

# Data Engineer Technical Test

Thank you for taking the time to do out technical test.

## Description

Genscape ingests thousands of sensor daily on a daily basis. The purpose of this test is to develop a data pipeline that given a random generator of sensor data that generates data points in the following format:

```
{
  "id": "GLOBALLY_UNIQUE_IDENTIFIER",
  "type": "Sensor",
  "content": {
    "temperature_f": 90, // Temperature in Fahrenheit
    "time_of_measurement": "2019-06-24T15:00:00" // Datetime in ISO format
  }
}
```

Your task is to develop a pipeline that will ingest this sensor data, enrich with **temperature\_c**, and store in a **queue**.

Given elements arriving in that queue, you should develop another process that will ingest data from that **queue** and write into a **database**.

In a nutshell the steps to develop the project are:

1. Develop a random sensor data generator
2. Develop a program that will ingest this sensor data, transform and write it into a queue
3. Develop a program that will ingest data from that queue and write it into a database
4. Code needs to be versioned in a **Git** repository

## FAQ

Q. Which languages can I use?

A. We will not impose any language limitations but **Python** is highly desirable

Q. Which Database should I use?

A. There is no restriction to which database should be used but here are the list of databases currently being used in the company: Postgres, Elasticsearch, MongoDB, Redis, Kafka

Q. How much time do I have to complete the test?

A. 1 Week from the received date

**Extra Points:** Include concurrency or parallelism in the process, Include unit tests

Good luck and feel free to reach out in case you have any questions