

**DTU**



62444 Data visualization and analysis

# Presentation - Group 12

January 21, 2024

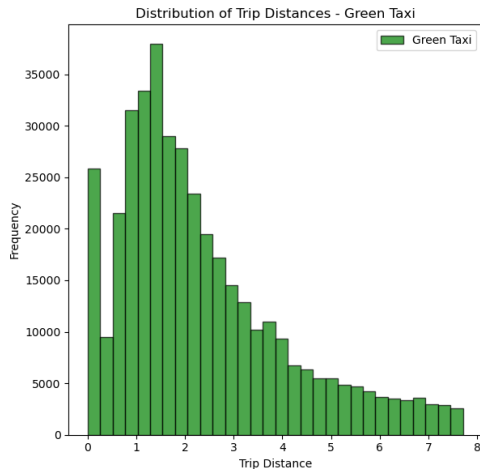
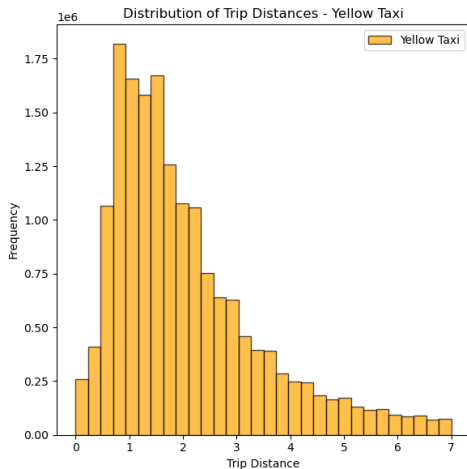
# Overview

- Taxi project
- NASA project

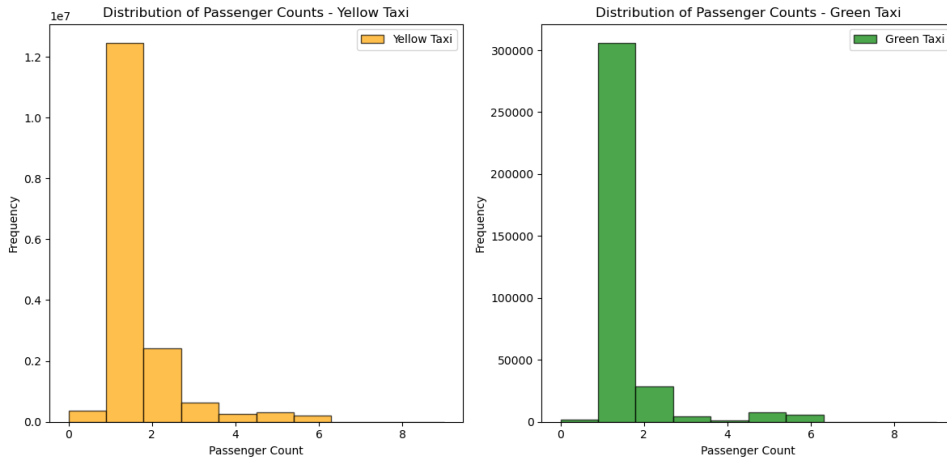
## Project 1

# Analysis and Forecasting of NYC Taxi Rides

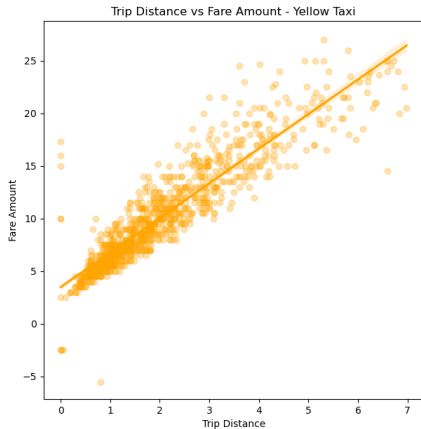
# Distribution of trip distance



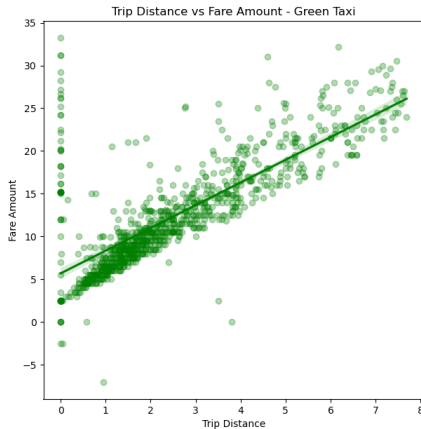
# Distribution of passenger count



# Distribution of passenger count

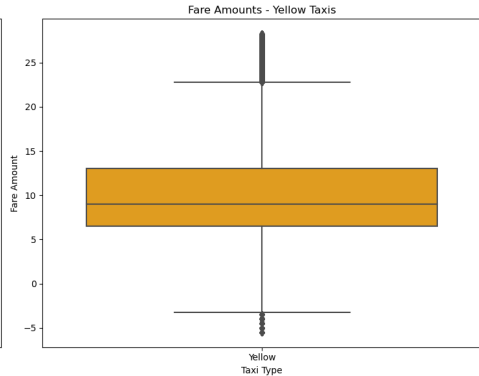
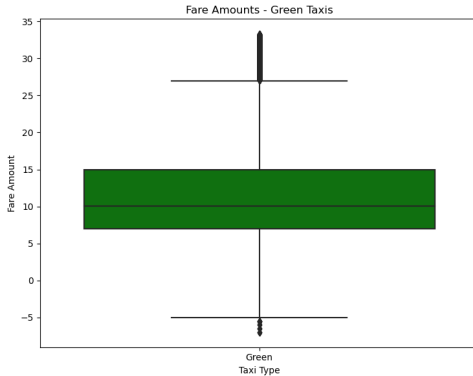


# Distribution of passenger count

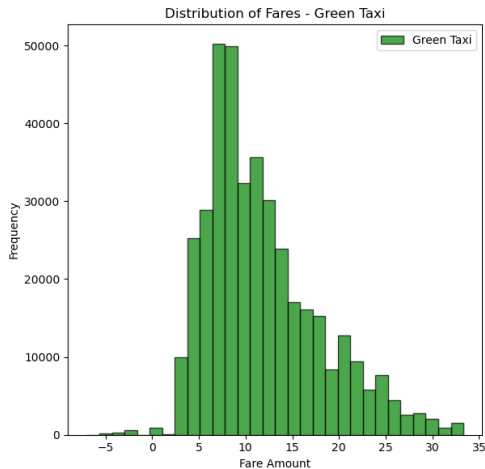
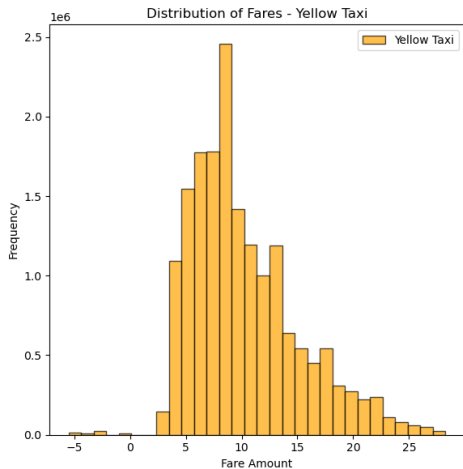




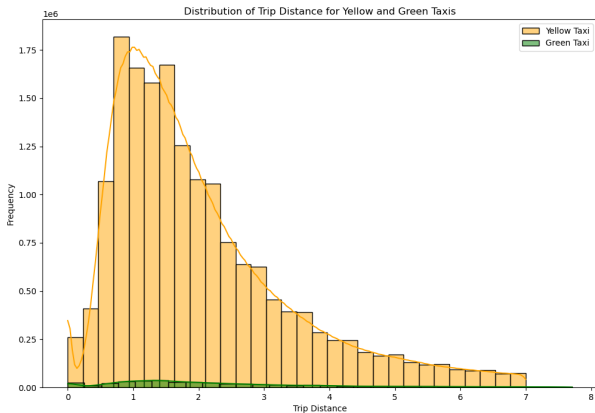
# Distribution of passenger count



# Distribution of fares



# Distribution of passenger count



## Task 3

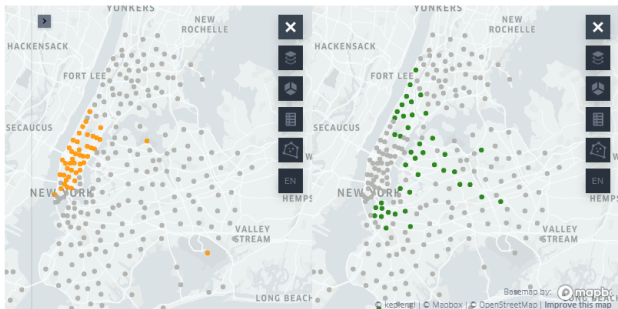
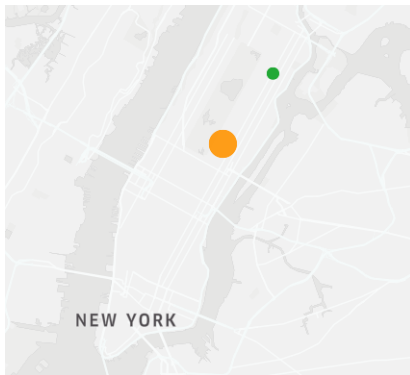


Figure: Most used Pickup locations for yellow and green taxis

# Task 3



**Figure:** The most used Pickup locations for yellow and green taxis

## Task 4

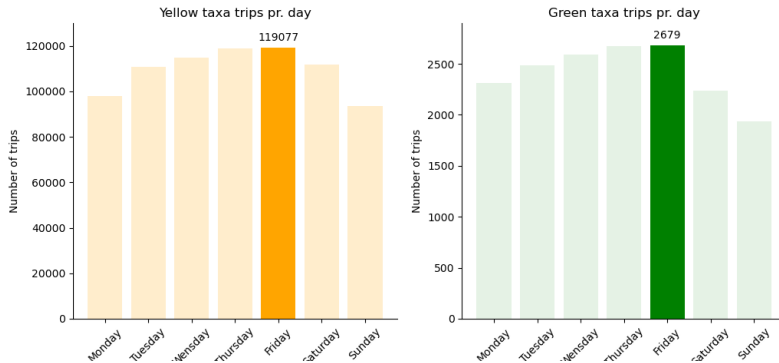
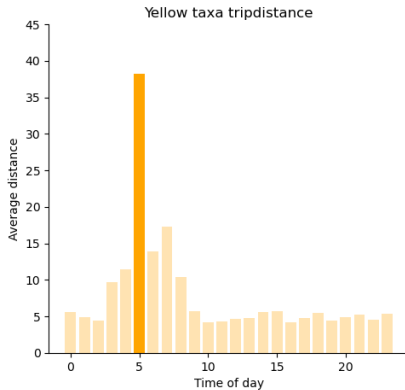
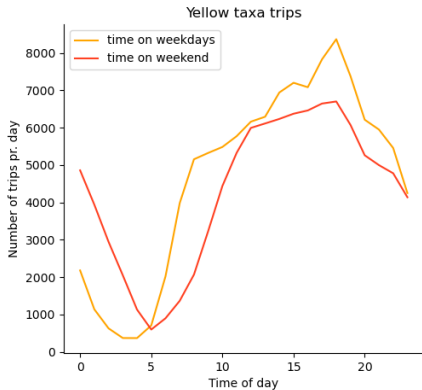


Figure: Average number of daily trips on day of week

# Task 4

## Yellow taxi trips and distance



# Task 4

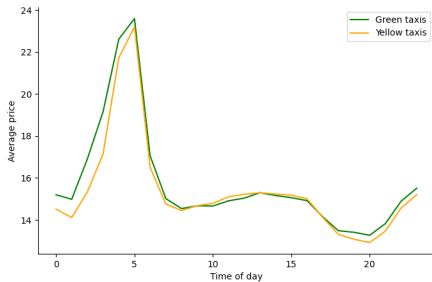


Figure: Average number of daily trips on day of week



# Task 5

Performance of forecast models:

	model 1	model 2	model 3
rmse	12175	11713	6068
months:	1-3	1-4	1-5

## Task 5

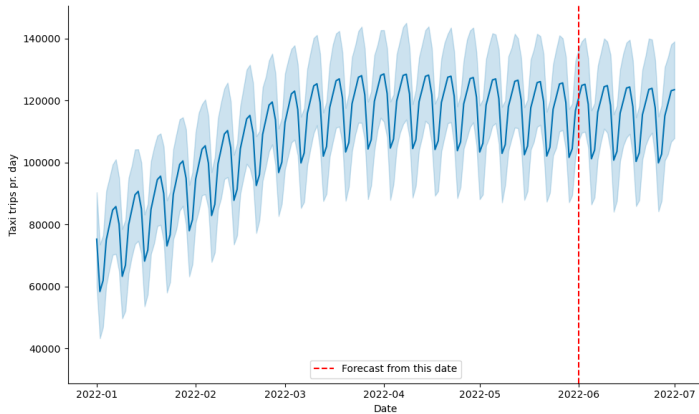


Figure: Forecast for Yellow taxis

## Project 2

# NASA data collection and visualization

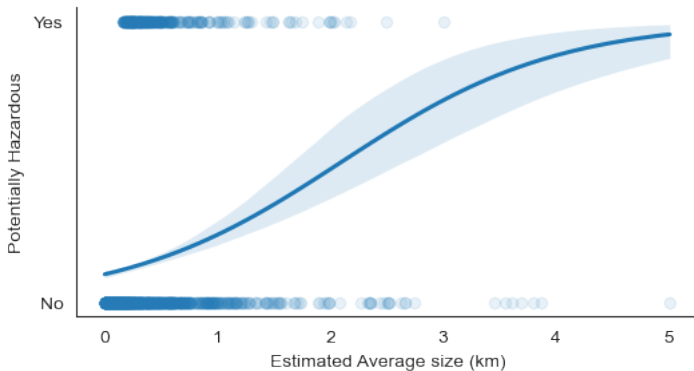
## Data statistics

**2687** near-earth  
objects (NEOs) was  
observed in 2022

mean	mode	std	min	Q1	median	Q3	max
267	25.9	412	2	39	123	323	5006

**Table:** Statistics for the average size of NEO's in meters

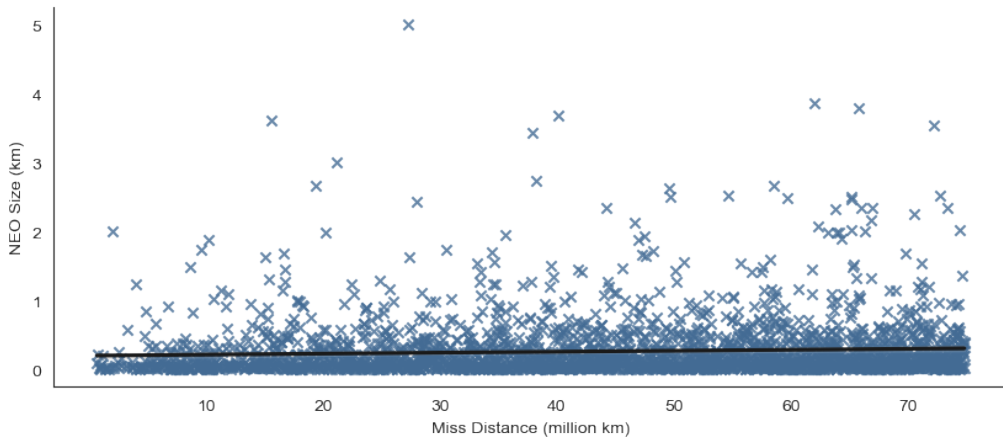
# NEO size vs. potential hazard correlation



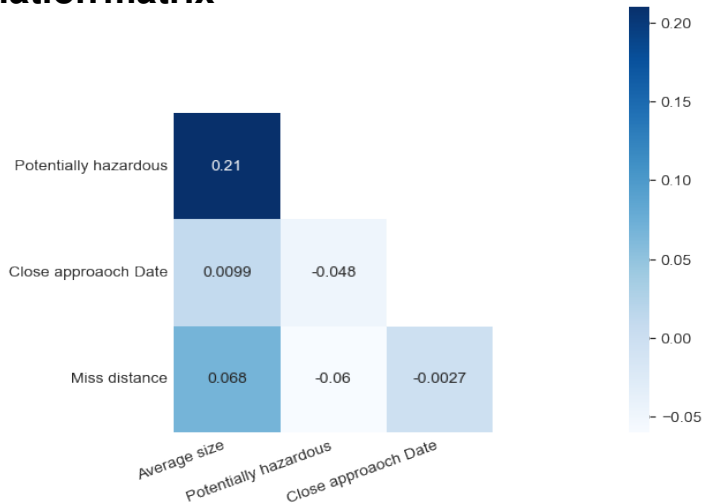
0.21

Weak correlation  
between size of of  
NEOs and if they are  
potentially hazardous.

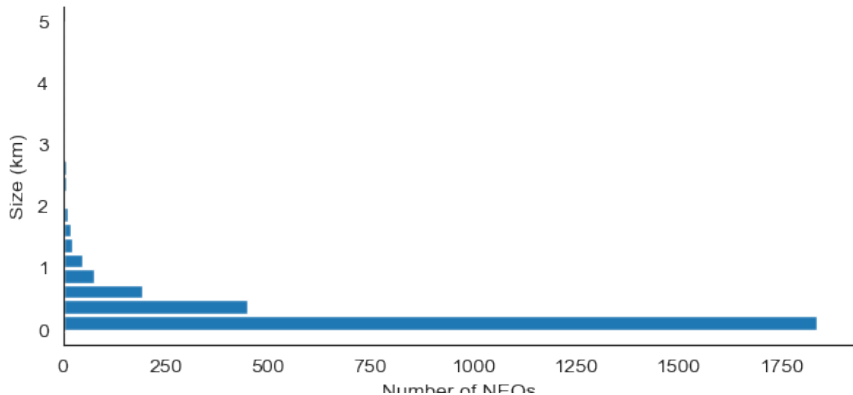
# NEO size vs. miss distance correlation



# Correlation matrix

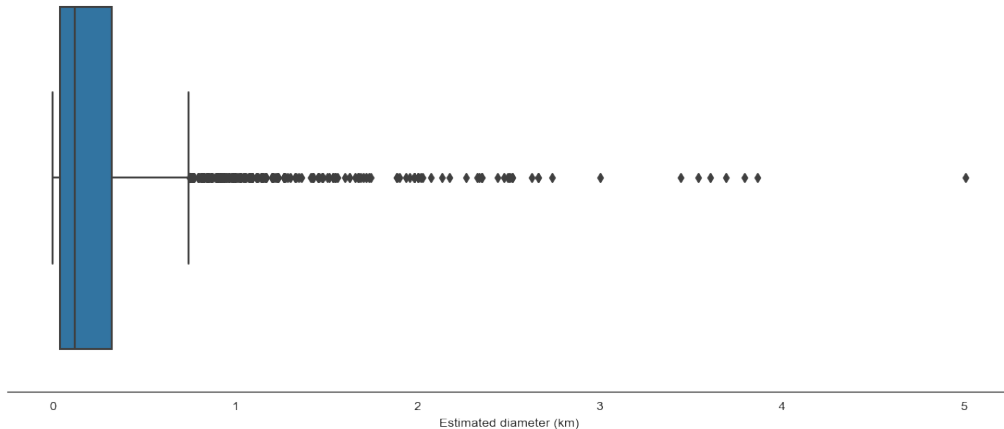


# Distribution of NEO sizes





# Box plot of NEO sizes



# Average NEO size per week

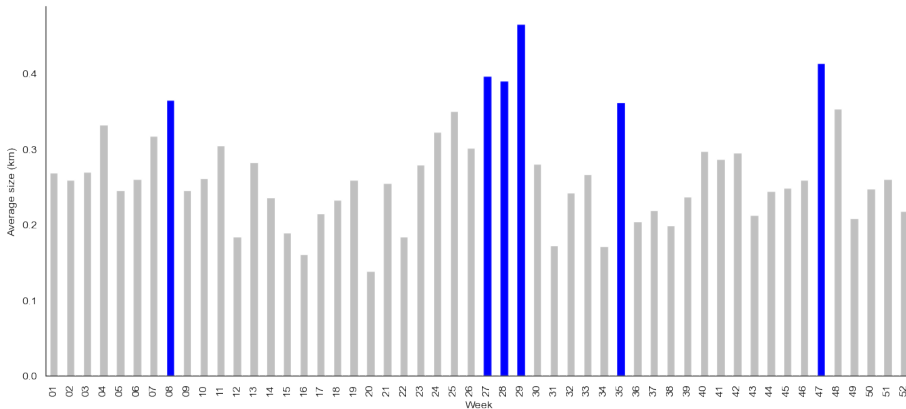
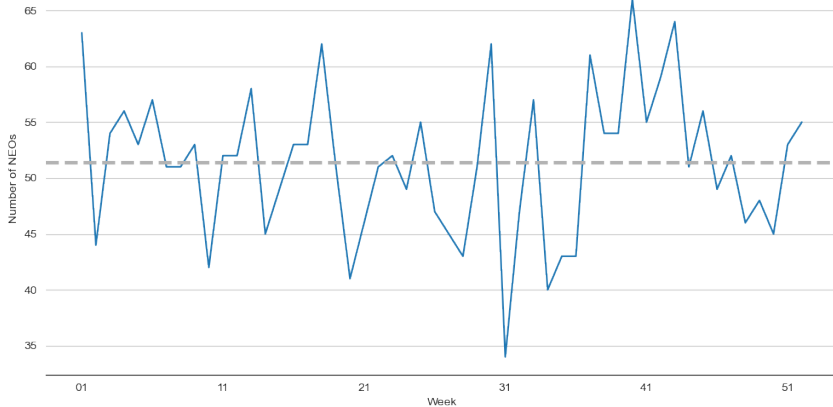
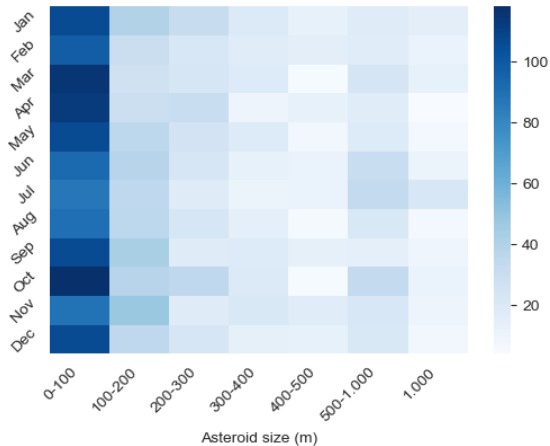


Figure: Average NEO size in the 90th quantile

# NEOs per week



# Heat map of NEOs per month



## Proportion of Hazardous vs Non-Hazardous NEOs

