



**Adobe Romania**

*Changing the World Through Digital Experiences*





# SRE –Data Systems: Assignment Test

The goal of this project is to set up a service that :

- (1) tracks all changes made to a RDBMS and
- (2) forwards them to a downstream messaging system.

This pattern is known in the industry as CDC (change data capture) and has several implementations available out-of-the box.

The RDBMS that you will use for this project is mySQL and the messaging system is Kafka or Pulsar (your choice).

There are a few requirements for this to work:

- ✓ has to react to the changes by persisting them into the application has to work on both Linux and macOS.
- We recommend containerization and Kubernetes but we also accept solutions with other configuration management tools as Ansible, Salt, Puppet or shell scripting.
- ✓ the application messaging system (Kafka or Pulsar).
- There are a few tools that can help you with this, for example there is a Kafka Connector that is designed for mySQL CDC.

Deliverables are:

any recipes/scripts/source code for automated deployment of the whole system and it's dependancies (application, Kafka, Zookeeper or any other dependancy)

the code should be in a git repository

we want to be able to run the whole setup with minimal configurations. If you think a README might be useful, add it to the git repo.

Deadline for submission: **Wednesday, 25<sup>th</sup> of March at 13:00**

For any questions or clarifications needed, please contact us.

*Closure: After the homework is delivered we will schedule a live discussion to get over how you did the research, what were your options and criteria for choosing one over the other and to get a feeling of the general implementation.*