



## Assignment - Lab 6

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1. Codes and screenshots have been uploaded in the zip file.

```
me16b172@instance-2:~/lab6$ python3 sub.py
Listening for messages on projects/phonix-silo-266809/subscriptions/newsub..

Received message: Message {
  data: b'addresses.csv'
  ordering_key: ''
  attributes: {}
}
22
```

2. There are two kinds of subscribers - pull and push subscribers. What are the differences between the two and when would you prefer one over the other?
  - a. Pull Subscriber:
    - i. Types are synchronous and asynchronous pull
    - ii. The client sends a request to the server to establish a connection.
    - iii. The server continuously sends messages to the connected client.
    - iv. The connection is eventually terminated either by the client or the server.
    - v. The Pull method relies on a request/response model:
      1. The client sends a request to the server for messages.
      2. The server replies with zero or more messages and closes the connection.
  - b. Push Subscriber:
    - i. It can be used to send all messages as HTTP POST requests to a webhook.
    - ii. push subscriptions can be configured to provide an authorization header to allow the endpoints to authenticate the requests.
    - iii. Unlike Pull, For push subscriptions, Pub/Sub does not send a negative acknowledgment.
    - iv. The push endpoint can use the token to validate that the request is issued on behalf of the service account associated with the subscription and make an authorization decision.
    - v. Cloud Run service automatically authenticates HTTP calls by verifying Pub/Sub generated tokens