Telegram-Bot

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Important Links:

Github: https://github.com/harsh-thummar-146/Telegram_bot_project

Google colab: https://github.com/harsh-thummar-146/Telegram_bot_project/blob/main/Telegram_chatbot.ipynb

Telegram-chatbot: https://t.me/Harsh_tele_chatbot

Goal:

Creating a Telegram-Bot which takes the instructions from User via Telegram ChatBot and read the instructions. After that it sends the command to the Cloud Platform Adafruit, to perform certain tasks (like. Lights ON/OFF, Fan ON/OFF) and Gives reply with different methods to user in telegram chat for eg. Communicate with used in terms of text and sends photograph that The execution of the Instructions is Done and Output is Generated in AdaFruit IO platform. This project is further Extended with NodeMCU and Arduino Uno for Physical Execution.

This whole programming is done in python in Google colaboratory with the necessary libraries.

After successfully executed in Google Colaboratory to Execute it forever The Deployment of the Telegram is Required, For that I have uses an 'Heroku' platform and GitHub.

Tools:

-BotFather in telegram

-telegram bot

-Google Colaboratory

-Heroku for deployment

-Adafruit IO cloud platform

-GitHub

Read me:

-To follow the instructions you must go to above GITHUB link and follow the steps as shown below

Instructions:

1) Write this code in google colaboratory and check wheather the output is generated or not
2) This code is in my google collab link above (Telegram_chatbot.ipynb)
3) Then upload a (app-tweet.py) file with this code in GITHUB project mentioned
4) Create read me file for the description of the Telegrambot project
5) Create a requirement file where install certain library to run the python code Which includes,
   -adafruit –io
   -RestClient
   -python-telegram-bot==13.0
   -Updater
   -MessageHandler
   -Filters

6) Execute the python code in Google Colaboratory and see the Output
7) Lastly to execute this on heroku Create 'Procfile' to act as a worker for heroku and connect with heroku platform project and start Deployment process
8) Make sure that Dyno is activated
9) Deploy this code and get the output in AdaFruit Cloud Platform.

The code :

```
### import certain libraries or install it with pip install {libary}


from Adafruit_IO import Client

from telegram.ext import Updater,MessageHandler,Filters


### Defining the function for Light On Instruction and Give user proof that
###instruction is Executed.


def demo1(bot,update):

  chat_id = bot.message.chat_id

  path='https://previews.123rf.com/images/murika/murika1511/murika151100069/48123160-bright-glowing-incandescent-light-bulb-on-a-white-background.jpg'

  bot.message.reply_text('Light Turned ON')

  update.bot.sendPhoto(chat_id=chat_id,photo=path)
```

```
### Defining the function for Light OFF Instruction and Give user proof that
###instruction is Executed.


def demo2(bot,update):
  chat_id = bot.message.chat_id
  path= 'https://previews.123rf.com/images/ericmilos/ericmilos0912/ericmilos091200136/6109526-3d-render-of-light-bulb-on-white.jpg'
  bot.message.reply_text('Light Turned OFF')
  update.bot.sendPhoto(chat_id=chat_id,photo=path)


### Defining the function for Fan On Instruction and Give user proof that
###instruction is Executed.


def demo3(bot,update):
  chat_id = bot.message.chat_id
  path= 'https://thumbs.dreamstime.com/b/spinning-gray-ceiling-fan-picture-summer-134473260.jpg'
  bot.message.reply_text('Fan Turned ON')
  update.bot.sendPhoto(chat_id=chat_id,photo=path)


### Defining the function for Fan OFF Instruction and Give user proof that
###instruction is Executed.


def demo4(bot,update):
  chat_id = bot.message.chat_id
  path= 'https://images-na.ssl-images-amazon.com/images/I/412QHDSQB1L._SL1000_.jpg'
  bot.message.reply_text('Fan Turned OFF')
  update.bot.sendPhoto(chat_id=chat_id,photo=path)


### Defining Main Function for Execution
```

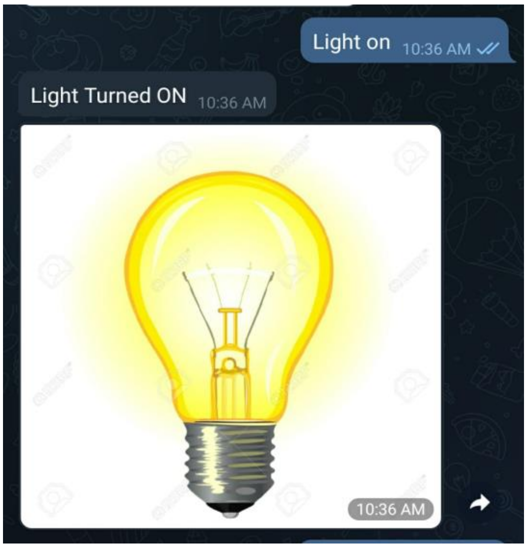
```
def func1(bot,update):
  a=bot.message.text.lower()
  a = a.split()
  if 'on'in a:
    if 'light' in a:
       demo1(bot,update)
       aio.send('light', 1)
    elif 'fan' in a:
       demo3(bot,update)
       aio.send('fan', 1)
  elif 'off'in a:
     if 'light' in a:
       demo2(bot,update)
       aio.send('light', 0)
     elif 'fan' in a:
       demo4(bot,update)
       aio.send('fan', 0)
  else:
    bot.message.reply_text('invalid text')

### conncting Adafruit with Google Colaboratory

aio = Client('harsh_thummar', 'aio_HaPT113aHuzqObqhGD854B11CO8y')

### Creating Telegram Bot in Bot father and generate API

BOT_TOKEN = '1946645481:AAHtWnIjIbO6w7gz8SryKB3ya8KePDBqJT0'
u = Updater(BOT_TOKEN,use_context=True)
dp = u.dispatcher
dp.add_handler(MessageHandler(Filters.text,func1))
u.start_polling()
u.idle()
```

Output on google collab:

Follow This Code:

https://github.com/harsh-thummar-146/Telegram_bot_project/blob/main/Telegram_chatbot.ipynb

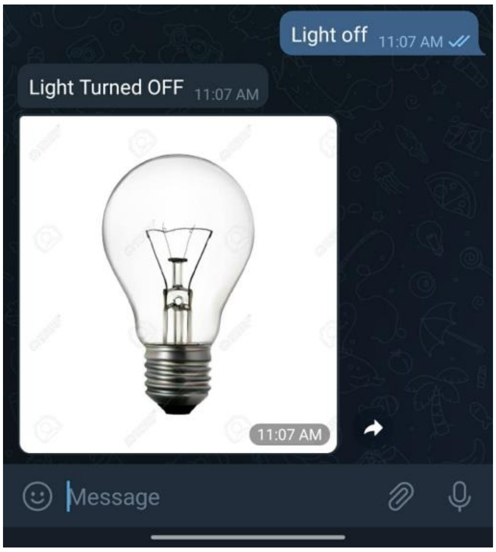
Output On Telegram-chatbot:



Light on 10:36 AM

Light Turned ON 10:36 AM

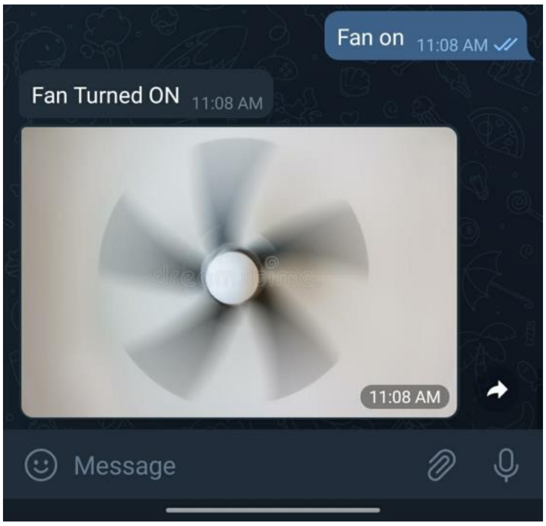
10:36 AM



Light off 11:07 AM

Light Turned OFF 11:07 AM

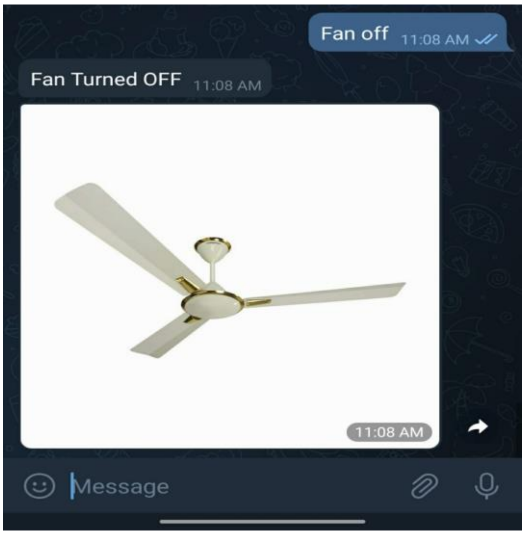
11:07 AM



Fan on 11:08 AM

Fan Turned ON 11:08 AM

11:08 AM

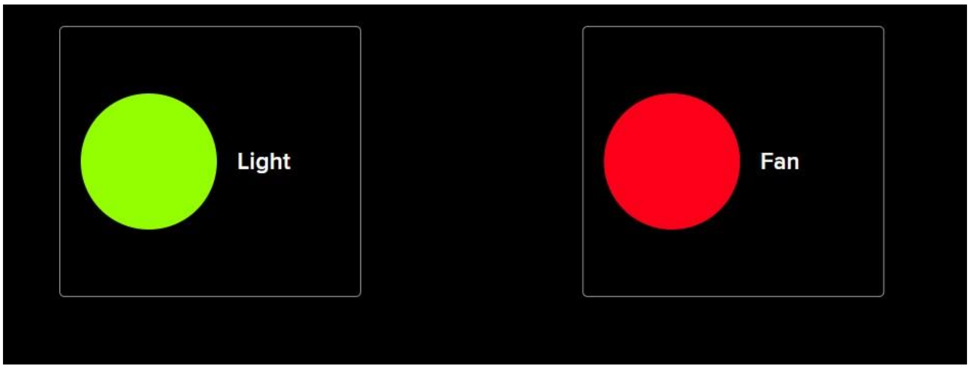


Fan off 11:08 AM

Fan Turned OFF 11:08 AM

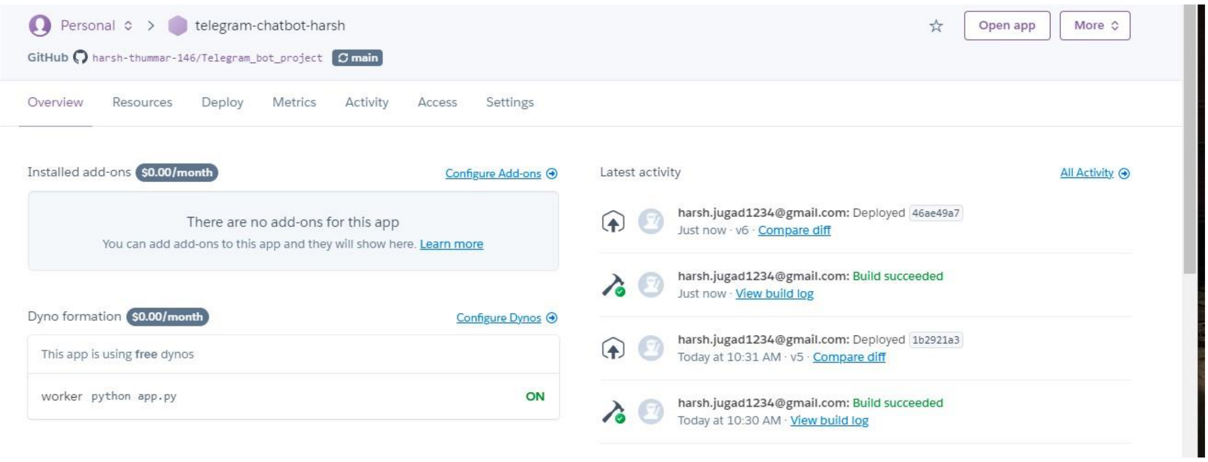
11:08 AM

Output on Adafruit IO cloud platform:



Output on Heroku after successfully Deployed on server :

After successfully Deployment of telegram-chatbot project



GitHub harsh-thummar-146/Telegram_bot_project main

Installed add-ons $0.00/month

There are no add-ons for this app

You can add add-ons to this app and they will show here. Learn more

Dyno formation $0.00/month

This app is using **free** dynos

worker python app.py ON

Latest activity

harsh.jugad1234@gmail.com: Deployed 46ae49a7
Just now · v6 · Compare diff

harsh.jugad1234@gmail.com: Build succeeded
Just now · View build log

harsh.jugad1234@gmail.com: Deployed 1b2921a3
Today at 10:31 AM · v5 · Compare diff

harsh.jugad1234@gmail.com: Build succeeded
Today at 10:30 AM · View build log

It can be shown that Built of the Deployment of Telegram-chatbot is Successful and is on Server.