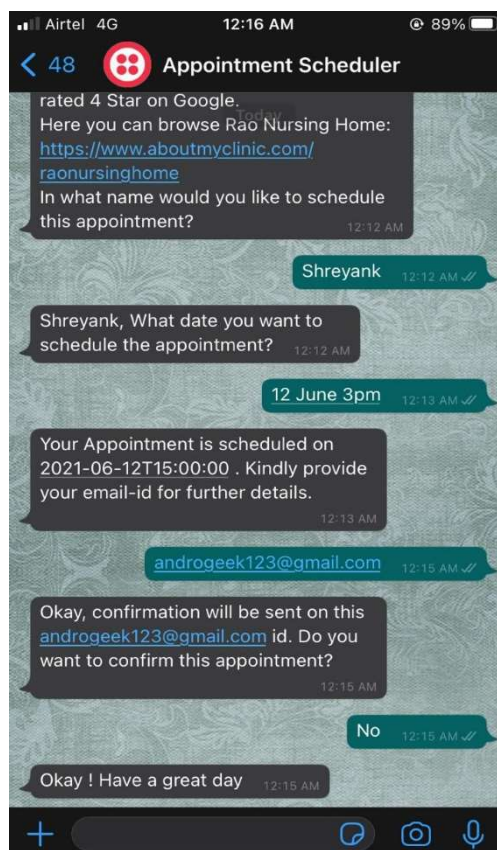
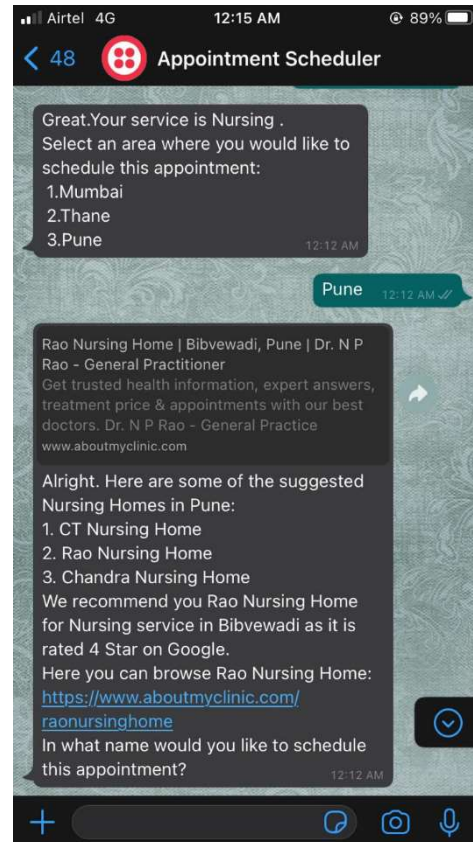
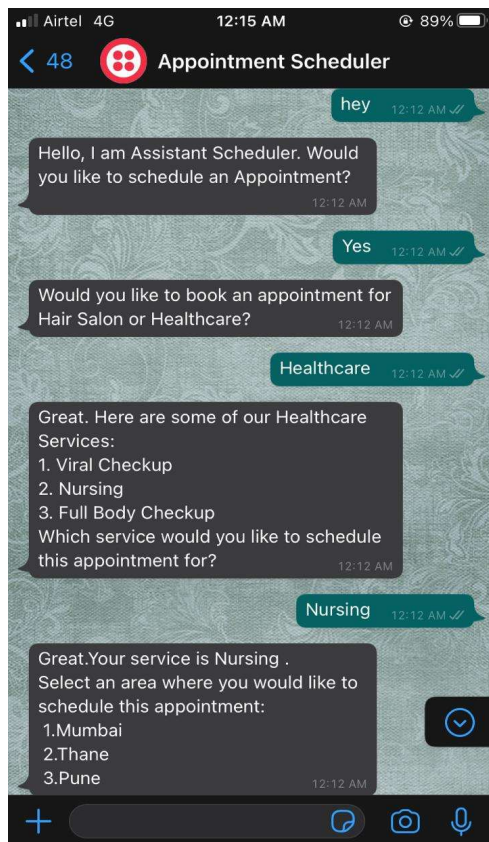
When you select Full Body Check-up as your service:





## WhatsApp Appointment Chatbot for Healthcare:

When you select Nursing as your service:



## CONCLUSION

The study of uses shows that Appointment chatbots have not yet reached maturity yet. They are only in the early stages. However, it seems certain that their use will be generalized in the near future. Chatbots are being increasingly integrated into homes, especially via connected speakers that become a daily companion and begin to address healthcare uses. Tomorrow, parents may turn to a vocal chatbot for advice when their child shows minor clinical signs. Patients will carry out a pre-consultation via a questionnaire on a chatbot at the time they make their appointment. Doctors will interview a chatbot to obtain specific information about a drug or pathology.

There are three main reasons why chatbots could improve and guarantee access to patients' health information:

- The use in the chatbot's answers of vocabulary adapted to the user
- The non-stigmatizing quality of the exchanges for the user (no questions are «too stupid” for a machine, there are no taboo subjects)
- The availability of a voice version, for example for visually impaired or illiterate people  
Chatbots could also help adapt the habitat.

However, all new technologies, including chatbots, could be integrated into uses only on the condition that health ethics are respected. For example, confidentiality is important, as is data security. While many simple or repetitive tasks are and will increasingly be handled by chatbots, robots will never replace humans until technologies are able to understand emotions and unexpressed, implicit information. This is even truer in the health field.