Exercise: Cleaning NYC Property Sales

This lesson will test the user on data cleaning.

WE'LL COVER THE FOLLOWING

NYC Property Sales

In this lesson, you are going to clean the NYC Property Sales Dataset. This dataset is a record of every building or building unit (apartment, etc.) sold in the New York City property market over a 12-month period.

In the below exercises, you will be writing functions for every task. The

functions will receive a dataframe `df` as an input argument. Your task will be to perform the required operations and return the dataframe.

1. Change values

In the `BOROUGH` column, the values range from 1 to 5. Change these according to the following

1 --> `Manhattan`

2 --> `Bronx`

3 --> `Brooklyn`

4 --> `Queens`

5 --> `Staten Island`

Input

A dataframe

Output

Dataframe with `BOROUGH` values changed.

Exercise

```
def change_values(df):
    ## Write code here

    pass
```

2. Missing values

Remove rows that have missing values in `SALE PRICE` column.

Input

A dataframe

Output

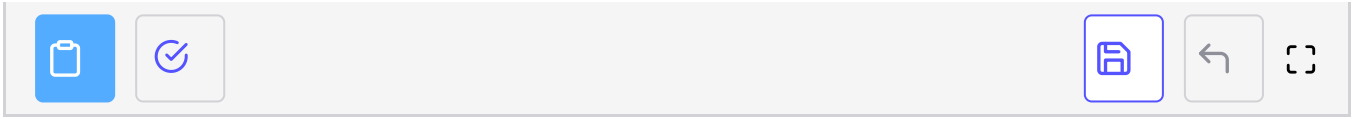
Dataframe with rows that have missing values in `SALE PRICE` column

Dataframe with rows that have missing values in `SALE PRICE` column removed.

Exercise

```
def remove_missing(df):
  ## Write code here

  pass
```



3. Duplicate values

Remove rows that have duplicates in each column.

Input

A dataframe

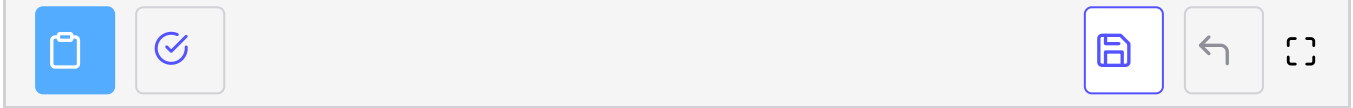
Output

Dataframe with duplicated rows removed.

Exercise

```
def remove_duplicates(df):
  ## Write code here


  pass
```



4. Outliers

Remove outliers from the dataframe by checking outliers using inter-quartile ranges in the following columns:

- `RESIDENTIAL UNITS`
- `COMMERCIAL UNITS`
- `TOTAL UNITS`
- `LAND SQUARE FEET`

- `LAND SQUARE FEET`
- `GROSS SQUARE FEET`
- `YEAR BUILT`

However, the quartile range should be between 0.10 and 0.90.

Input

A dataframe

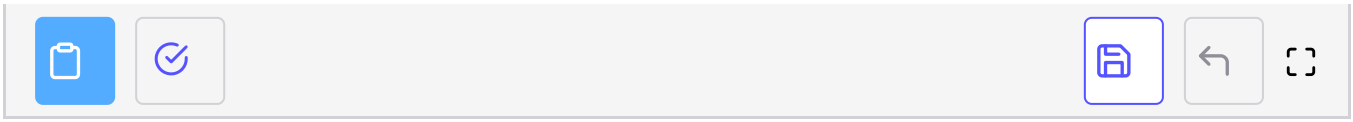
Output

Dataframe with Outliers removed.

Exercise

```
def remove_outliers(df):
    ## Write code here

    pass
```



In the next lesson, we will review the solutions to these exercises.