

Campanja Javascript Programming Assignment

Problem

Ture Sventon runs an online business selling cream puffs. Unfortunately business is mostly slow and a lot of cream puffs go to waste because of passing expiration dates. In an effort to sell more cream puffs Mr. Sventon starts spending some money on online marketing. He creates a list of campaigns containing keywords that he thinks will help people find his store and starts buying clicks.

But Ture Sventon lives in ignorance. He doesn't know how well the online marketing performs, so now he wants to monitor this. He found that the company he buys clicks from provides an API (see the API specification below) for this exact reason where you can extract information like impressions, clicks, cost and revenue.

And so he contacts You.

Brief

Ture has done some research into what metrics he needs to be able to watch and how they should be presented. In the attached wireframe he specifies how the application should look roughly. He has also defined a list of acceptance criteria for you to fulfill.

Acceptance criteria

- The metrics to track are
 - Cost
 - Clicks
 - Revenue
 - ROI (Revenue divided by Cost)
- There should be a chart displaying one or two of the metrics at a time.
- It should be possible to select arbitrary date ranges for the chart.
- You should be able to make sense of the data and see potential trends over up to a 18 months time period.
- There should be a list displaying all 4 metrics for the whole date range. I.e the sum of all clicks, the sum of all impressions, the sum of all costs, the ROI for the whole time period. The metrics list should be updated together with the chart.
- The application should be built using ReactJS.
- You may assume Ture is using an up-to-date browser of your choice.

Wireframe

See wireframe.png.

Boilerplate

You have been provided a small bare-bone React app built and served by Webpack. You are free to change/replace all of it but it should be good enough for you to spend your time on building the real app instead. The server also has an API for fetching the stats.

A `npm-shrinkwrap.json` file is also available. It could be a good idea to update it when changing the dependencies.

Starting the server

The server is a node.js server tested with version 6.9.2 of node.js.

Run ``npm install && npm start`` to start the server. With the server running, open <http://localhost:3000> in a browser - if everything works as it should you will see a page with the Campanja logo with some Javascript and CSS loaded.

API Specification

The server has a special endpoint at `/stats` which outputs statistics data in JSON format. The `/stats` endpoint responds to the following query string parameters:

startDate	Start point for date range to get data points for. Format: YYYY-MM-DD.
endDate	Inclusive ending date for the date range. Format: YYYY-MM-DD.

E.g. URL: `/stats?startDate=2015-09-01&endDate=2015-09-30`

Data is available for 20 months from **February 2014** throughout **September 2015**.