HOME AUTOMATION USING GOOGLE ASSISTANT

In this project we are going to control our devices with voice commands using Google assistant.

1. **Installing required libraries**

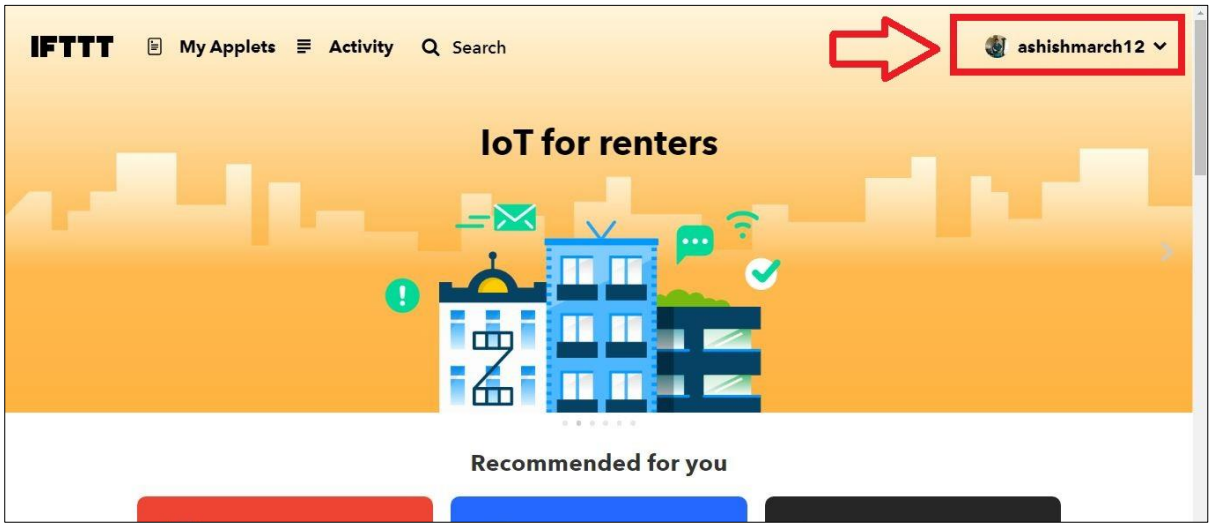
   Install these libraries by typing the commands in terminal

   pip install requests

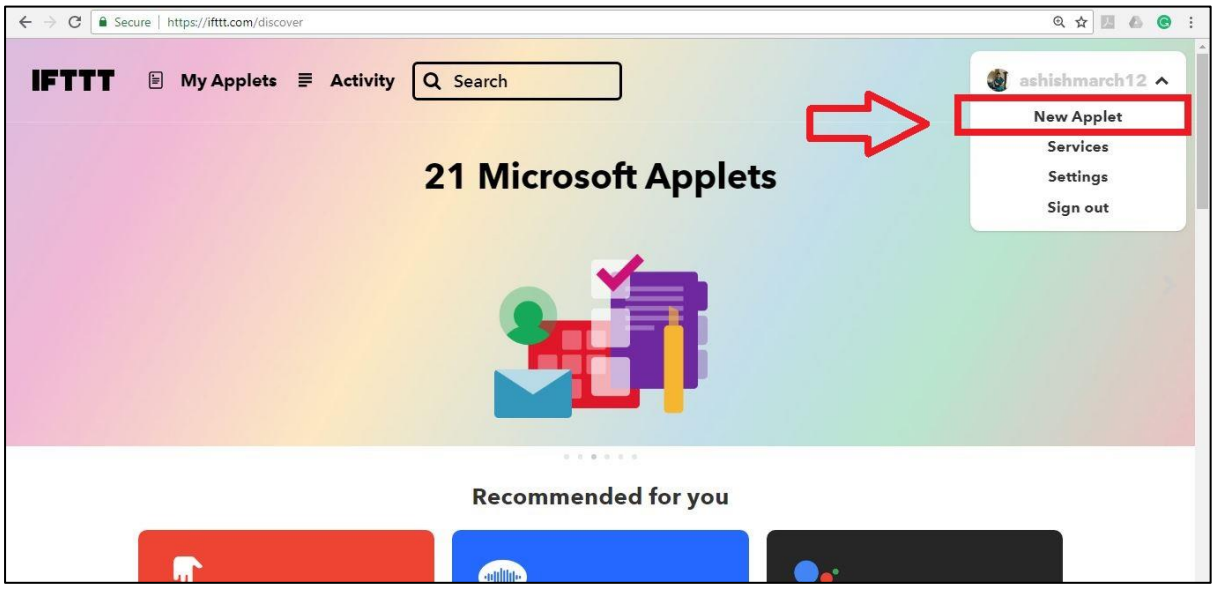
   sudo apt-get install build-essential python-dev

2. **Setting up Google Assistant and linking it to ThingSpeak Channel**

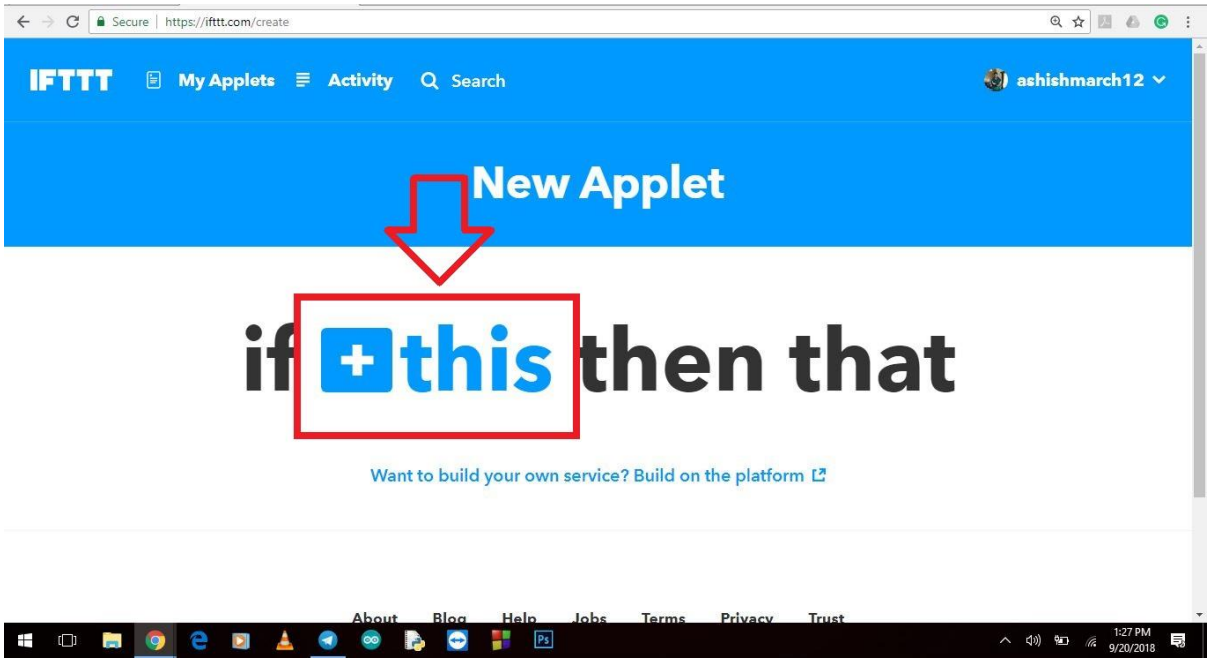
   Step 1: Create account on IFTTT website and click on your ID.



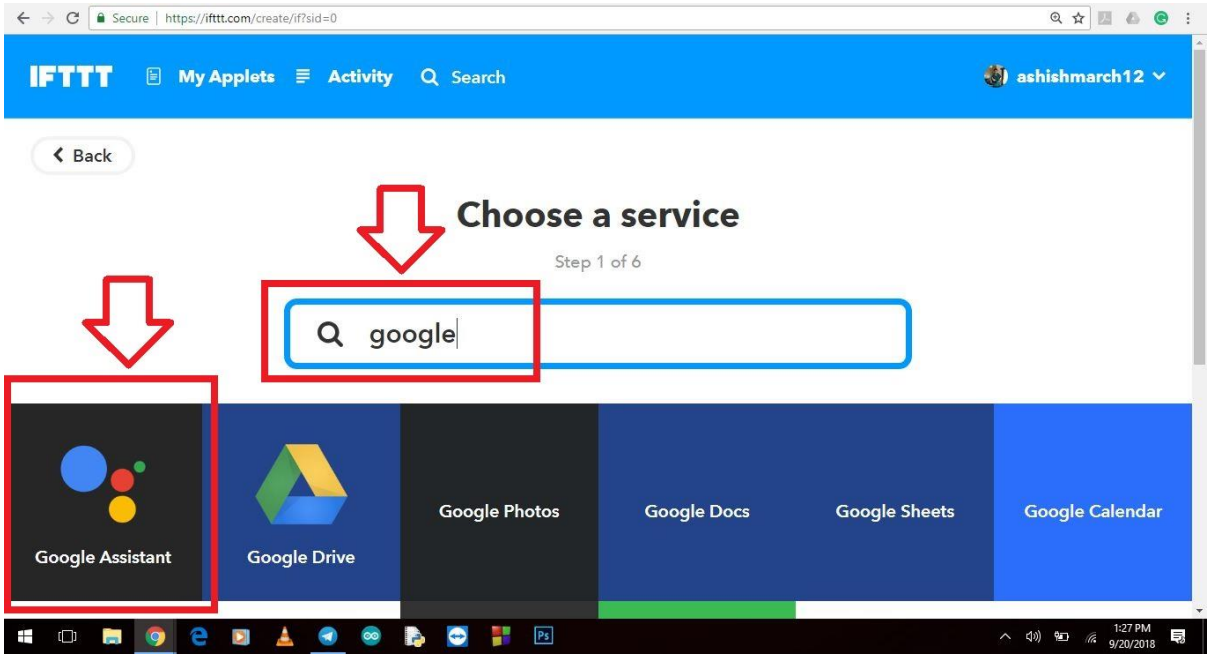
   Step 2: Now click on “New Applet”



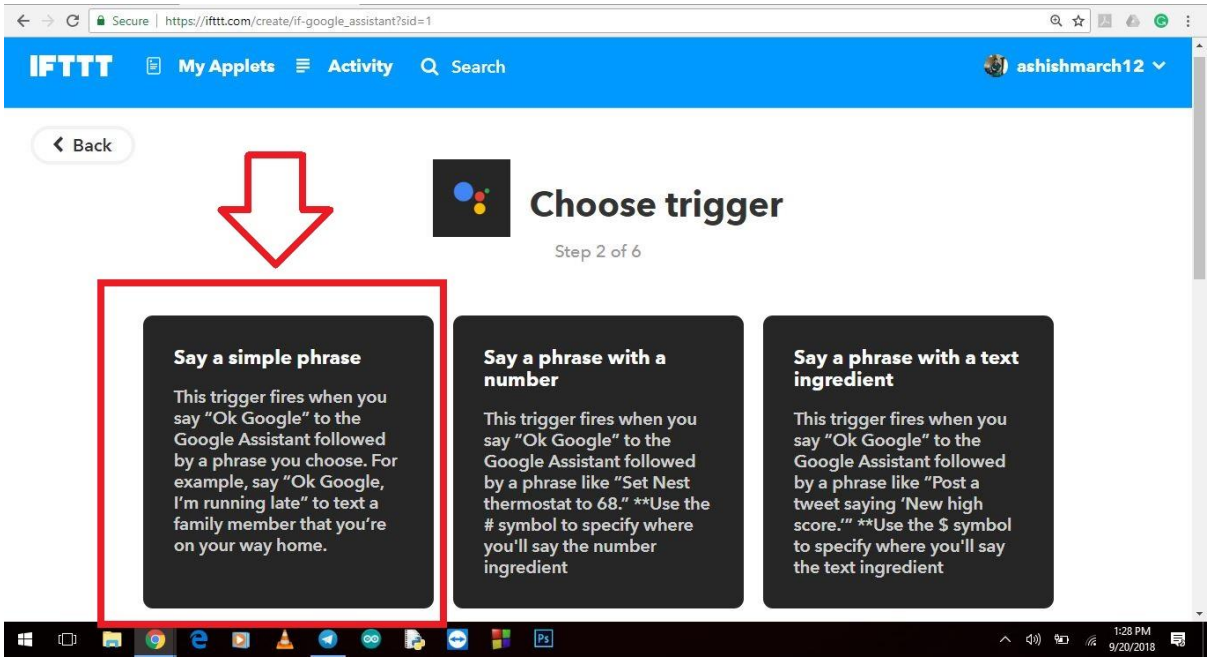
Step 3: Click on “+this”.



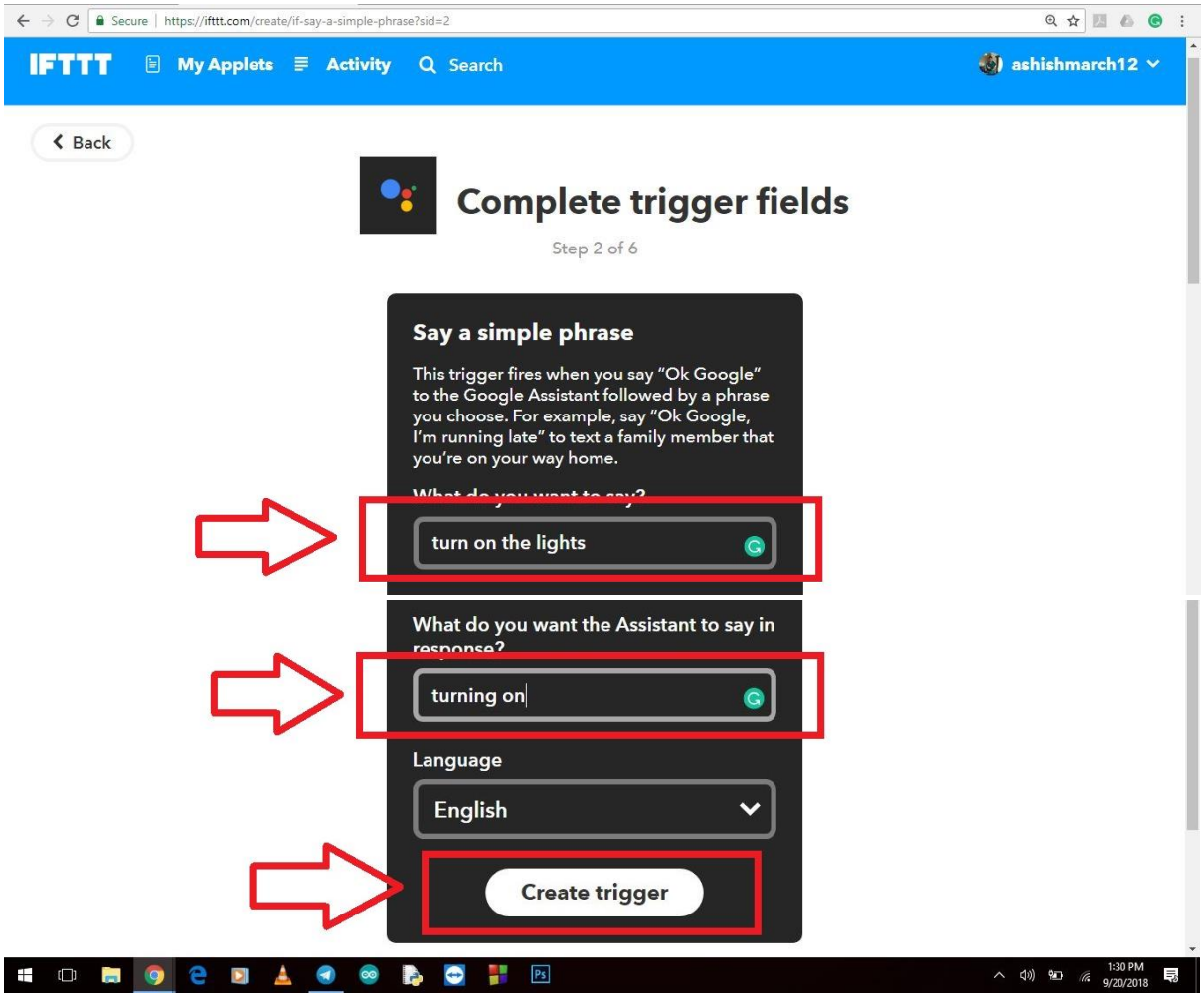
Step 4: Choose Google Assistant from the list.



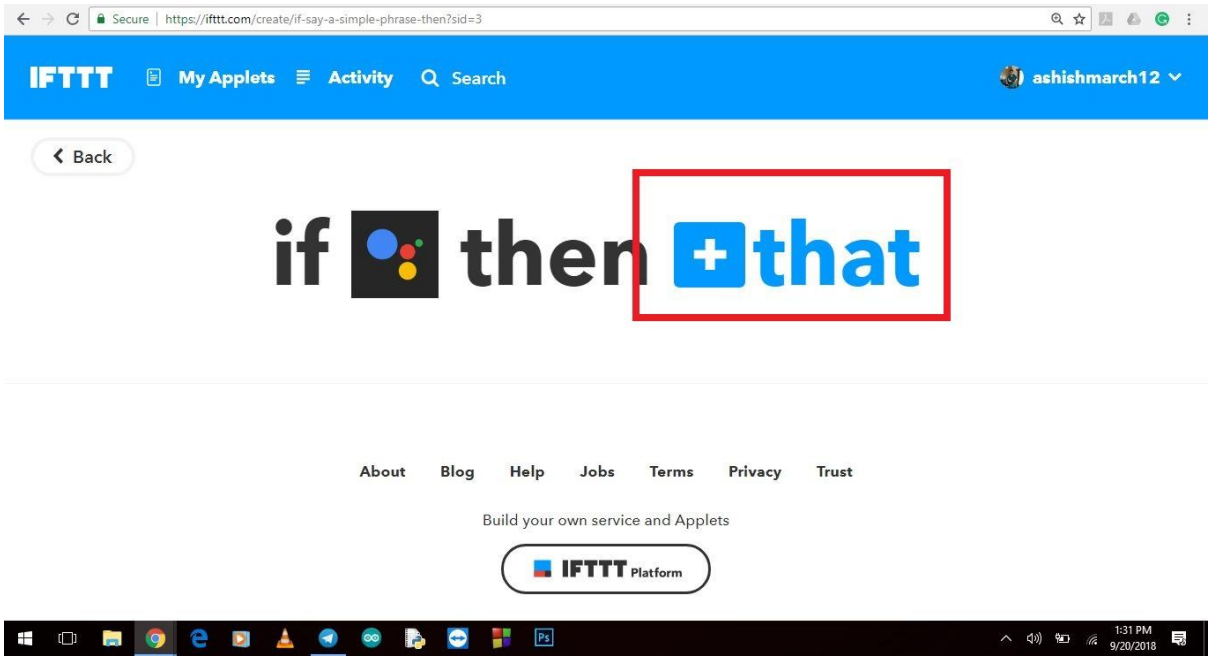
Step 5: Click on “Say a simple phrase” applet.



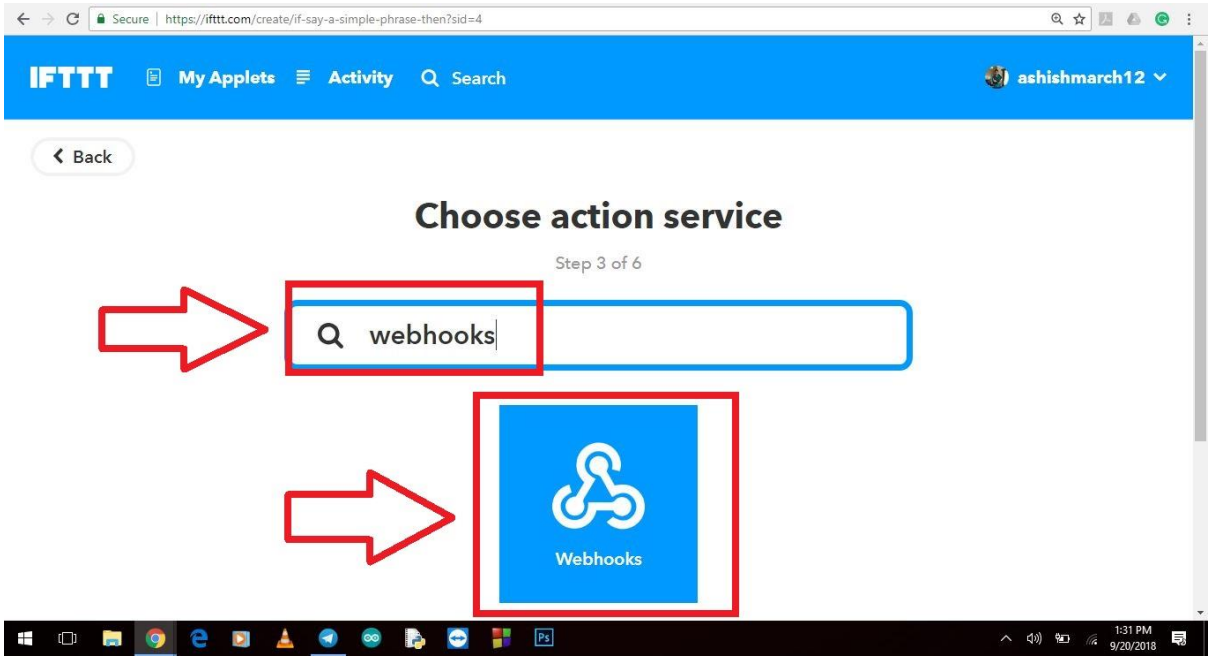
Step 6: Fill the following fields and click “Create trigger”.



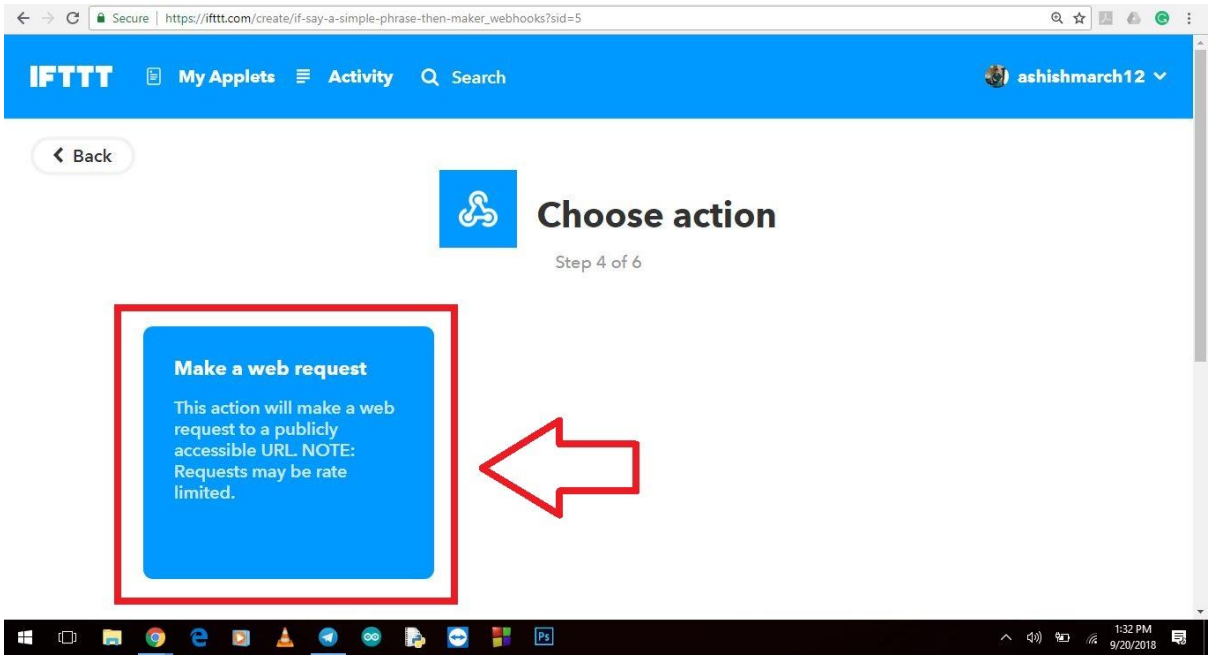
Step 7: Click on “+that”.



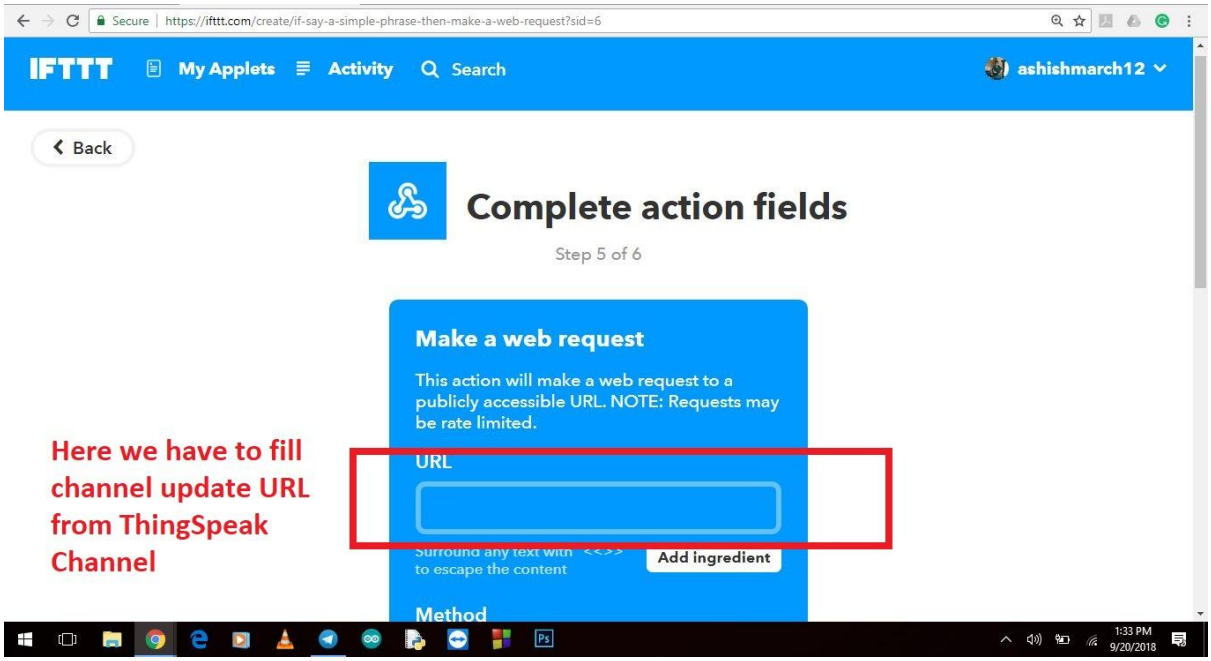
Step 8: Search for webhooks and select it.



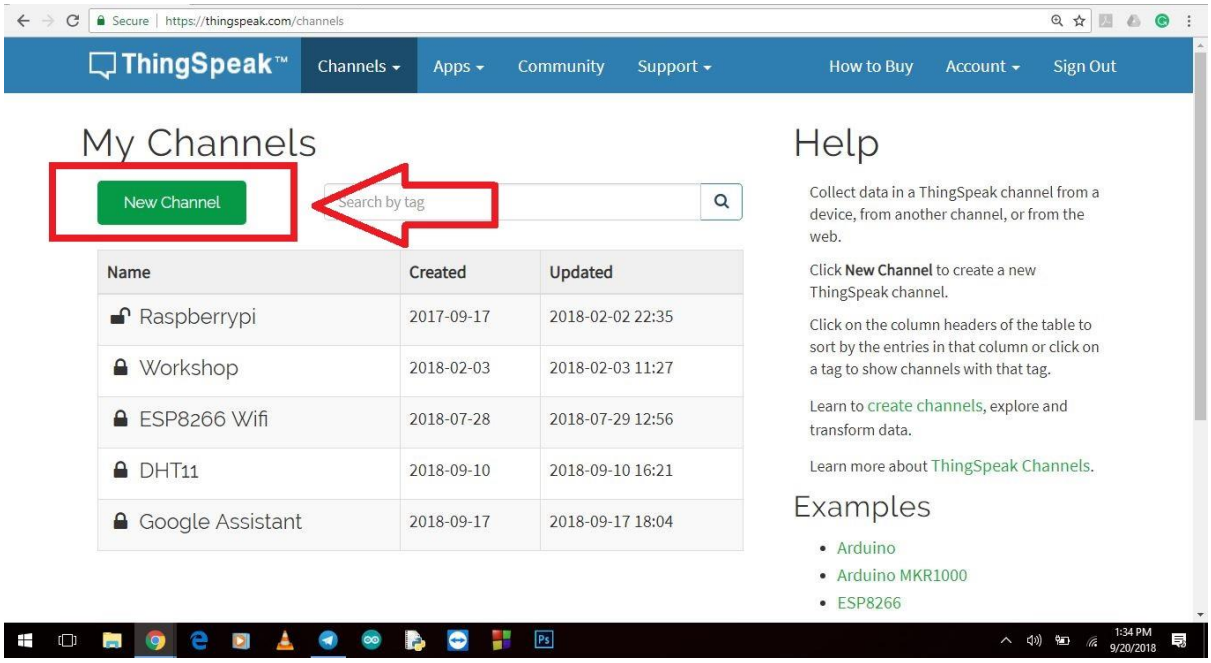
Step 8: Choose action “Make a web request”.



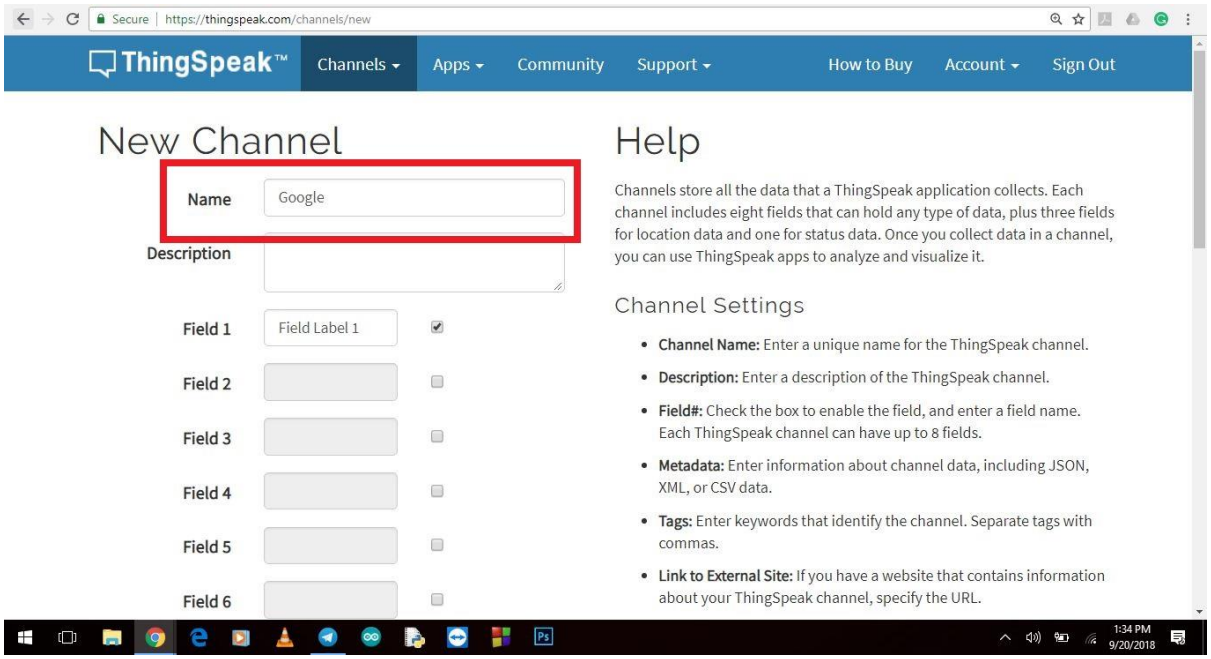
Step 9: Here we have to fill the ThingSpeak Channel.



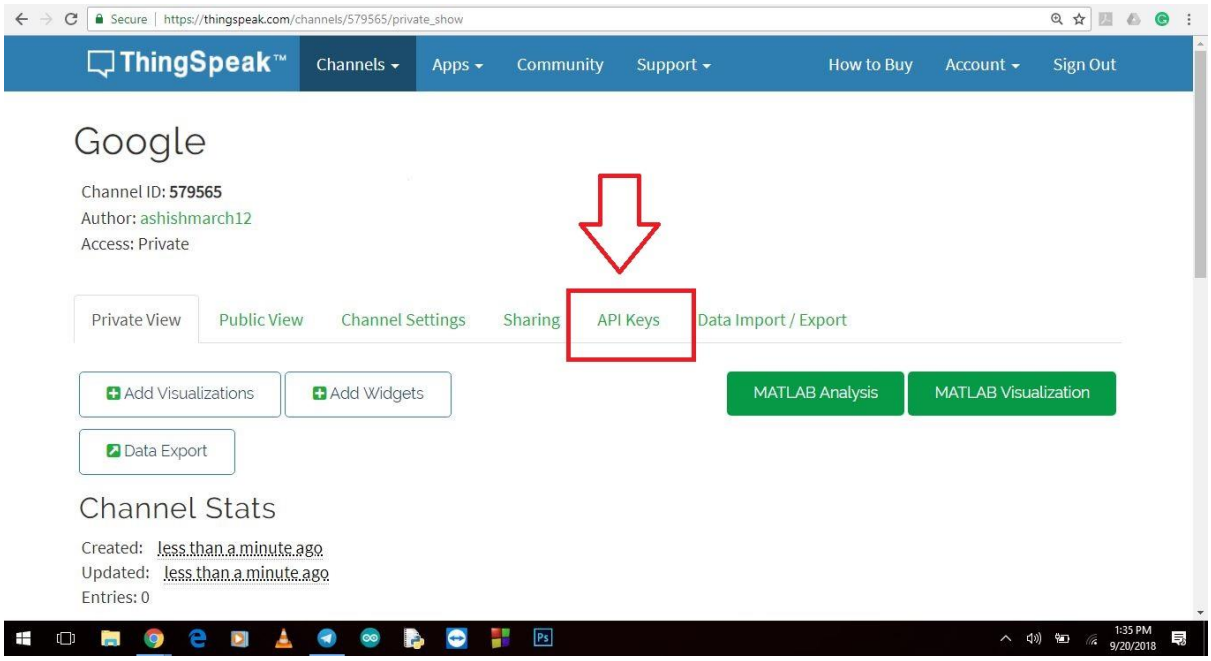
Step 10: Goto Thingspeak.com, sign in to your account and create a new channel.



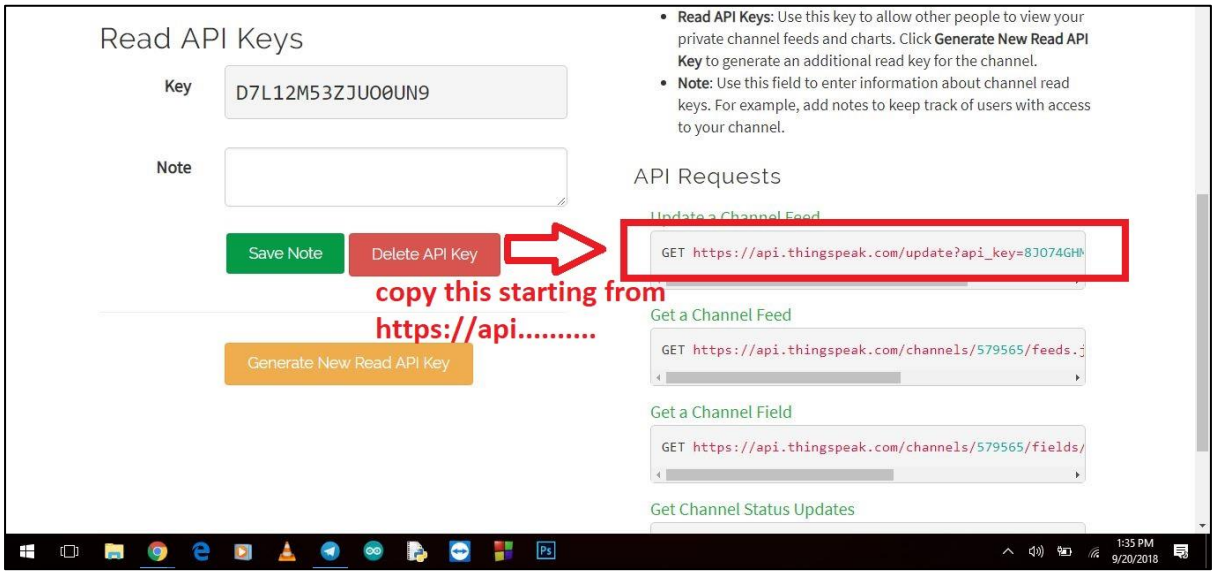
Step 11: Give this channel a name.



Step 12: Click on “API” keys.

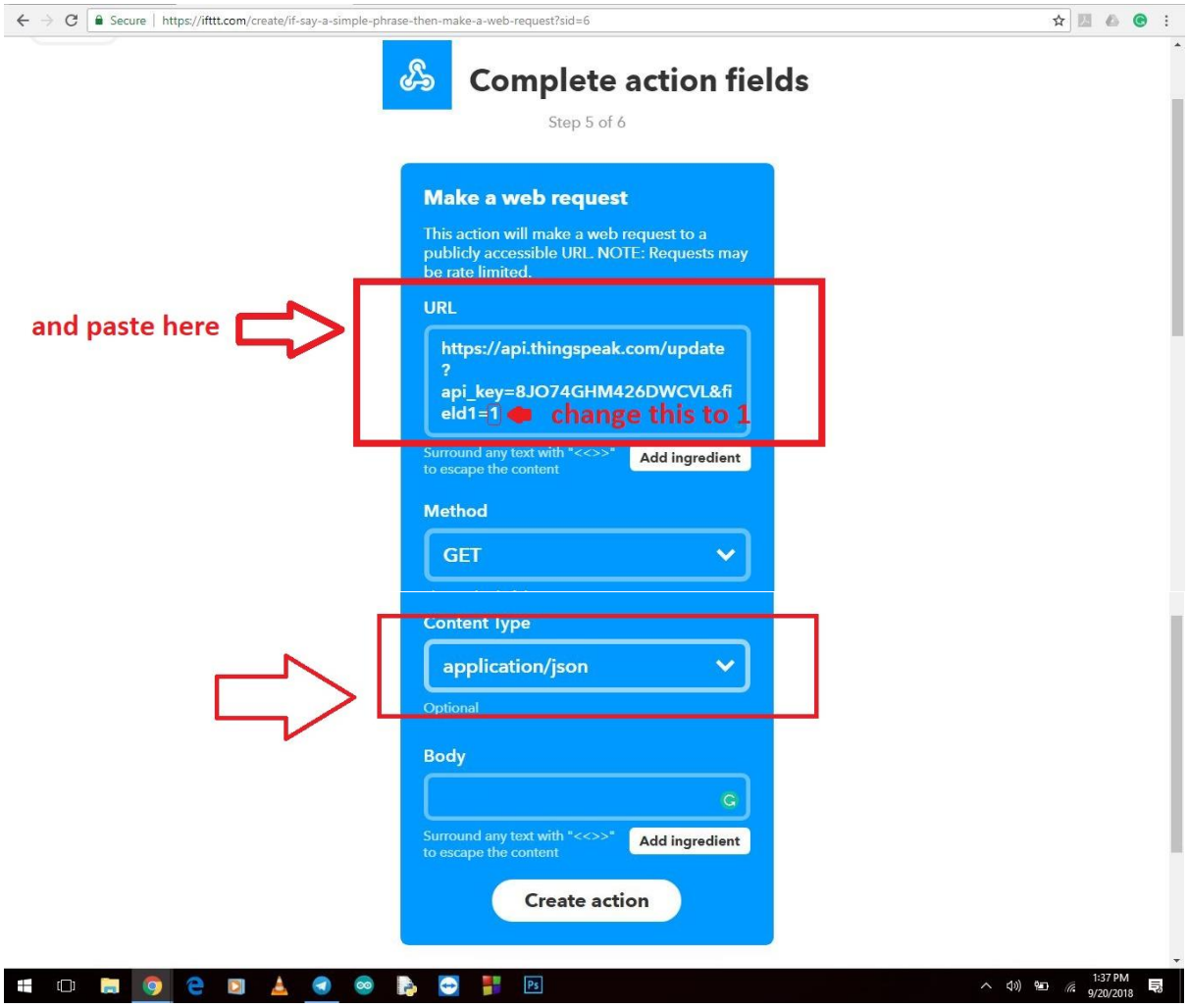


Step 13: Copy the “Update channel feed” link. Make sure you don’t copy “GET” prefix written in front of it.



Step 14: Paste the URL here and change the last values according to what data you want to send. The same data will be updated on ThingSpeak channel.

For eg: you can send “1” as a signal to turn on LED/Light.
And you can send “0” to turn it off.

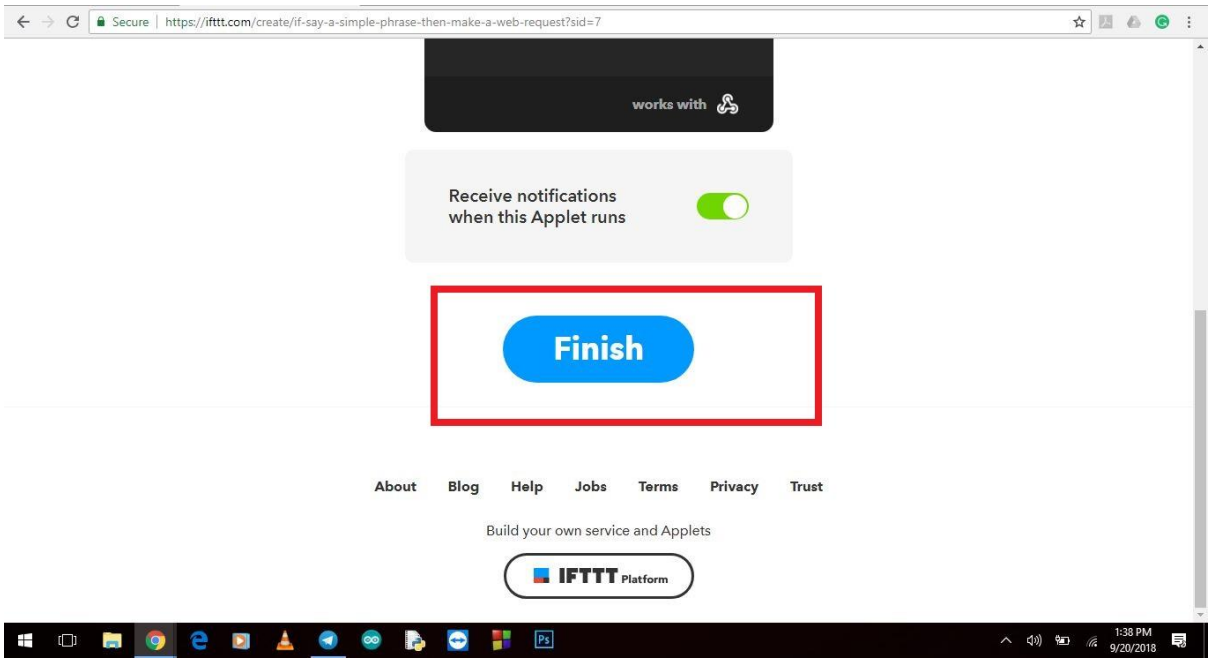


Make sure you select json from the Method drop down menu

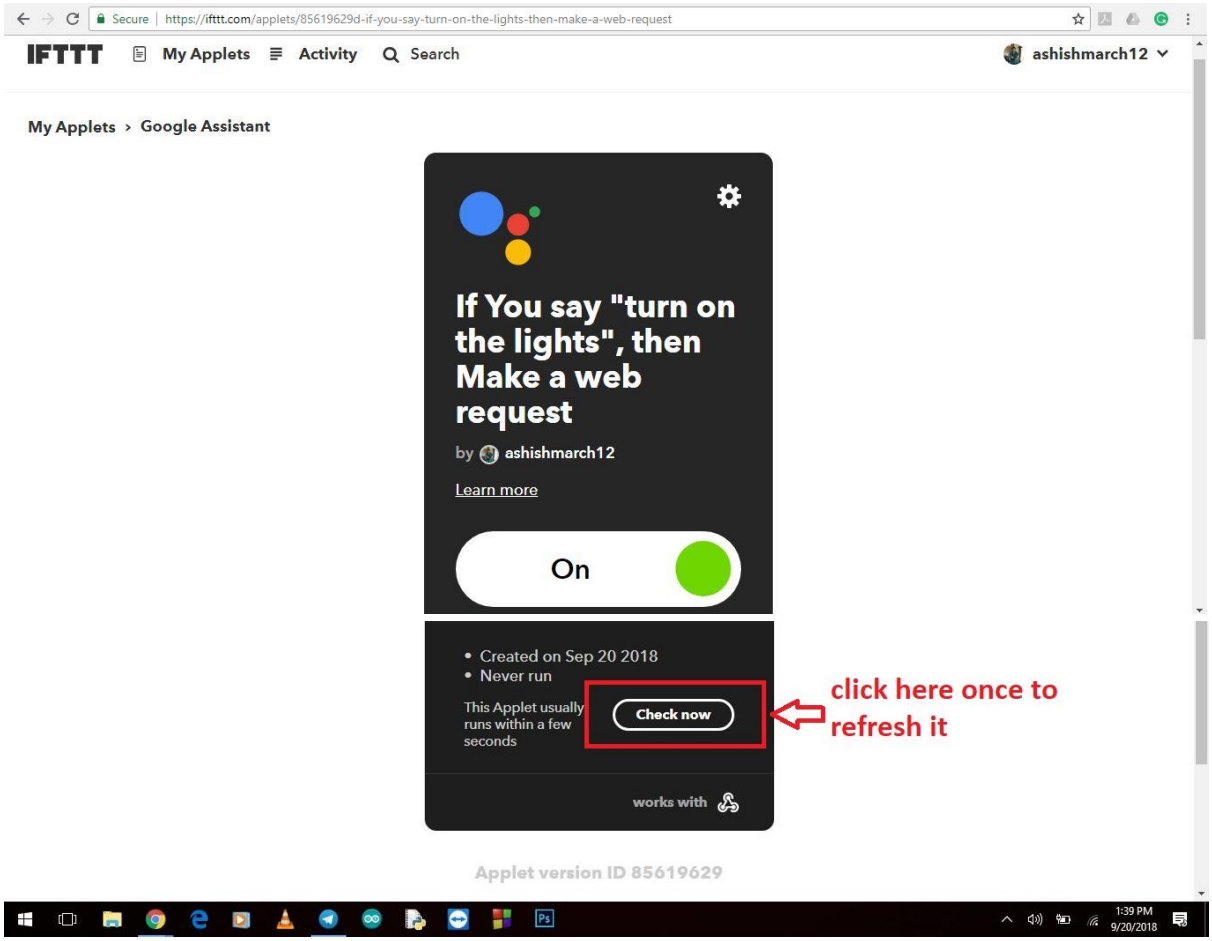
Select content type as application/json

Now click on “Create action”.

Step 15: Click on “Finish”.



Step 16: Click on “check now”.



3. Code to Fetch data from ThingSpeak Channel

```
import json
import requests
import time
import RPi.GPIO as GPIO
led = 3
GPIO.setmode(GPIO.BOARD)
GPIO.setup(led,GPIO.OUT)
myserverURL = "https://www..... enter your URL here"
while(True):
 data=requests.get(myserverURL)
 if data.status_code!=200:
  print("error");
 try:
  data=json.loads(data.text)
 except:
  data=None;
 if data!=None:
  value =data["feeds"][0]["field1"]
  print("value = %s" % (value))
  if value=='1':
     GPIO.output(led,True)
  if value=='0':
     GPIO.output(led,False)
  time.sleep(0.01)
```