```
In [2]:
          import pandas as pd
          import numpy as np
          import seaborn as sns
 In [7]:
           df=pd.read_csv('C:/Users/ambalkt/Downloads/Power BI Practice/Projects/Sales/Car_Sales.csv', sep=",", encoding='Latin-1')
          df.head(5)
            ORDERNUMBER QUANTITYORDERED PRICEEACH ORDERLINENUMBER SALES ORDERDATE STATUS QTR_ID MONTH_ID YEAR_ID ... ADDRESSLINE1 ADDRESSLINE2
                                                                                                                                                                     CI
 Out[7]:
                                                                                      2/24/2003
                                                                                                                                     897 Long Airport
          0
                                          30
                                                   95.70
                                                                        2 2871.00
                                                                                               Shipped
                                                                                                                            2003
                                                                                                                                                                     Ν
                     10107
                                                                                                            1
                                                                                                                                                            NaN
                                                                                          0:00
                                                                                                                                            Avenue
                                                                                                                                          59 rue de
         1
                                                                                                            2
                                                                                                                            2003 ...
                     10121
                                          34
                                                   81.35
                                                                        5 2765.90
                                                                                  5/7/2003 0:00 Shipped
                                                                                                                      5
                                                                                                                                                            NaN
                                                                                                                                                                    Rei
                                                                                                                                           l'Abbaye
                                                                                                                                          27 rue du
          2
                     10134
                                          41
                                                   94.74
                                                                        2 3884.34 7/1/2003 0:00 Shipped
                                                                                                            3
                                                                                                                      7
                                                                                                                            2003 ...
                                                                                                                                       Colonel Pierre
                                                                                                                                                            NaN
                                                                                                                                                                     Pί
                                                                                                                                              Avia
                                                                                      8/25/2003
                                                                                                                                       78934 Hillside
                                                                        6 3746.70
                                                                                               Shipped
                                                                                                                            2003 ...
          3
                     10145
                                          45
                                                   83.26
                                                                                                            3
                                                                                                                      8
                                                                                                                                                            NaN
                                                                                                                                                                 Pasade
                                                                                          0:00
                                                                                                                                               Dr.
                                                                                     10/10/2003
          4
                     10159
                                          49
                                                  100.00
                                                                        14 5205.27
                                                                                               Shipped
                                                                                                            4
                                                                                                                     10
                                                                                                                                      7734 Strong St.
                                                                                                                            2003
                                                                                                                                                                  Francis
                                                                                          0:00
         5 rows × 25 columns
 In [8]:
          df.isnull().sum()
          ORDERNUMBER
                                  0
 Out[8]:
          QUANTITYORDERED
                                  0
          PRICEEACH
                                  0
          ORDERLINENUMBER
                                  0
                                  0
          SALES
                                  0
          ORDERDATE
          STATUS
                                  0
          QTR_ID
                                  0
                                  0
          MONTH_ID
                                  0
          YEAR_ID
                                  0
         PRODUCTLINE
         MSRP
                                  0
                                  0
         PRODUCTCODE
                                  0
          CUSTOMERNAME
                                  0
         PHONE
                                  0
         ADDRESSLINE1
         ADDRESSLINE2
                               2521
         CITY
                                  0
         STATE
                               1486
         POSTALCODE
                                 76
          COUNTRY
                                  0
          TERRITORY
                               1074
          CONTACTLASTNAME
                                  0
                                  0
          CONTACTFIRSTNAME
                                  0
         DEALSIZE
          dtype: int64
 In [9]:
          mapping = (df.query('POSTALCODE != "NaN"')
                         .drop_duplicates('CITY')
                         .set_index('CITY')
                         .POSTALCODE)
          mapping
          CITY
Out[9]:
         NYC
                             10022
          Reims
                             51100
          Paris
                             75508
          Pasadena
                             90003
          San Francisco
                               NaN
          0slo
                            N 0106
                             24100
          Bergamo
          Glen Waverly
                              3150
          Munich
                             80686
          Charleroi
                           B-6000
          Name: POSTALCODE, Length: 73, dtype: object
 In [ ]:
          df['POSTALCODE'] = df['CITY'].map(mapping).fillna('NaN')
          df
In [27]:
           df['POSTALCODE'][df.CITY == "San Francisco"] = 94016
          df['POSTALCODE'].head(5)
          C:\Users\ambalkt\AppData\Local\Temp\1/ipykernel_15148/1981405433.py:1: SettingWithCopyWarning:
          A value is trying to be set on a copy of a slice from a DataFrame
          See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_guide/indexing.html#returning-a-view-versus-a-copy
           df['POSTALCODE'][df.CITY == "San Francisco"] = 94016
               10022
Out[27]:
         1
               51100
         2
               75508
         3
               90003
          4
               94016
          Name: POSTALCODE, dtype: object
In [26]:
          df['POSTALCODE'].head(5)
                10022
Out[26]:
         1
                51100
                75508
          2
          3
                90003
          4
               400028
          Name: POSTALCODE, dtype: object
 In [ ]:
```