

Purpose

This is the home page for this competition. This competition is for evaluating candidates purpose only.

Detail

- There are three main tasks for this challenge, and everyone has 48hrs to finish the challenge.
- Candidates are not required to finish all three tasks if candidate is not familiar with Shiny development, but we are happy to see the report developed in other tools.
- Candidate are free to use either R or Python to tackle the problems.
- Feel free to share any visualizations and conclusions with us.
- Feel free to describe your challenges and thoughts.
- The ultimate output for first two problems should be a Notebook, either R or Jupyter Notebook.
- The submission for the last problem should be a public available link hosting the Shiny Application.

Task 1 Property Lease-Up Summary

- How many properties are **delivered** since April 2008 of these **two markets**?
- What is the average lease-up time for these two markets?
- Is there any interesting findings you would like to share with us?

Explanation

- What does “delivered” mean?
 - For a property which is considered as delivered, its **first recorded monthly Property Status** has to be either LU (lease up) or UC/LU (Under construction/Lease up).
- What is lease-up time for a property?
 - Lease-up time is defined: the number of months since the property delivered to market to the first month when the property reaches 90% occupancy.

Task 2 Migration Exploration

- Which county pair do you see the most interactions (in terms of number of exemptions)?
- Which county do you see the most in-migration (in terms of number of exemptions)?
- Which county do you see the most out-migration (in terms of number of exemptions)?
- Could you point out what the net migration (difference between in-migration and out-migration) for New York metropolitan area is (you may need to utilize other data sets to tackle this problem)?
- What are the challenges while working on this data? How did you realize it and how did you fix it?
- Are there some interesting findings you'd like to share with us?

Task 3 Deliverable Dashboard (Prefer to be a Shiny application)

- Please use one of above two datasets to design a dashboard
- Show tables, plots or maps as you desire.
- Host the application in a public available server and share the link with us.