Advertising Data ETL-V

You are going to write a simple web application, that fetches advertising data from a given endpoint to eventually visualize it on a simple interactive dashboard.

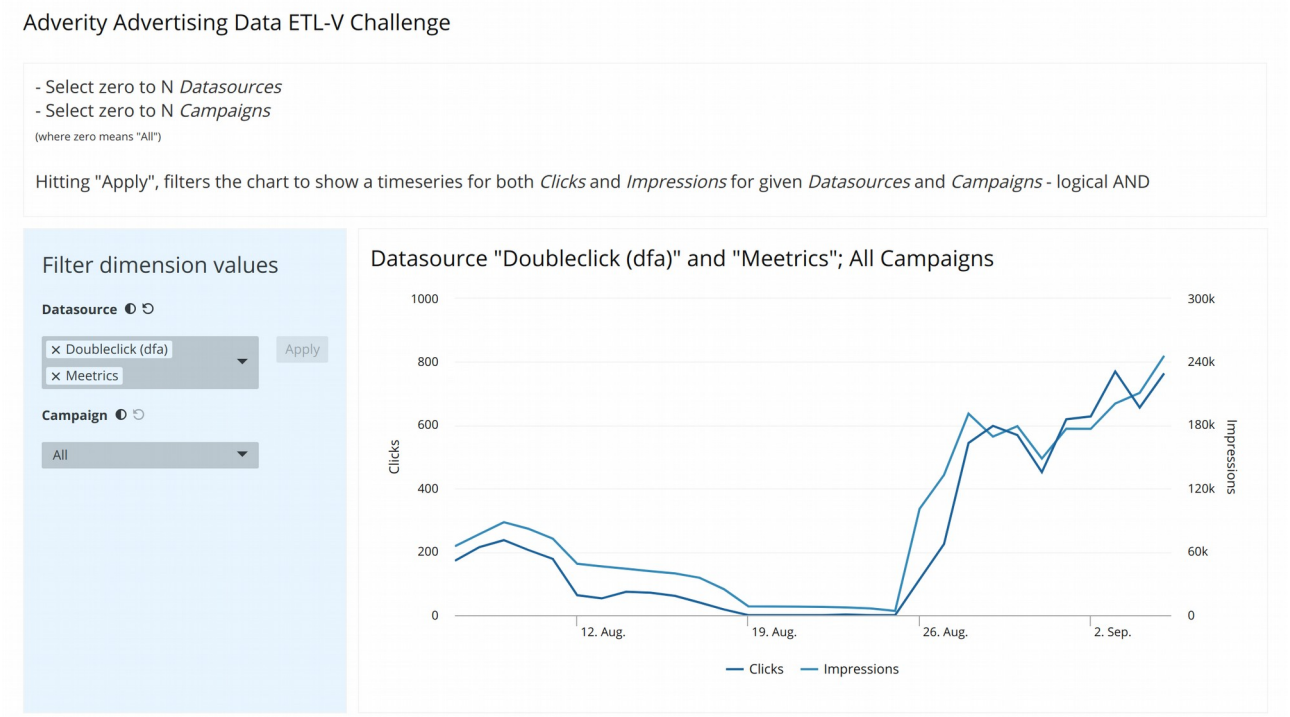
For this, you need to first extract the data (a CSV file) from here:

- http://adverity-challenge.s3-website-eu-west-1.amazonaws.com/DAMKBAoDBwoDBAkOBAYFCw.csv

The data contains:

- one time dimension (*Date*)
- two regular dimensions (*Campaign*, *Datasource*)
- two metrics (*Clicks*, *Impressions*)

The goal is to provide a **simple dashboard**, that shows those **metrics** for given regular dimension values (as user input) **over time**. It could look like this:



Initially, no *Datasource* or *Campaign* is selected, hence the chart should show *Clicks* and *Impressions* over time for the entire data set. Users can then filter the dataset for both *Datasources* and *Campaigns*.

Keep your UI/UX simple and only implement basic functionalities. The focus lies on the proper design of your application.

If not told otherwise, use one of the following tech stacks:

A) React Frontend only

Use react with

- create-react-app to bootstrap your application
- with a proper design of your components
- react hooks to manage state and side effects
- lodash to transform your data
- an idiomatic functional programming approach with javascript / es6

to implement the entire application as a pure frontend application - that fetches the data, does the heavy computation and visualizes the result.

B) Django only

Use django (with django views) to extract, transform, load, query and visualize the data.

C) Backend and frontend

Use either **django** or **micronaut** (with groovy or kotlin) to implement the backend.

And **react** with create-react-app for the frontend.

Carefully draw boundaries on who is responsible for what.