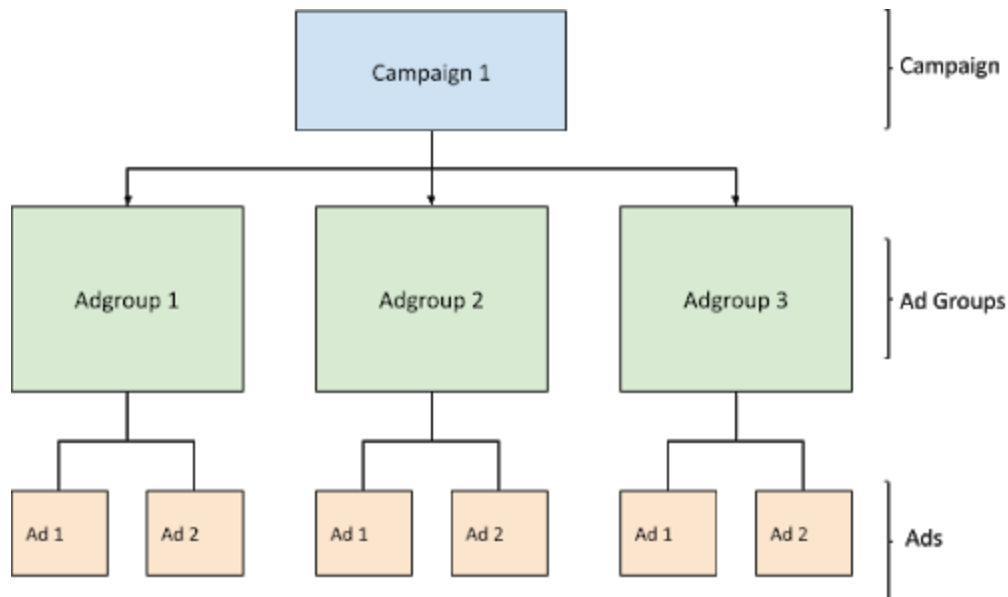


Content

Ad tech (also sometimes spelled as **adtech**) is an umbrella term that stands for advertising technology. Ad tech includes all kinds of tools and software platforms that advertisers utilize to deliver their ads to potential customers. Publishers use advertising technology platforms to automate their inventory monetization with ads. Ad tech helps businesses plan and execute marketing strategies, from three stages of media-buying and selling to performing analysis and optimizing their advertising efforts. [source of information: smartyads]



Here is a brief hierarchy for relationships in adtech systems:



One Campaign can have one or more Ad Groups. One Ad group can have one or more ads.

Problem Statement

Imagine yourself working in a XYZ company as a data scientist. The advertising team from your company have conducted multiple ads in the past and have recorded the revenue generated through the ad. This time the management team has decided to use the power of data science to estimate the revenue for their ads. For this work the management team has chosen you to lead as a data scientist.

Objective

Build a machine learning model that would help your company estimate the revenue that will get generated for different ads.

Evaluation Criteria

Submissions are evaluated using **Root Mean Squared Error (RMSE)** value.

How do we do it?

Once we release the data, anyone can download it, build a model, and make a submission. We give competitors a set of data (training data), with both the independent and dependent variables.

We also release another set of data (test dataset) with just the independent variables, and we hide the dependent variable that corresponds with this set. You submit the predicted values of the dependent variable for this set and we compare it against the actual values.

The predictions are evaluated based on the evaluation metric defined in the datathon.

About the data

In the given dataset - we have only 1 campaign; 4 Ad Groups and multiple ads.

Data Description

- date: the date on which the ad was made live
- campaign: campaign number
- adgroup: adgroup number
- ad: ad number
- impressions - Number of time the ad was shown
- clicks - Number of time the ad clicked shown
- cost - Amount spent to show ad
- conversions - Number of transactions received
- revenue: revenue generated from the ad

Acknowledgement

We would like to thank DeltaX for providing us this dataset.