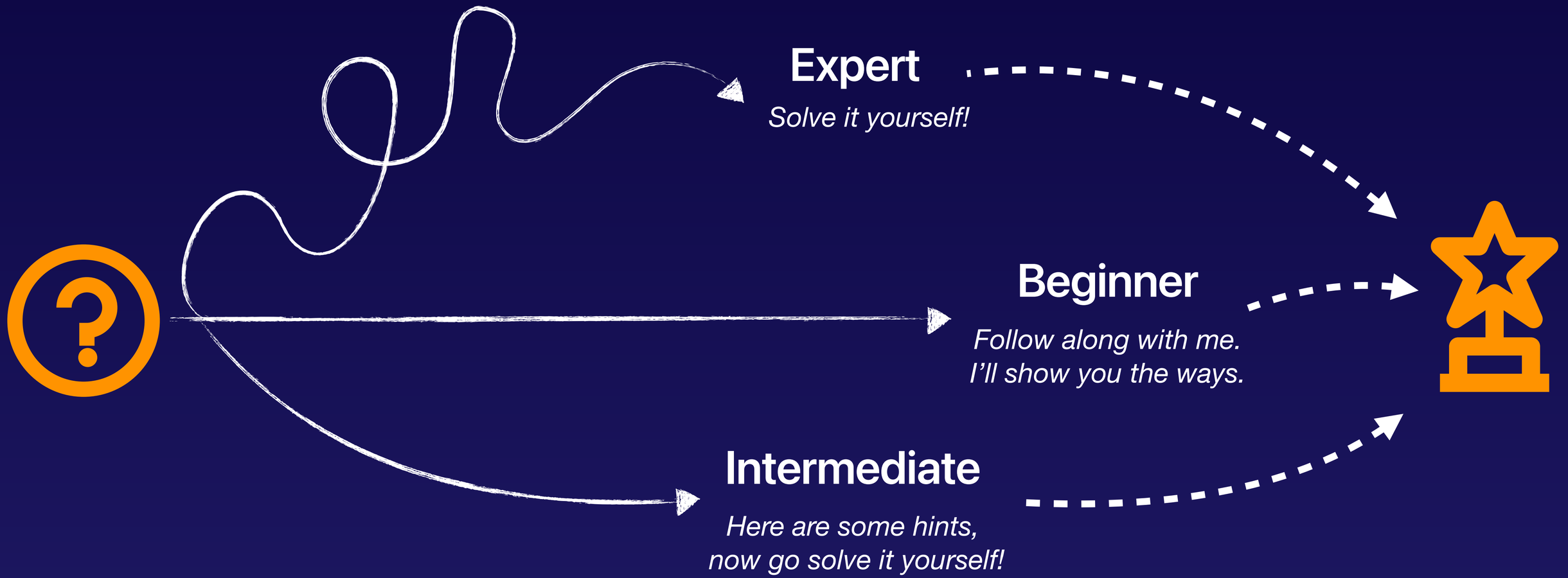
A CLOUD GURU

Streaming Data Collection Lab

Brock Tubre
INSTRUCTOR

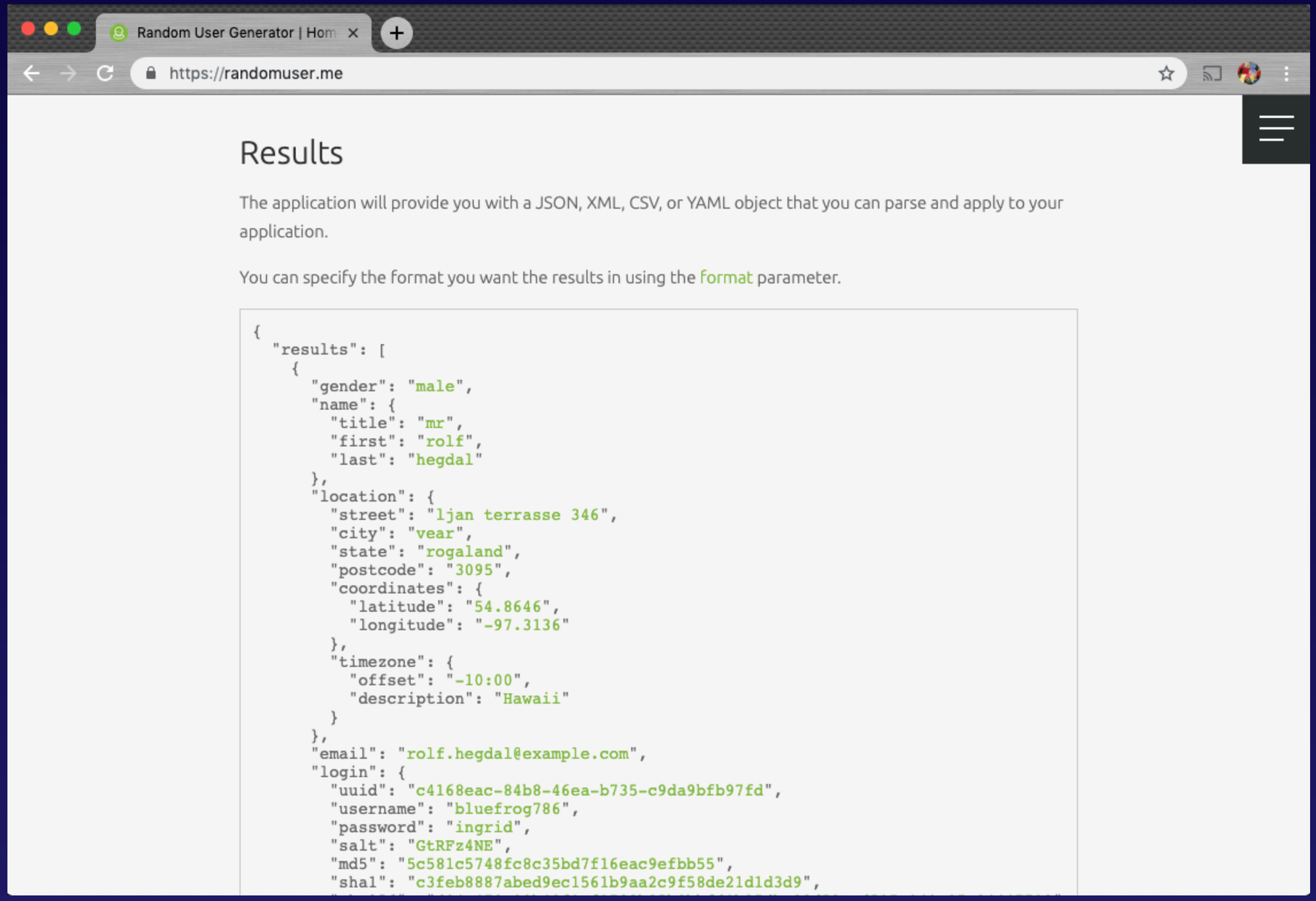
Choose Your Path



Use Case

You work for a company who has thousands of users interacting with the company's application. You have been tasked with capturing real-time data about the users for a marketing campaign. You need to capture information like name, age, gender, and location for users who are 21 and older.

Dummy User Data



Final results?

- JSON files
- Stored in S3
- First Name
- Last Name
- Age (>= 21)
- Gender
- Latitude
- Longitude

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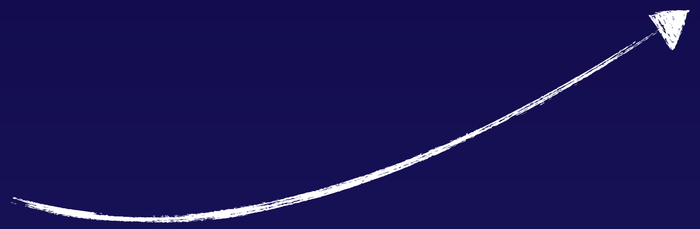


```
{
   “FIRST”:"gladimir",
   "LAST":"silveira",
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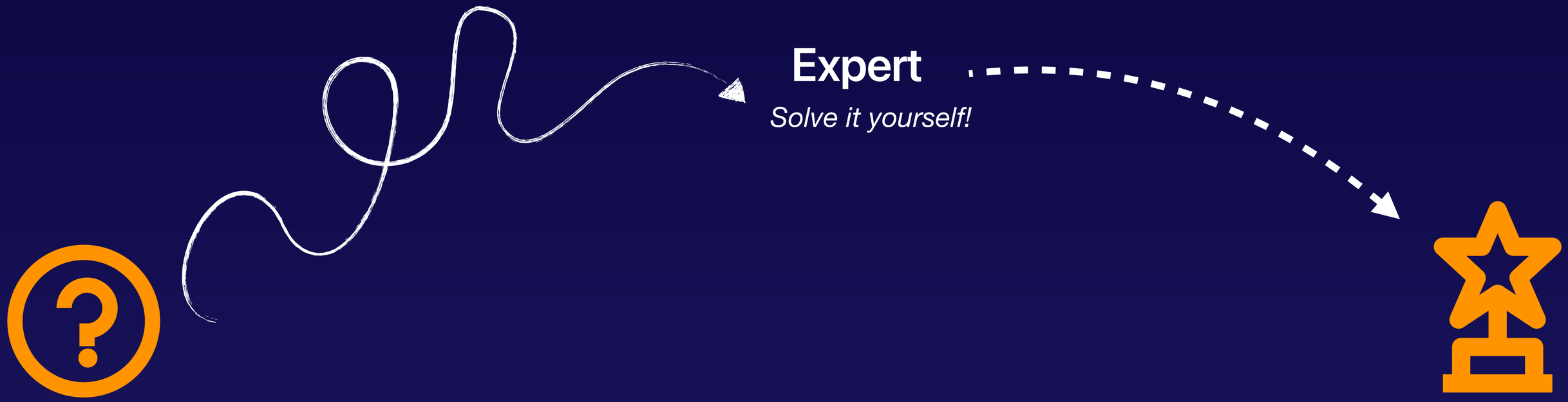
Good Luck!



Using PutRecord

Create a simple python program that simulates streaming data. Call the `PutRecord` to send data to Kinesis Streams for ingestion.

Using PutRecord


```
import requests
import boto3
import uuid
import time
import random
import json

client = boto3.client('kinesis', region_name='<INSERT_YOUR_REGION>')
partition_key = str(uuid.uuid4())

while True:
        r = requests.get('https://randomuser.me/api/?exc=login')
        data = json.dumps(r.json())
        client.put_record(
                StreamName='<INSERT_YOUR_STREAM_NAME>',
                Data=data,
                PartitionKey=partition_key)
        time.sleep(random.uniform(0, 1))
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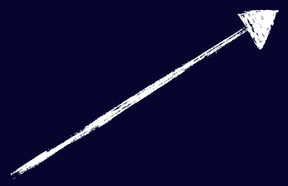

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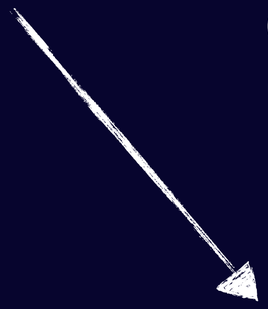

Transform and Load into S3

Find a way to transform the streaming data and output the results onto S3.

Final results?

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- Last Name
- Age (> 21)
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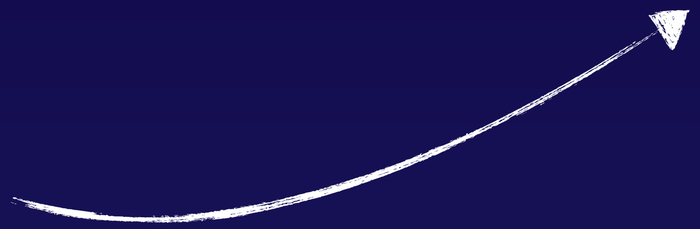


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Intermediate

Here are some hints,
now go solve it yourself!

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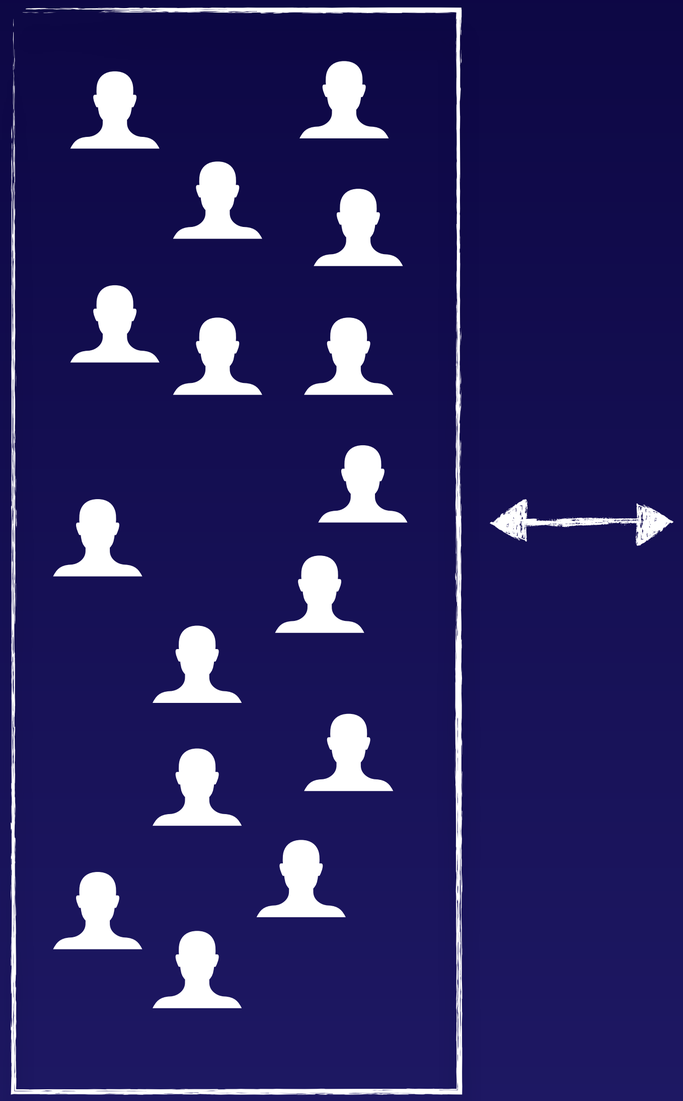
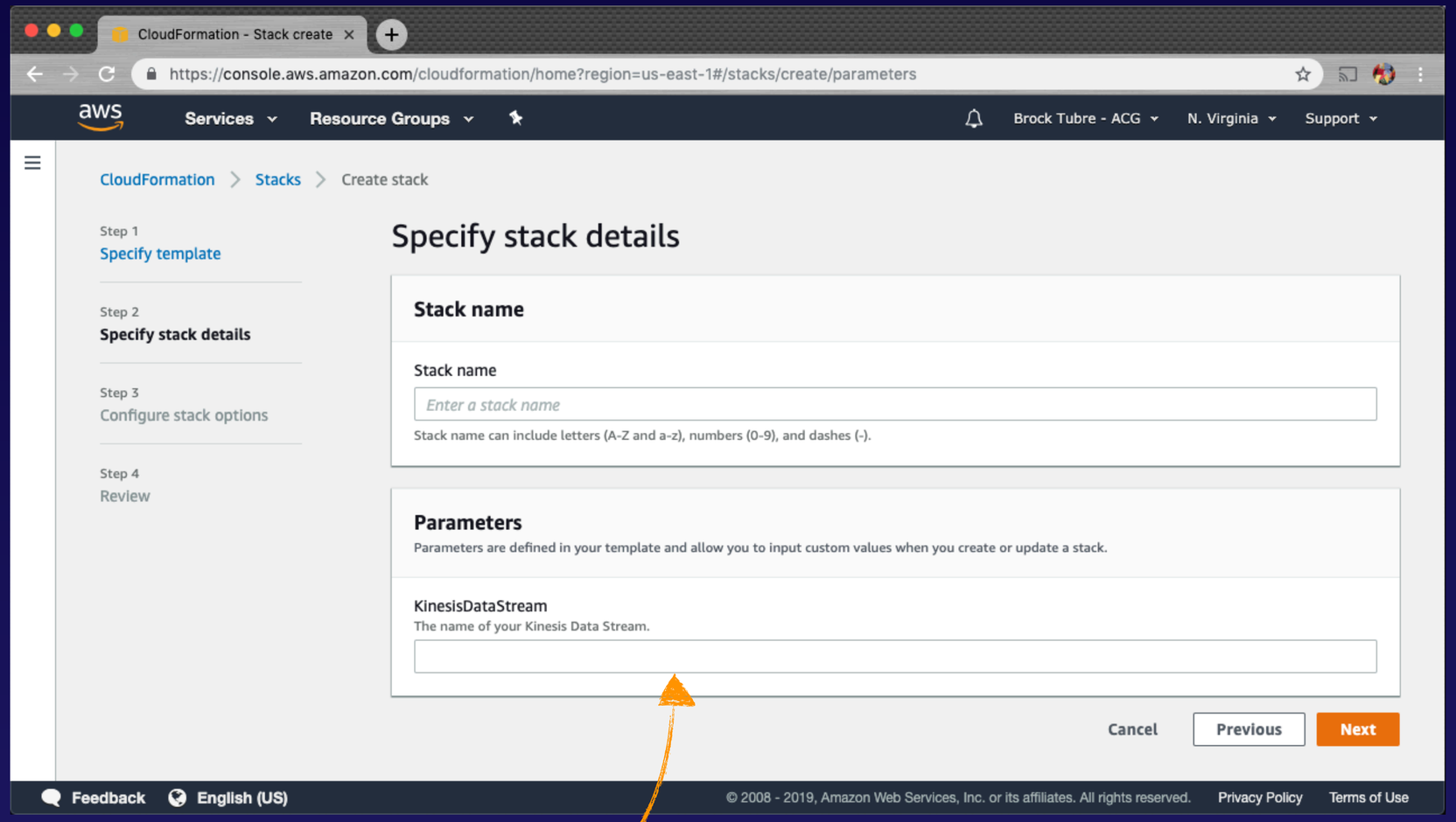
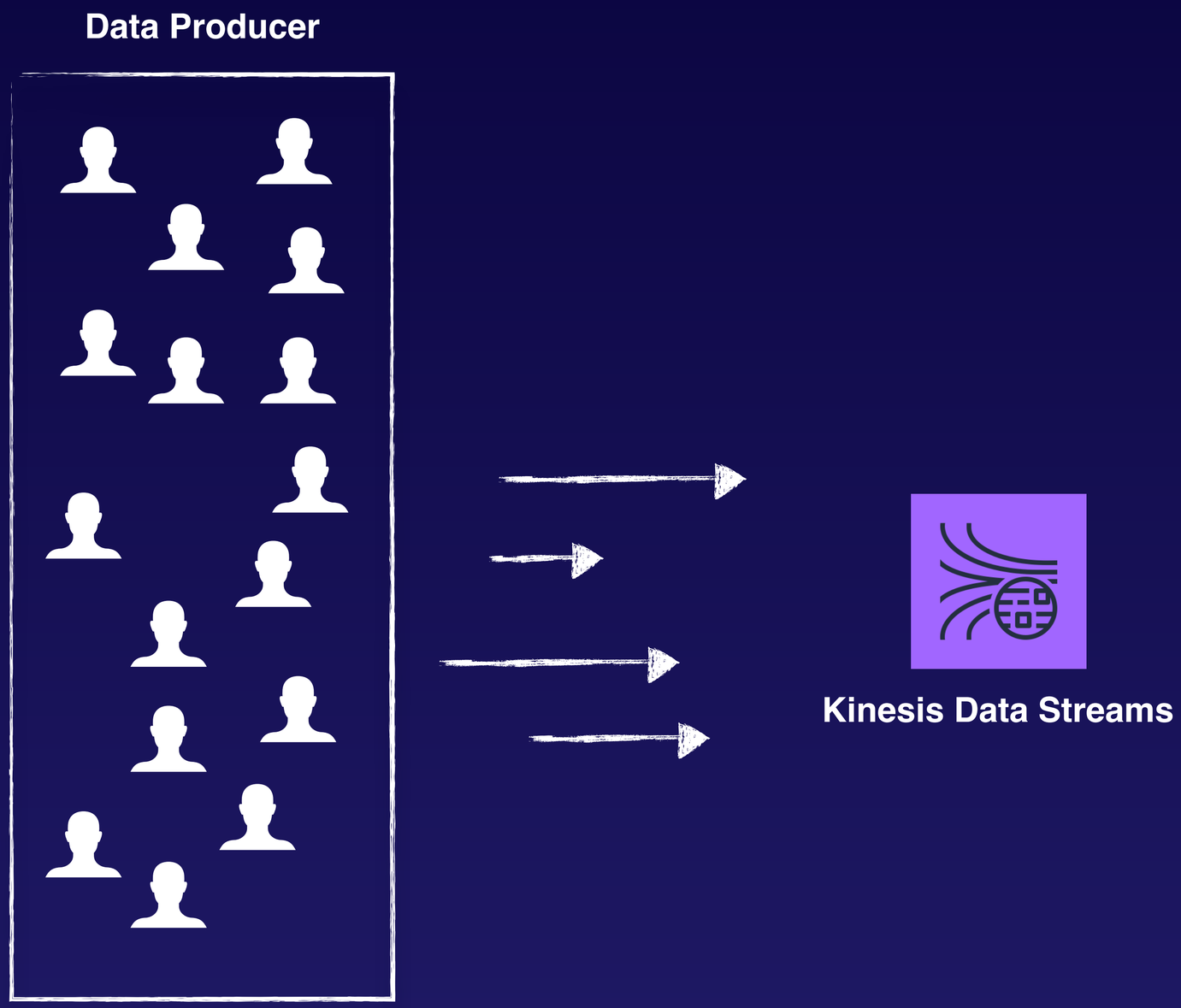
Data Producer





Insert your stream name here.

Streaming Data Collection Lab



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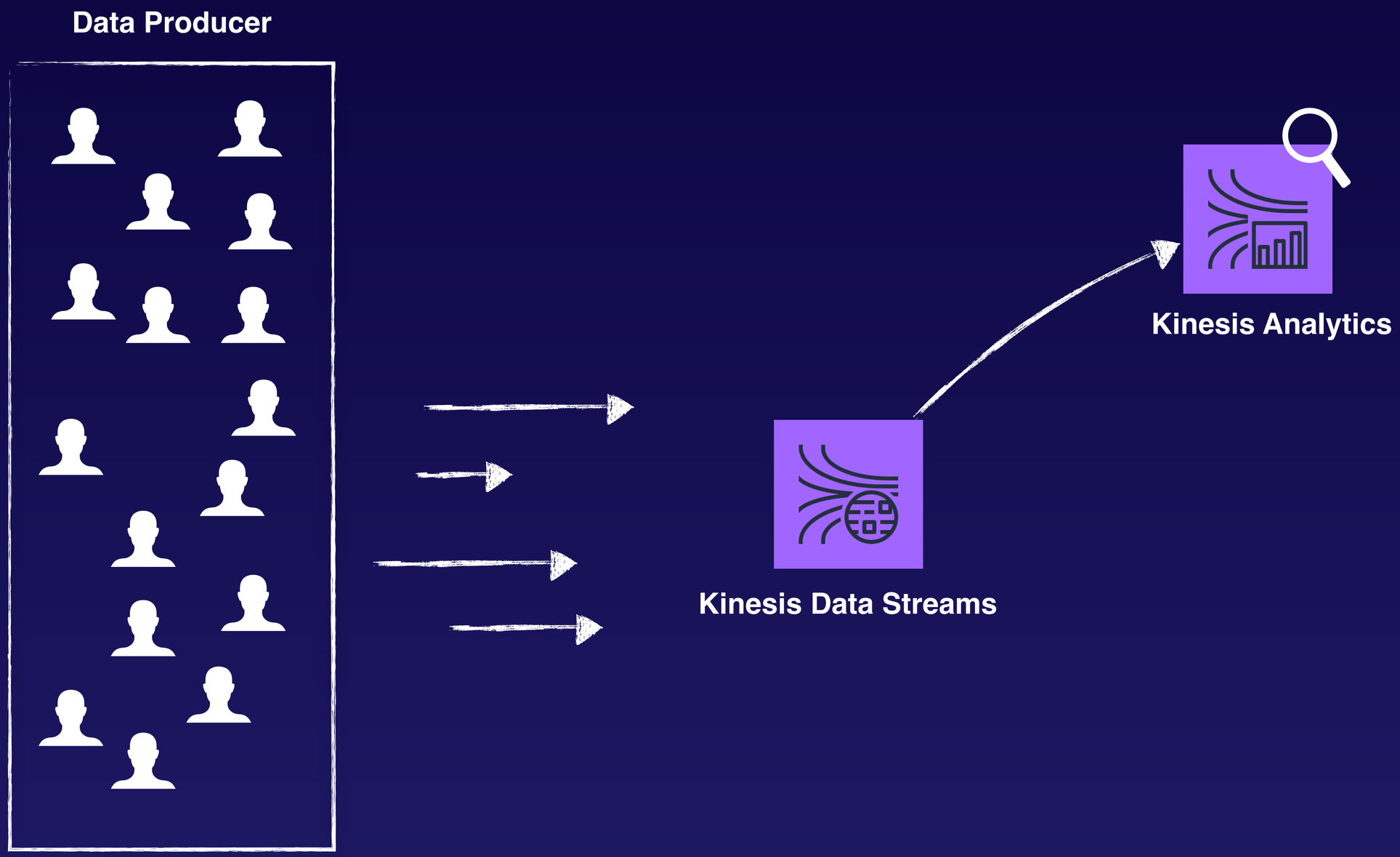

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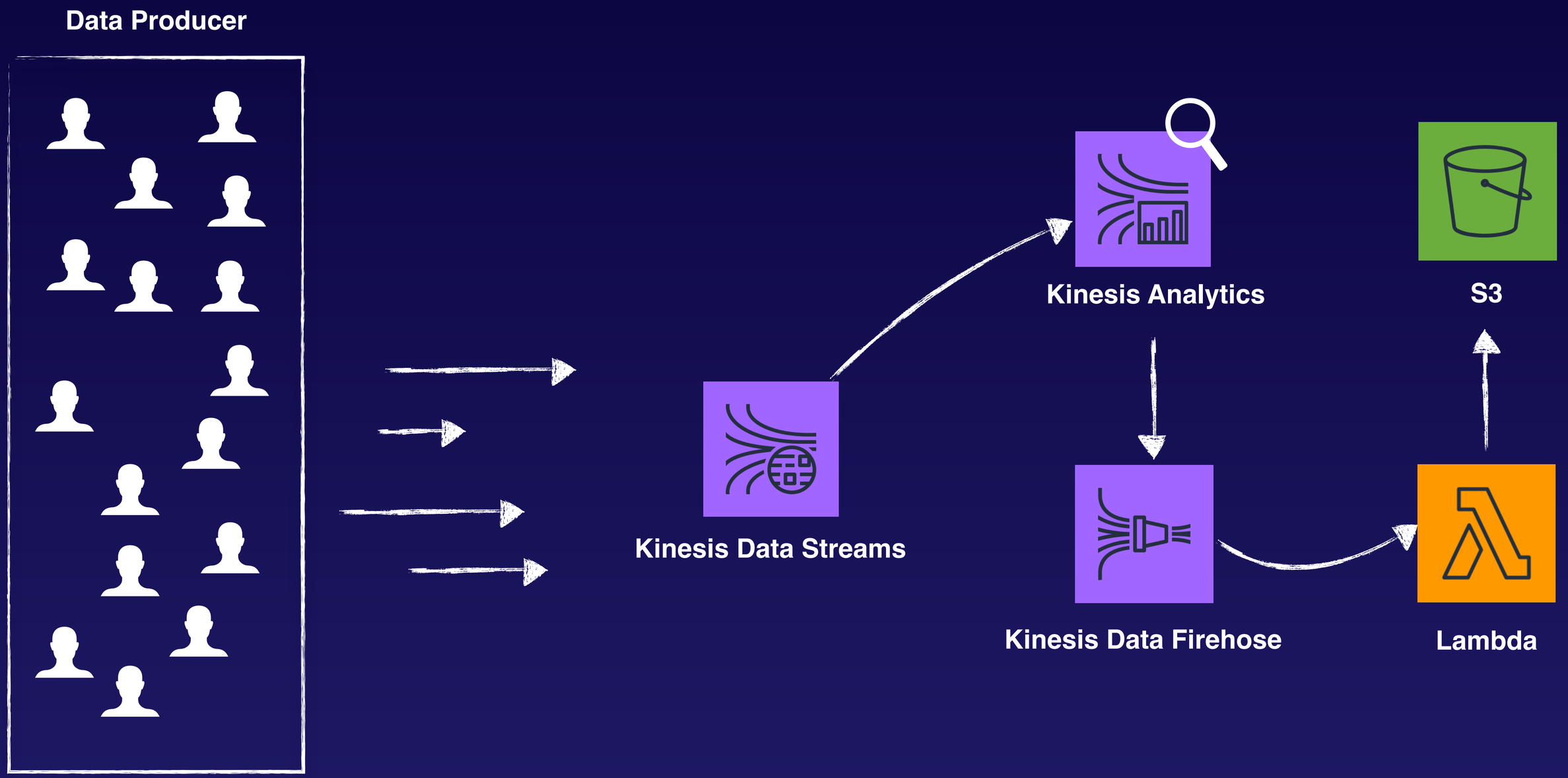

Good Luck!

Beginner

Follow along with me.
I'll show you the ways.