



# Devops Engineer - Home assignment

## High level assignment

Create a docker compose yaml file which creates these objects:

- Twitter API fetcher
- Kafka cluster
- Kafka consumer

As a whole pipeline, the docker compose should:

- Consume tweets from Twitter with a DevOps hashtag (#DevOps)
- Extract specific data from the tweets
- Write the extracted data to Kafka
- Consume the data from Kafka, and print to stdout

Expected results:

- All source code
- Docker compose yaml file
- Document that describes the problems and solutions you faced during the development process
- A document that describes the Kafka cluster topology:
  - Zookeeper
  - Kafka brokers
  - Topic configuration
  - An architecture explanation, including a diagram

## Twitter API fetcher

Write code that will read from Twitter, transform the data, and write it to Kafka

- Write code that reads Tweets from Twitter API, with a #DevOps hashtag filter
- Extract the following data from the tweet:
  - Tweet ID
  - User Name
  - List of Hashtags
- Send extracted data to a Kafka

## Kafka cluster

Create a Kafka cluster which consists of:

- Backend Zookeeper(s)
- 3 Kafka Brokers

## Kafka consumer

Write code that consumes the data we produced to Kafka, and writes it to stdout