

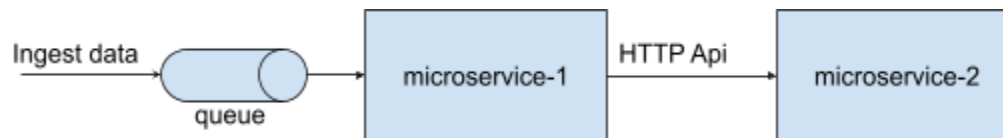
# Cloud Developer Home Assessment

**Hiring Manager: Birender Panwar**

## Homework Case study - 1

### **Focus area**

System design and implementation skills



### **Problem statement**

Implement API retry mechanism to ensure reliable data delivery.

### **Implementation shall consider the following requirements:**

- Microservice-1 consumes the data from queue where data is received in-order
- Queue can be any messaging broker such as kafka, GCP pub/sub, MQTT broker etc. First-in, first-out queuing policy
- Microservice-2 implement an POST api that is called by Microservice-1
- Microservice-1 consume data from queue and post the same data to Microservice-2 using an POST api
- Microservice-1 shall implement a retry mechanism if api fails. As an example if microservice-2 is down, the api will fail and Microservice-1 shall retry it again
- Retry Policy: Retry every 10 secs, Unlimited retry
- With above retry policy, message is never lost and all the data in queue shall finally be delivered to the microservice-2

### **Ask from Candidates?**

- Approach document explaining the implementation details
- Implement both microservice-1 and 2 using spring-boot framework
- Use database of your choice to persist the data, if required
- If required any new microservice can be introduced to implement retry mechanism
- Submit runnable and working code