DC properties dataset:

This dataset contains information about 158,957 properties in Washington DC, including recent sale prices. The dataset contains only one .csv file which has all of the information available. There are 48 columns, most of which are self-explanatory. You are not required to analyze all columns of this dataset, it is fine to select some interesting questions and investigate only the relevant columns.

The description of each column is as below:
- BATHRM: Number of full bathrooms
- HF_BATHRM: Number of half bathrooms (no bathtub or shower)
- HEAT: Heating type
- AC: Cooling
- NUM_UNITS: Number of units
- ROOMS: Number of rooms
- BEDRM: Number of bedrooms
- AYB: The earliest time the main portion of the building was built
- YR_RMDL: Year structure was remodeled
- EYB: The year an improvement was built more recent than actual year built
- STORIES: Number of stories in primary dwelling
- SALEDATE: Date of most recent sale
- PRICE: Price of most recent sale
- QUALIFIED: Qualified
- SALE_NUM: Sale number
- GBA: Gross building area in square feet
- BLDG_NUM: Building number on property
- STYLE: Style
- STRUCT: Structure
- GRADE: Grade
- CNDTN: Condition
- EXTWALL: Exterior wall
- ROOF: Roof type
- INTWALL: Interior wall
- KITCHENS: Number of kitchens
- FIREPLACES: Number of fireplaces
- USECODE: Property use code
- LANDAREA: Land area of property in square feet
- GIS_LAST_MOD_DTTM: Last modified date
- SOURCE: Raw data source
- CMPLX_NUM: Complex number
- LIVING_GBA: Gross building area in square feet
- FULLADDRESS: Full street address
- CITY: City
- STATE: State
- ZIPCODE: Zip code
- NATIONALGRID: Address location national grid coordinate spatial address
- LATITUDE: Latitude
- LONGITUDE: Longitude
- ASSESSMENT_NBHD: Neighborhood ID
- ASSESSMENT_SUBNBHD: Subneighborhood ID

- CENSUS_TRACT: Census tract
- CENSUS_BLOCK: Census block
- WARD: Ward (District is divided into eight wards, each with approximately 75,000 residents)
- SQUARE: Square (from SSL)
- X: longitude
- Y: latitude
- QUADRANT: City quadrant (NE,SE,SW,NW)

Some ideas for analysis:

Below are some ideas that could be interesting to investigate. It is not required for you to investigate them, rather it could be a starting point if you cannot think of your own ideas. Some of these ideas in the list are simple and others may be complicated.

- Do older homes have fewer bathrooms per square foot?
- Do newer homes tend to be smaller or larger than older homes?
- How does the age of the home affect its selling price?
- How did the sale price of homes change over time?
- What are some properties of homes that affect sale prices (e.g., heating/cooling/exterior/roof types)?
- How does the neighborhood of the home affect its sale price?

Note that it's always important to consider potential confounding factors when making performing your analysis. For example, the sale prices of homes may have changed over time because homes are smaller and therefore sell for a lower price.