Chatbot:

A chatbot is an artificial intelligence (AI) software that can simulate a conversation (or a chat) with a user in natural language through messaging applications, websites, mobile apps or through the telephone.
Why are chatbots important? A chatbot is often described as one of the most advanced and promising expressions of interaction between humans and machines. However, from a technological point of view, a chatbot only represents the natural evolution of a Question Answering system leveraging Natural Language Processing (NLP). Formulating responses to questions in natural language is one of the most typical Examples of Natural Language Processing applied in various enterprises' end-use applications.

Problem Statement:

Send the information to the user about the information of the courses . Also email him the details of the course, and intimate the support team about the new enquiry with the phone no

Case :

1. User says hi or similar phrase
2. Bot welcomes user and asks him to choose any of the option provided in the message
3. User enter the course
4. Bot prompts for user name, email id, and phone number
5. Bot send an email to the user with the course info
6. Bot also send an email to support with the user name and mobile id for further followup
7. Bot asks user for any other query?
8. User replies with either Yes or no
9. If yes, it goes back to the step 2
10. Else it ends the conversation

1. Sign in to Dialogue flow
2. Go to console
3. Create a new agent as "iNeuron"

4. Provided with Default Welcome and Default Fallback intent

5. Created entity as follows to match the course name:

6. To serve our problem statement, created the following intents
   a. Course selection

Created actions and parameters, asking the user to enter the following required fields along with the prompts. The user input is checked against the system entities provided by dialogueflow.

Created Response text:

Fullfillment is enabled, where there will be a webhook call to python program and the mails will be sent as per the requirement.

b. If the user replies that he wants to ask some more questions, then this intent will be called.

Where bot may respond as:

c. This intent is to end the conversation

- end_conversation [SAVE] ⋮

Contexts ❓ ⌄

Events ❓ ⌄

Training phrases ❓   Search training phra 🔍 ⌃

> Add user expression

> end

> thankyou

> no

This is set as "end conversation "after the response by the bot.

Responses ❓ ⌃

DEFAULT   GOOGLE ASSISTANT   ✛

Text Response   🗑

| 1 | Thank you for your interest. We will get back to you soon |
| 2 | Enter a text response variant |

ADD RESPONSES

🔵 Set this intent as end of conversation ❓

7. Go to Fulfillment tab and enable webhook.

8. Also enabled "SmallTalk" to handle user's questions like "How are you" etc

9. Upgraded knowledge base for FAQ type of questions, by uploading FAQ file which consists of only two columns with no headers as per the prerequisites

Understanding python components:

1. Initiated route /webhook from bot
2. app.py/webhook () method is called
3. get the request from bot
4. go to processRequest
   a. extract entities
   b. using reponse id , log the details into the file what user says
   c. read course name and extract related template for the mail message
   d. send mail to student & send mail to support
      i. Sendmail.py : extract configuration details using config.ini
      ii. Prepare messages and send the mails
   e. Prepare the 'bot says' message and log it into the file
   f. Prepare fulfillment text as the result
   g. Return to the webhook()
5. Using the result returned makeResponse in json format
6. Return the response to the bot

Heroku deployment:

1. Created Git Repository as "**GoogleDialogueFlow_iNeuronCourseBot**"
2. Created Procfile to run app.py
3. Created requirements.txt with important modules or packages listed to run the app
4. Sign up to heroku and create new app

Create New App

App name

ineuron-course-info

ineuron-course-info is available

Choose a region

United States

Add to pipeline...

Create app

5. In "Deploy" tab Select 'GitHub' as deployment method
6. Connect to your repository created in step 1

App connected to GitHub

Code diffs, manual and auto deploys are available for this app.

Connected to sandmadh/GoogleDialogueFlow_iNeuronCourseBot by sandmadh   Disconnect...

Releases in the activity feed link to GitHub to view commit diffs

7. Go to Manual Deploy and click 'Deploy Branch"

Manual deploy

Deploy the current state of a branch to this app.

Deploy a GitHub branch

This will deploy the current state of the branch you specify below. Learn more.

Choose a branch to deploy

master   Deploy Branch

Your app was successfully deployed.

View

8. Get the heroku url and fill in the fulfillment section as follows:

9. Lets test the bot now:

10. heroku logs:

2020-04-22T11:50:25.931740+00:00 app[web.1]: 10.5.212.115 - - [22/Apr/2020 11:50:25] "POST /webhook HTTP/1.1" 200 -

10. The mails received are:
    a. Mail to the support:

    b. Mail to the user:

Intergration with Telegram:

11. Got to telegram and search for botfather,
12. Create a new bot using /newbot, give botname and username
13. Copy the generated access token
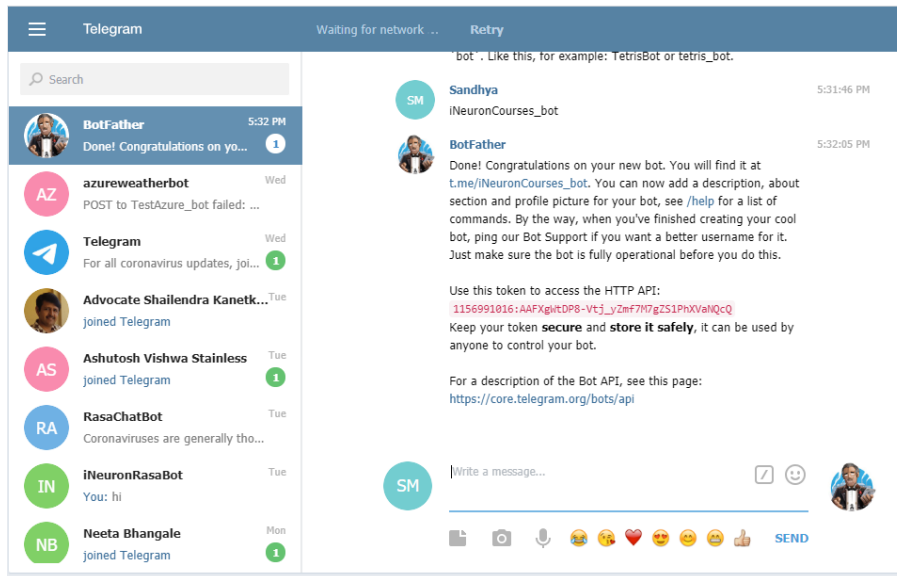
14. Go to dialogueflow ➔ click on intergration ➔ click on telegram enable and input the access token and click start
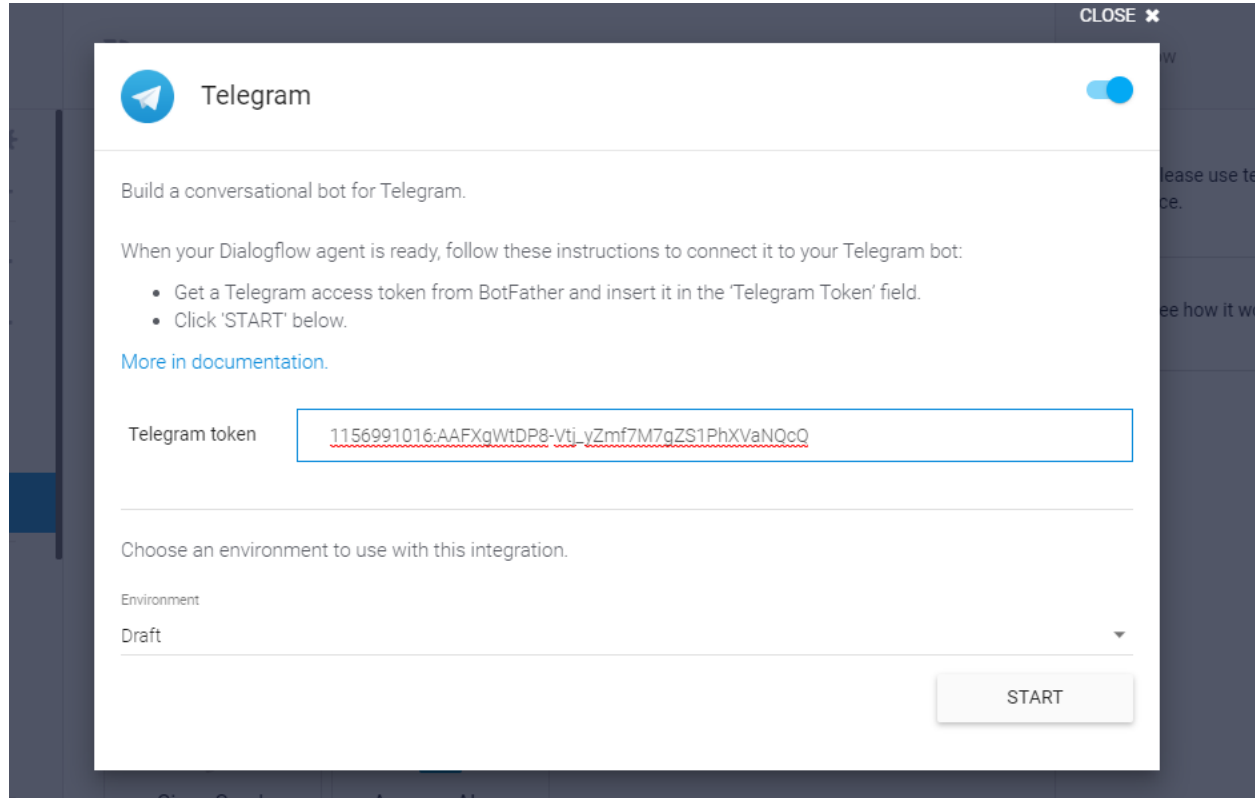
The communication with the bot has started:

| | IN | **iNeuronCourses** | 5:45:15 PM |
| | | Please enter your email id | |

| | SM | **Sandhya** | 5:45:41 PM |
| | | sandhya_mulay@yahoo.com | |

| | IN | **iNeuronCourses** | 5:45:57 PM |
| | | Please enter your contact no | |

| | SM | **Sandhya** | 5:46:07 PM |
| | | 9833722988 | |

Unread messages

| | IN | **iNeuronCourses** | 5:46:38 PM |
| | | We have sent the course syllabus and other relevant details to you via email. An email has been sent to the Support Team with your contact information, you'll be contacted soon. Do you have further queries? | |

SM   Write a message...   😂 😘 ❤️ 😍 😊 😁 👍   SEND   IN

The mails have been received as follows one to the user and one to the support

| ☐ | ● sandhya.mulay20... | 🔍 ⭐ | **iNeuron Course Details** | MachineLearningMasters.pdf Hi, Greetings fro... |
| ☐ | ● sandhya.mulay20@gm... | ⭐ | **LEAD GENERATED** | Hi, The details of the student showing interest in our... |