## Metis Challenge 1

Hi Jet.com,

It was fantastic to chat and learn more about your marketing techniques at Jet.com. As proposed, we prepared a few next steps for us to work together.

As mentioned during our initial meeting, our team at Prestige Worldwide is utilizing data science to figure out the most effective turnstiles to place your ads to get the most impressions.

Continuing with your aggressive marketing budget at Jet.com, we believe that increasing the amount of impressions and customer acquisition from turnstile advertisements will greatly benefit Jet. Our data science team will utilize our dataset of MTA turnstile data. This dataset is available free of cost and will help us optimize our placement to maximize impressions.

Since we have access to placing the ads on the turnstiles, we would recommend placing unique coupon codes on each of the turnstiles, for example, (Station X has code "10OFFStationX"). This will help us understand conversions from each individual location to improve our advertisements overtime.

We look forward to having your input on the proposal and nailing down on the best ways we can work together. Our availability next week is open so we can schedule our next meeting.

Best,

MAGS Media

Things to do:
Introduction
Why us? Why is this important

What is our solution

Here is our analysis

**Problem:** Jet has made fantastic progress to capture customers for its ecommerce business. We want to optimize our analytics and analysis capabilities to optimize Jet's marketing campaigns in the Metropolitan Transportation Authority (MTA) subway system. We will solve this problem by finding the best stations to maximize impressions for Jet advertisements.

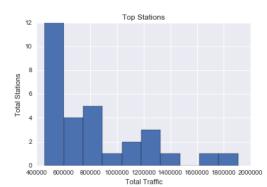
The MTA data was obtained from the NYC Data Portal and provides a rich dataset to view subway usage. Using this data, we can optimize Jet's marketing efforts to maximize customer acquisition.

### Results:

After our initial analysis of the top thirty subway stations, we have a great idea of where to place advertisements and the total number of impressions that we will expect. The data set that we investigated took place from September 10th to September 17th. The majority of the stations are located in Manhattan, but the full list is in the appendix. The stations with highest number of impressions were:

- 34th St Penn Station
- 42 St Grand Central Station
- 34th St Herald Square
- 23rd St
- 14th St Union Square

We then wanted to visualize the top stations by impressions:



With this information, we suggest placing advertisements that can include placement on turnstiles, subway walls, or above stairs, for example. The best method for effective "A/B test" campaigns (further described below) would be to place advertisements with distinct promotional codes throughout these stations.

Our clients in the past have seen great success in being able to track impression/user conversion rates from individual advertisement locations and campaigns. In the following image, we created a mock code that can be used at separate stations.

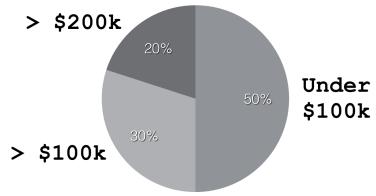


With the thirty stations that we would be doing advertisements, you can have thirty different codes to A/B test what works best for optimizing customer acquisition. Our recommendation would be to run two ads across 15 stations each, largely so that demographic data can be controlled for and processed for future marketing insights regarding ad placement around New York.

#### Additional Information and Value Add:

It is extremely beneficial to understand the demographic information of MTA riders. We believe that when we implement demographic information of riders into our analysis we can come up with better solutions for advertising for Jet. This will give us a better idea of which areas have higher disposable income and would be interested in using Jet.com's service.

For example, looking at the second busiest subway in our analysis, Grand Central, we discovered that more than half of the riders have incomes over \$100,000 a year.



Integrating more demographic information into our analysis, we can be more targeted with the advertisements and improve the effectiveness of static, impression based ads in the subway system. This allows marketing metrics to be readily available and useful, similar to digital advertising analytics.

# **Conclusion:**

Based on our analysis, we would recommend starting with the thirty most-traversed subway stations and begin to test promotional codes. In this way, we can continuously improve effectiveness, and focus on putting more emphasis on the stations that drive the most conversions. We look forward to working with you on this project and more in the future.

# Appendix:

	T
STATION	zip
34 ST-PENN STA	10001
GRD CNTRL-42 ST	10017
34 ST-HERALD SQ	10001
23 ST	10003
14 ST-UNION SQ	10003
86 ST	10028
TIMES SQ-42 ST	10036
FULTON ST	10038
42 ST-PORT AUTH	10036
59 ST	10022
59 ST COLUMBUS	10023
125 ST	10009
96 ST	10009
CANAL ST	10013
CHAMBERS ST	10007
47-50 STS ROCK	10020
14 ST	10003
FLUSHING-MAIN	11354
28 ST	10001
72 ST	10021
JKSN HT-ROOSVLT	11377
50 ST	10003
W 4 ST-WASH SQ	10012

WALL ST	10005
42 ST-BRYANT PK	10036
ATL AV-BARCLAY	11217
LEXINGTON AV/53	10010
145 ST	10002
JAY ST-METROTEC	11201
77 ST	10075