**Sumegh Anglekar**

**Cloud Functions & Pub/Sub – Assessment**

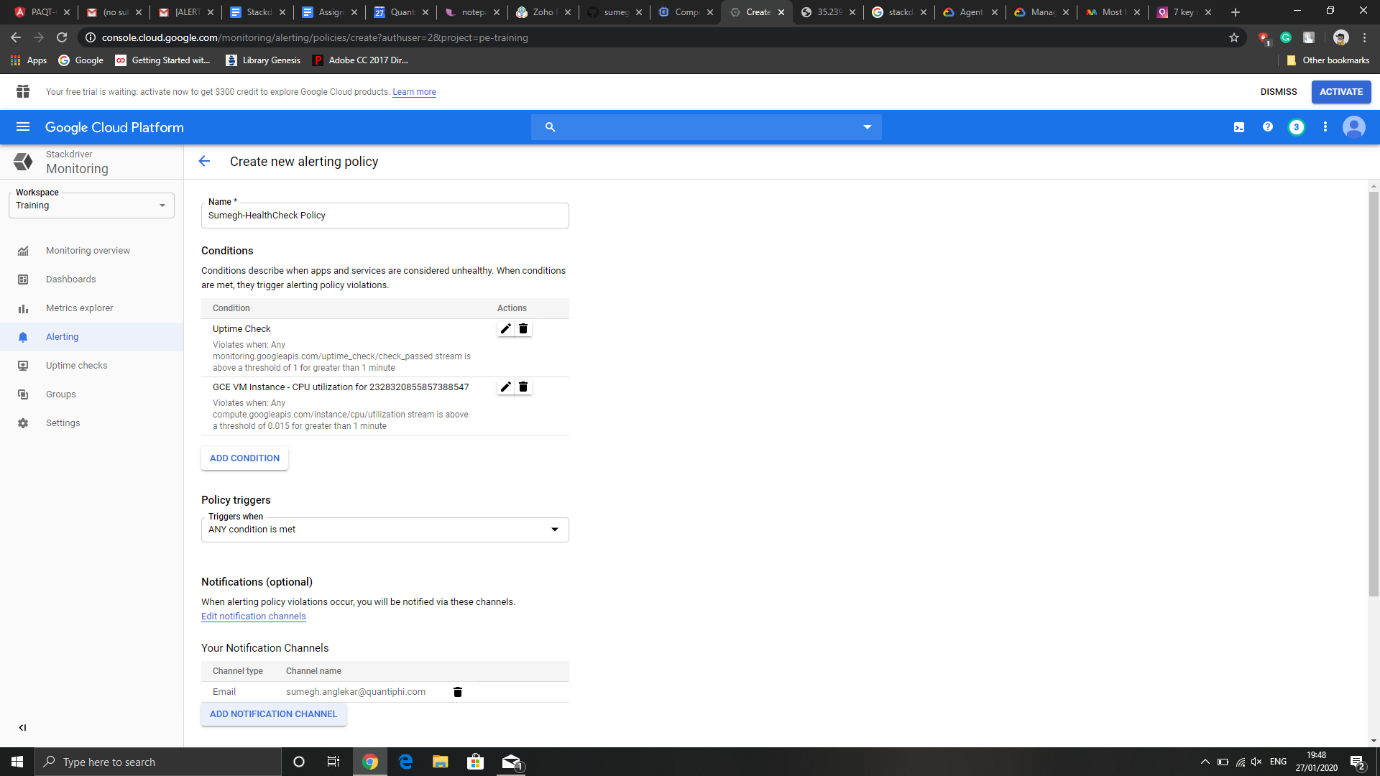
1. **Steps to export all the logs related to firewall rules to BigQuery for further analysis. Use console. (Only export to BigQuery, analysis not required). (1m)**

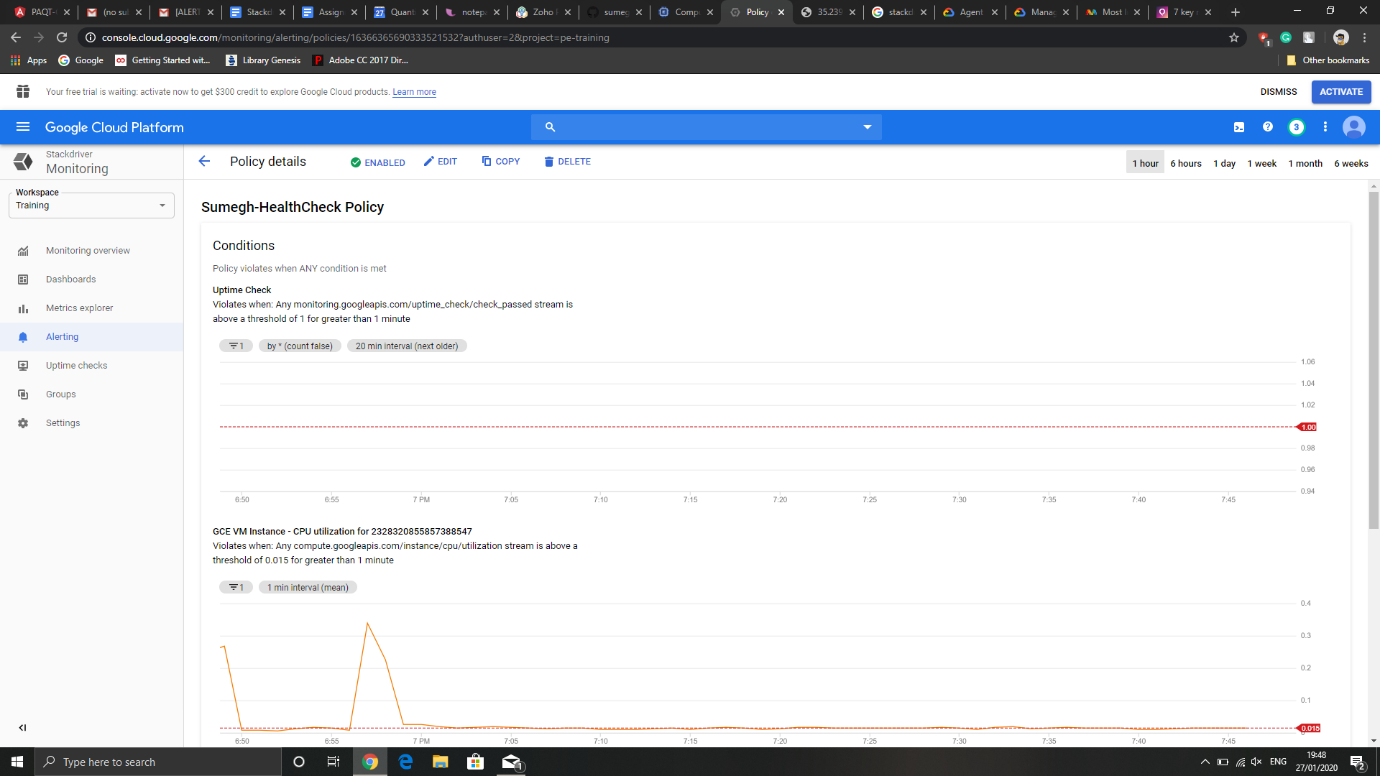
1. In Stackdriver Logging, at the top of Log Exports page, select on Create export  
2. Click on Edit Export  
3. Enter the Sink name, service and destination  
In Sink Service, we select a destination service, here we click on BigQuery  
In Sink Destination, select or create the particular dataset to receive the exported logs.  
4. Click on Update Sink to create a sink  
  
To view the logs in BigQuery-  
1. Go to BigQuery UI  
2. Select the dataset used as the sink's destination  
3.Select one of the dataset's tables.

The log entries are visible on the Details tab.

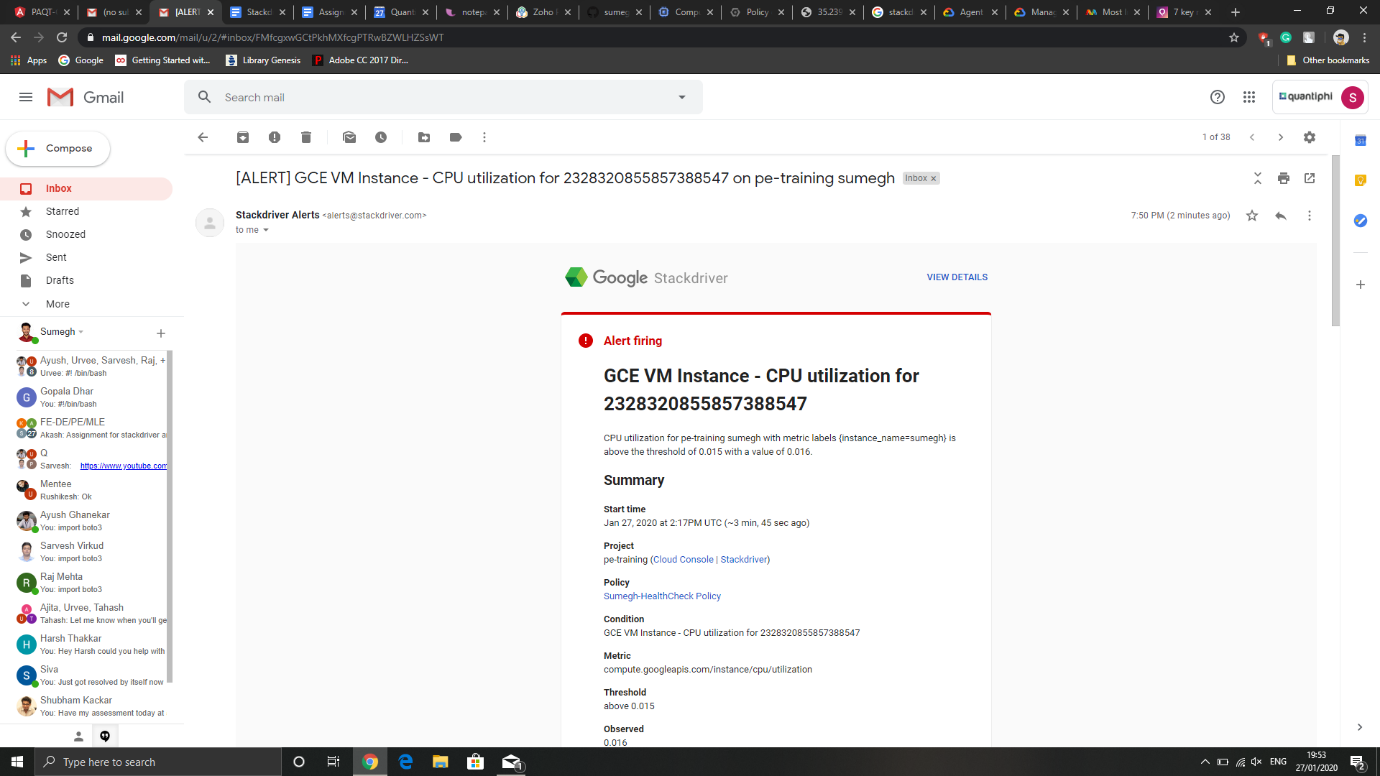
1. **Configure Apache2 HTTP server on a GCE VM instance and setup an email alert notification which triggers when the health check of the instance fails. Use console. (1.5m)**

**Policy:**

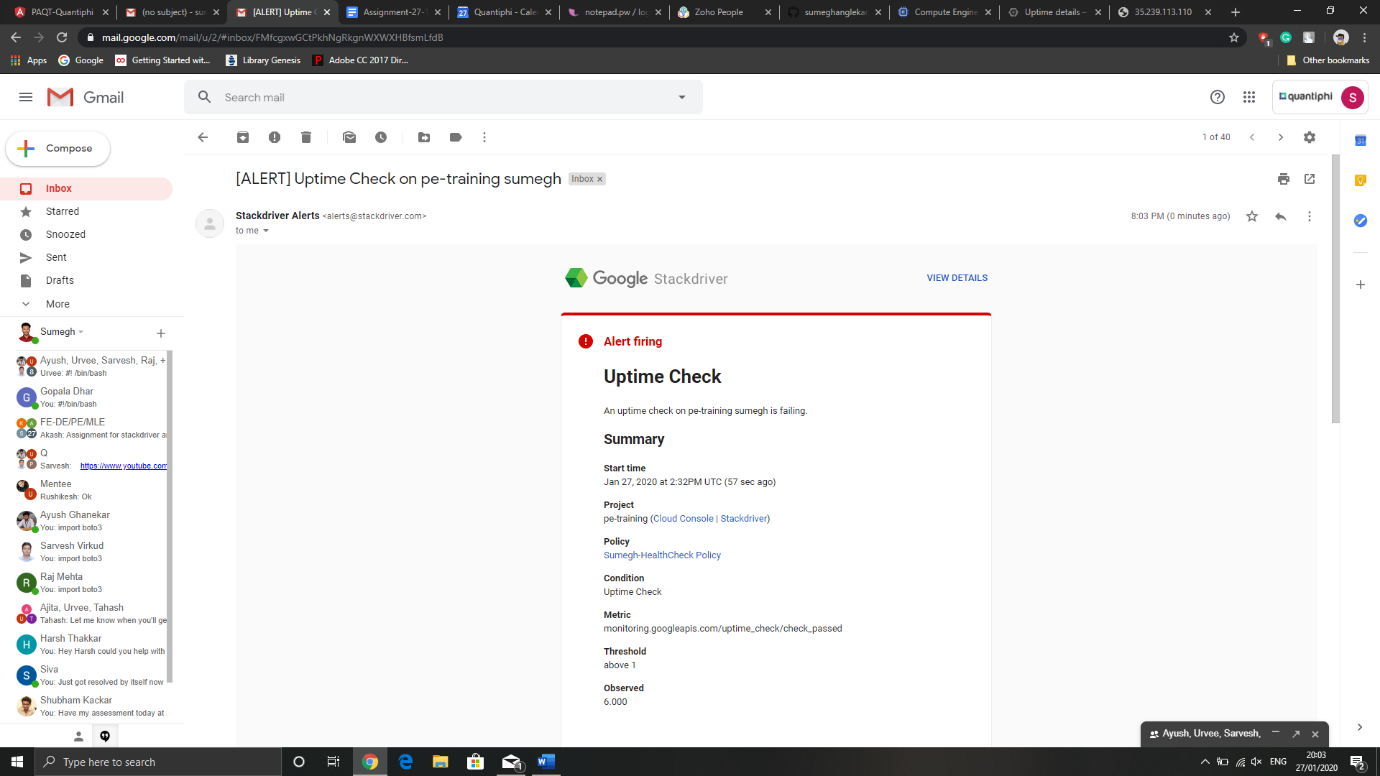




**CPU Utilization Fail:**



**Uptime Check Fail:**



1. **Create a Cloud Function to convert the pub/sub message to json file and store it in GCS bucket  (2.5m)**

**Eg:**

**If message published is:  
{**

**"name":"test-file",**

**"content":'{"source": "pub/sub", "destination": "gcs"}'**

**}**

**Then there should be a file `test-file.json` in the destination bucket with the content value.**

import base64

from gcloud import storage

import os

import json

def hello\_pubsub(event, context):

pubsub\_message = base64.b64decode(event['data']).decode('utf-8')

print(type(pubsub\_message))

print(pubsub\_message)

list1 = pubsub\_message.split(" ")

print(list1)

text = {

"name":list1[0],

"content":

{

"source":list1[1],

"destination":list1[2]

}

}

print(text)

filename = "/tmp/"+str(list1[0])+".json"

with open(filename, "w") as write\_file:

json.dump(text, write\_file)

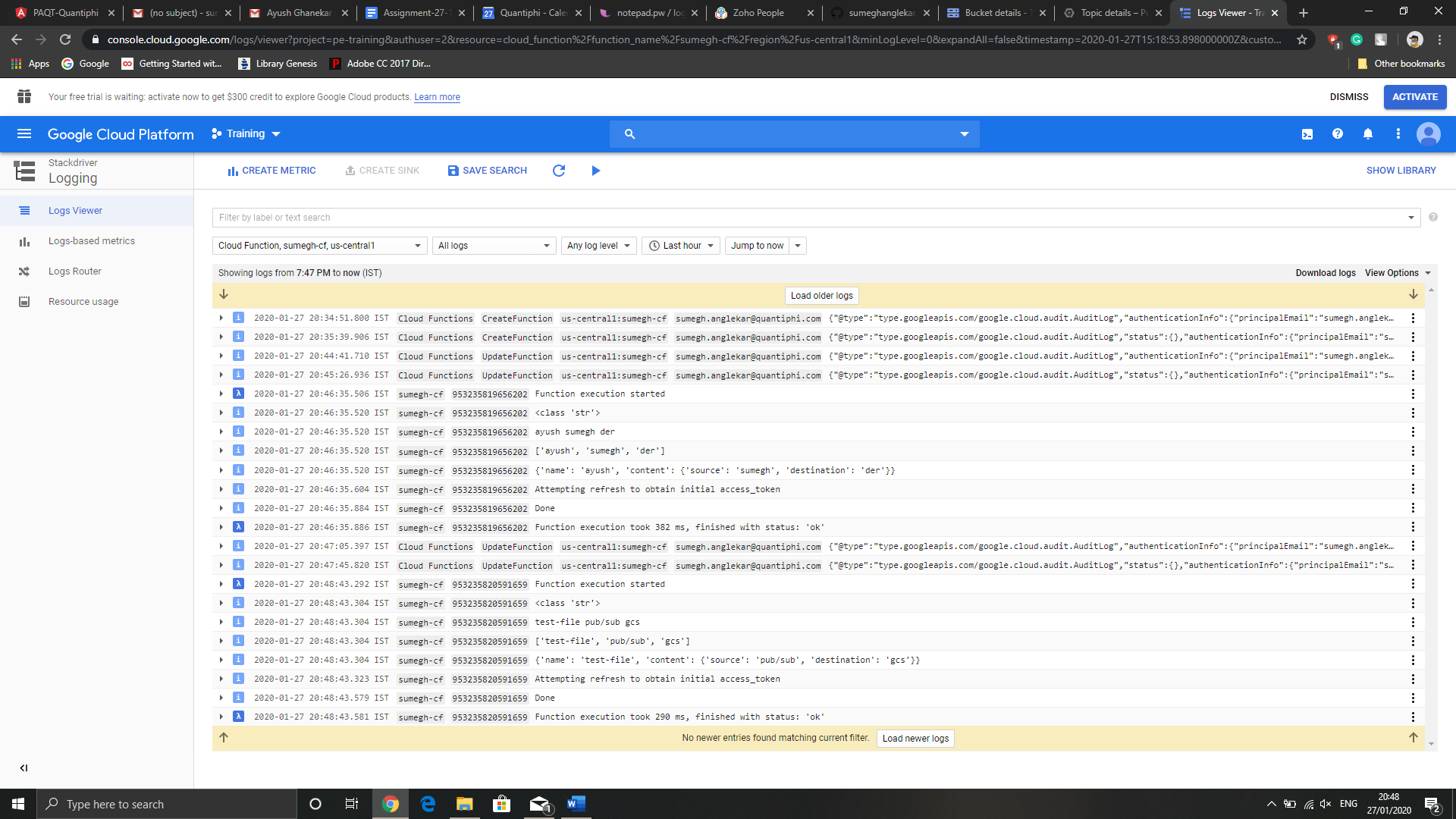
client = storage.Client(project='Training')

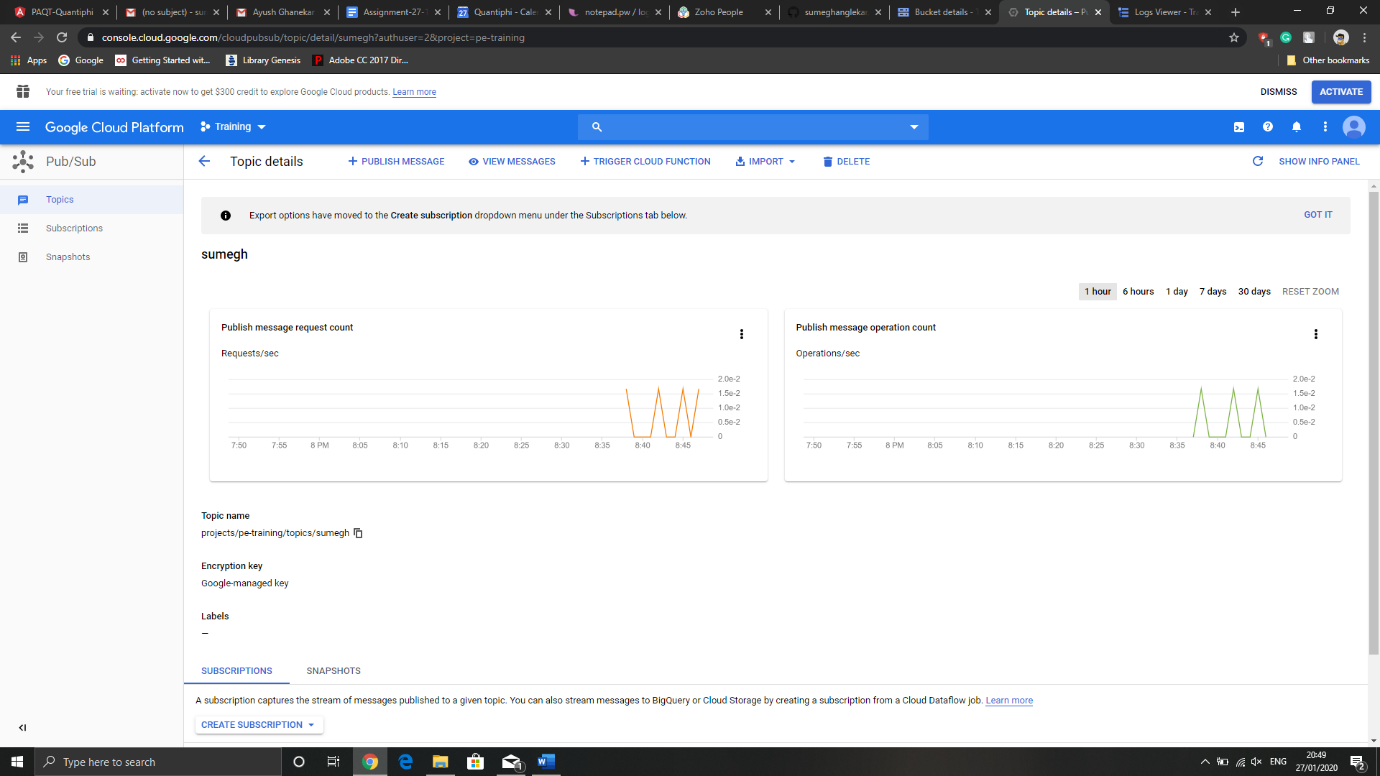
bucket = client.get\_bucket('sumegh-bucket')

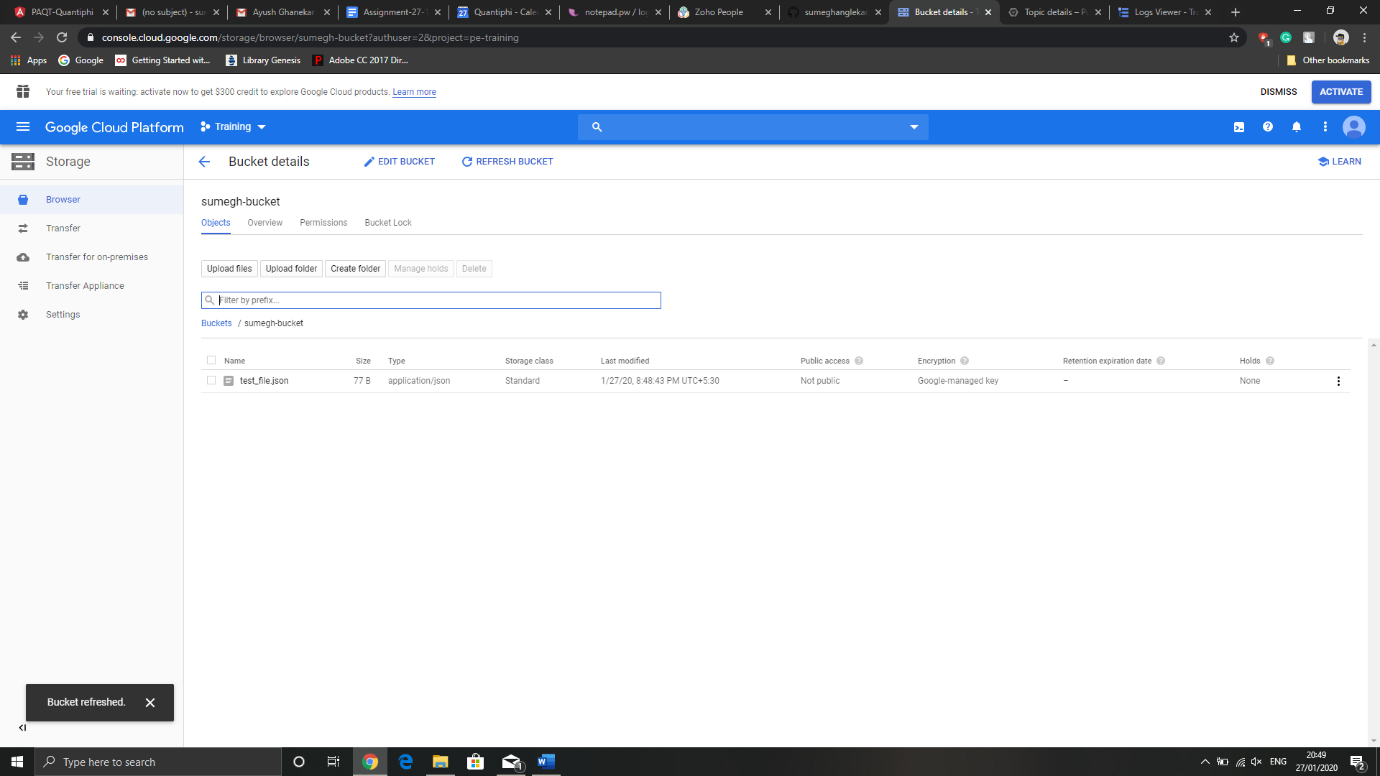
blob = bucket.blob('test\_file.json')

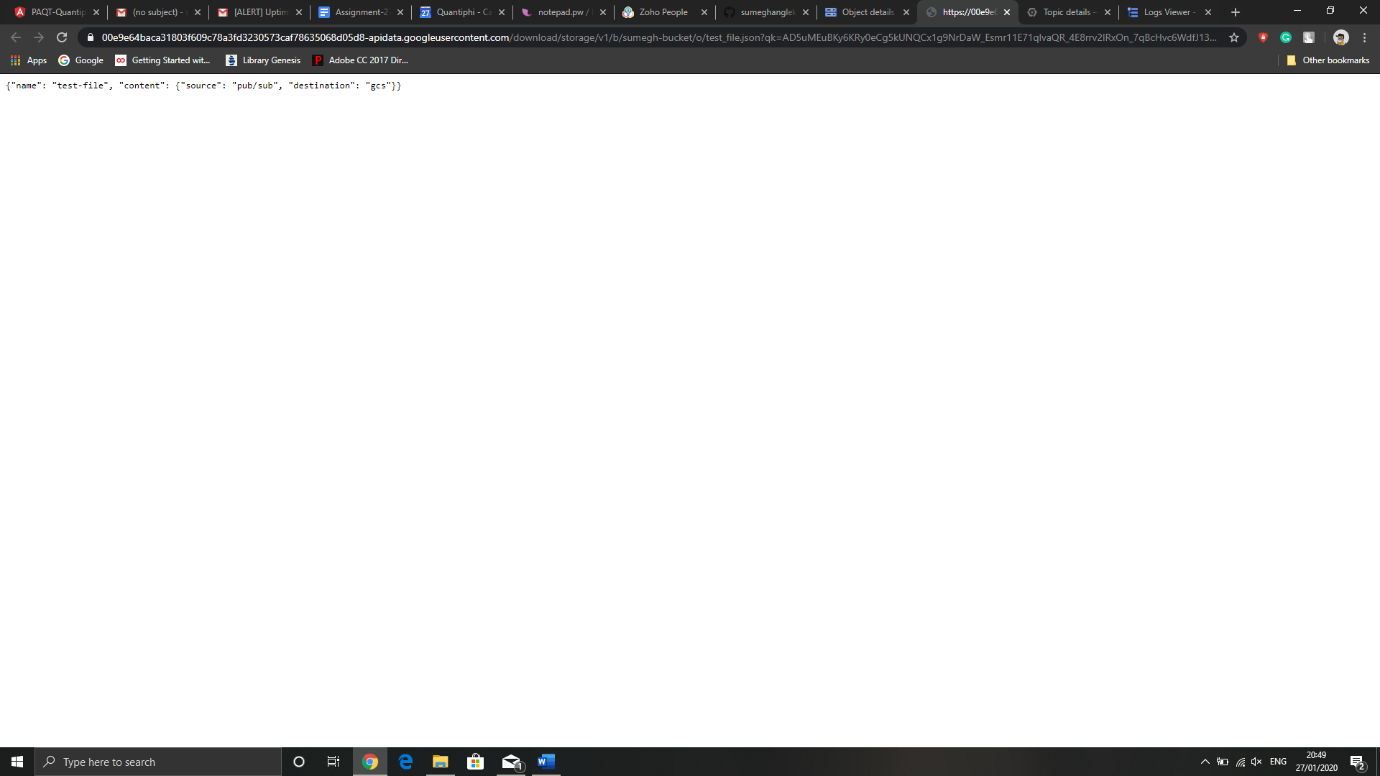
blob.upload\_from\_filename(filename)

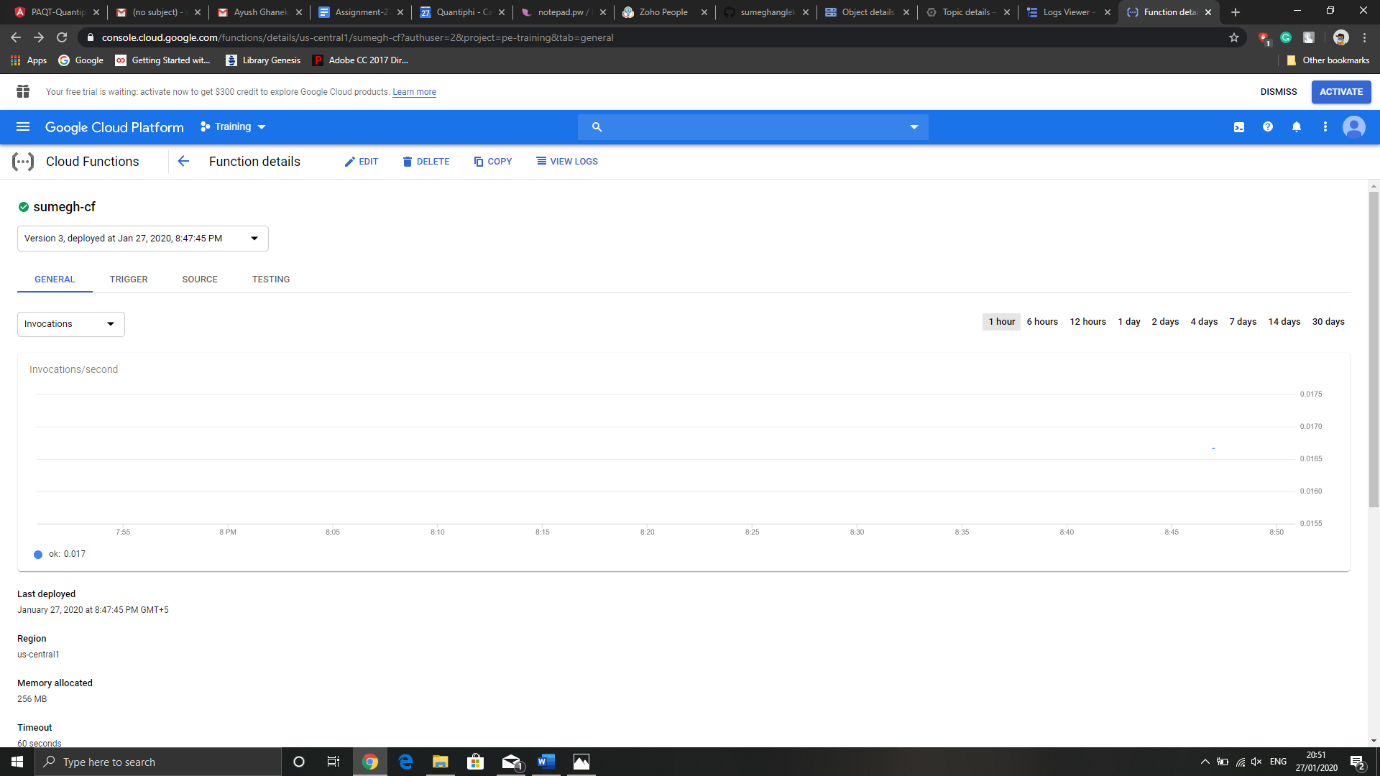
print("Done")











**Direct Insertion as JSON**

import base64

from gcloud import storage

import os

import json

def hello\_pubsub(event, context):

pubsub\_message = base64.b64decode(event['data']).decode('utf-8')

print(type(pubsub\_message))

print(pubsub\_message)

json\_data = eval(pubsub\_message)

print(json\_data)

print(type(json\_data))

filename = "/tmp/"+str(json\_data['name'])+".json"

print(filename)

with open(filename, "w") as write\_file:

json.dump(json\_data, write\_file)

client = storage.Client(project='Training')

bucket = client.get\_bucket('sumegh-bucket')

blob = bucket.blob(filename)

blob.upload\_from\_filename(filename)

print("Execution Complete")

