Creating a Scaler

One of Shareably's strategies as a publisher is to purchase traffic on various social media platforms. We leverage the data we receive from these social platforms and our ad servers to make calculated decisions on which social media platforms and campaigns we should be spending more advertising dollars into and which ones we should avoid. Integral to the success of this strategy is designing a scaler that is capable of scaling up the spend on profitable campaigns while shuttering or scaling down the spend on unprofitable campaigns.

In this exercise, you'll be:

1. Fetching performance of mock campaigns from our API server
2. Evaluating the performances and suggesting new budgets for each campaign
3. Displaying the recommended budgets on some UI

Expectations

This take-home coding challenge should take approximately 4-6 hours.

Our aim is to give everyone a thorough evaluation in order to assess and compensate candidates fairly. With this in mind, we're also aiming to balance that goal with respect for a candidate's time so please let us know if it takes substantially more or less time and we'll do our best to adjust for the future.

Requirements

1. Submit a Github repo with instructions on how to run your solution.

Feel free to use external libraries and resources AS LONG AS you are not involving other people. Stack Overflow is acceptable. Feel free to use any language or framework of your choosing.

See the next page for more details.

Fetching Performance from the API

You'll be fetching data from the API server located at `http://api.shareably.net:3030` . To authenticate use the access token `SHAREABLY_SECRET_TOKEN` in either the `Authorization` header or in the query parameter `accessToken` .

Use the GET `/ad-insights` endpoint to fetch ad performance data. The parameters used for this endpoint are written below:

Parameter	Description	Example
date	The date to fetch ad data for. Valid dates range from **2019-01-25** to **2019-01-31** `REQUIRED`	2019-01-25
metrics	A comma separated list of metrics you want returned by the server. See below for a complete list `REQUIRED`	spend,impressions

Metrics

Metric	Description
spend	The total amount spent
revenue	The total dollar amount brought in by the ad
impressions	The total number of times the ad was shown to users
clicks	The total number of times a user click on the ad

Use the GET `/ad/AD_ID` endpoint to get the current ad budget for an ad.

Parameter	Description	Example
AD_ID	The ad id to fetch current ad budget for. `REQUIRED`	081944fe-aa73-6165-3f4c-3ab87a1539fe

Evaluating the performance of campaigns

Using the data from the API, create a solution that will generate a suggested value for the new budget of an ad based on its prior performance. This is an open ended question and has no right or wrong answer. Please code this portion in a way where you'll be able to explain your reasoning. This code can live client side or wherever else you deem fit. Feel free to use external libraries.

Displaying the Recommended Budget

Design a simple UI showcasing the computation done above. Display each ad with it's current budget and proposed budget along with any other information you deem relevant. You can showcase this in any visual medium you deem fit.