Day 12 | Missing Value - imputation

Import Libraries

```
In [1]:  import pandas as pd
         import numpy as np
         import matplotlib.pyplot as plt
```

Import Data

```
In [3]:  df = pd.read_csv('train.csv',usecols=['GarageQual','FireplaceQu','SalePrice'])
```

```
In [4]:  df.head()
```

Out[4]:

	FireplaceQu	GarageQual	SalePrice
0	NaN	TA	208500
1	TA	TA	181500
2	TA	TA	223500
3	Gd	TA	140000
4	TA	TA	250000

Check missing (null) value
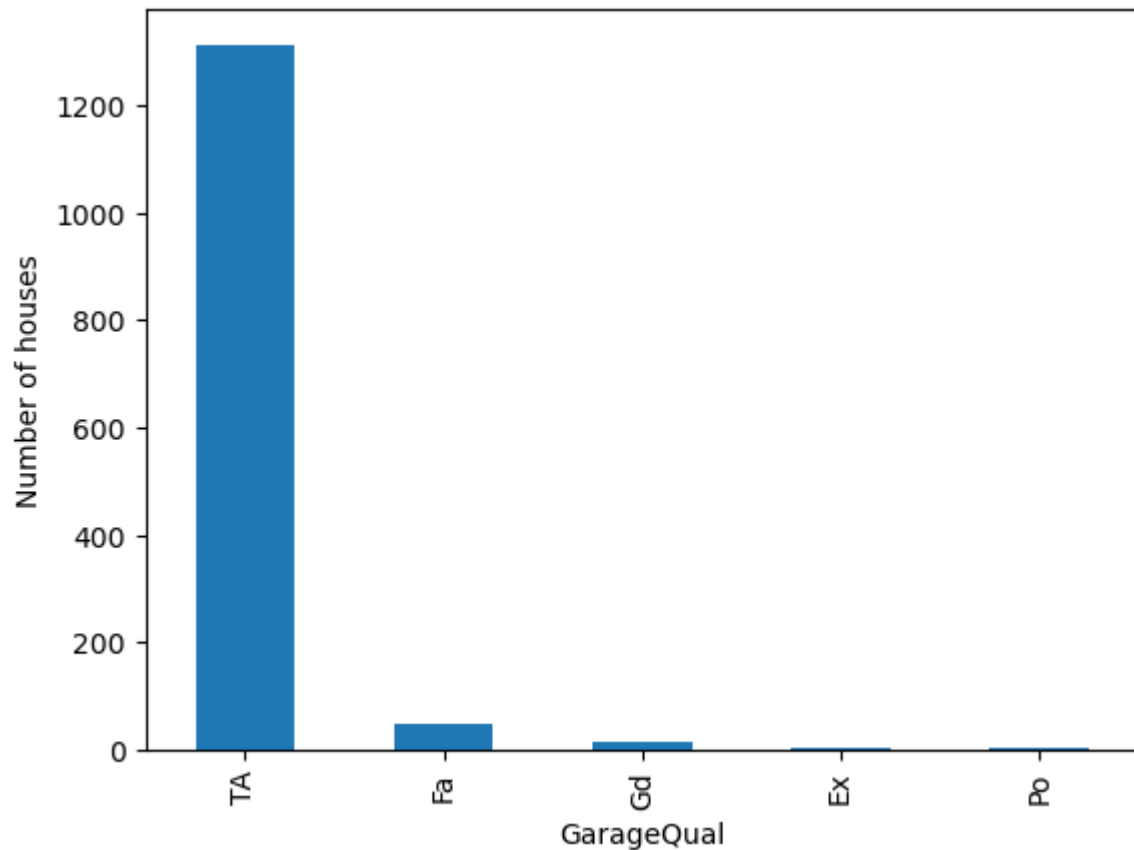
```
In [5]:  df.isnull().mean()*100
```

```
Out[5]:  FireplaceQu    47.260274
         GarageQual      5.547945
         SalePrice       0.000000
         dtype: float64
```

Plot bar | Garage

```
In [6]:  df['GarageQual'].value_counts().sort_values(ascending=False).plot.bar()
         plt.xlabel('GarageQual')
         plt.ylabel('Number of houses')
```
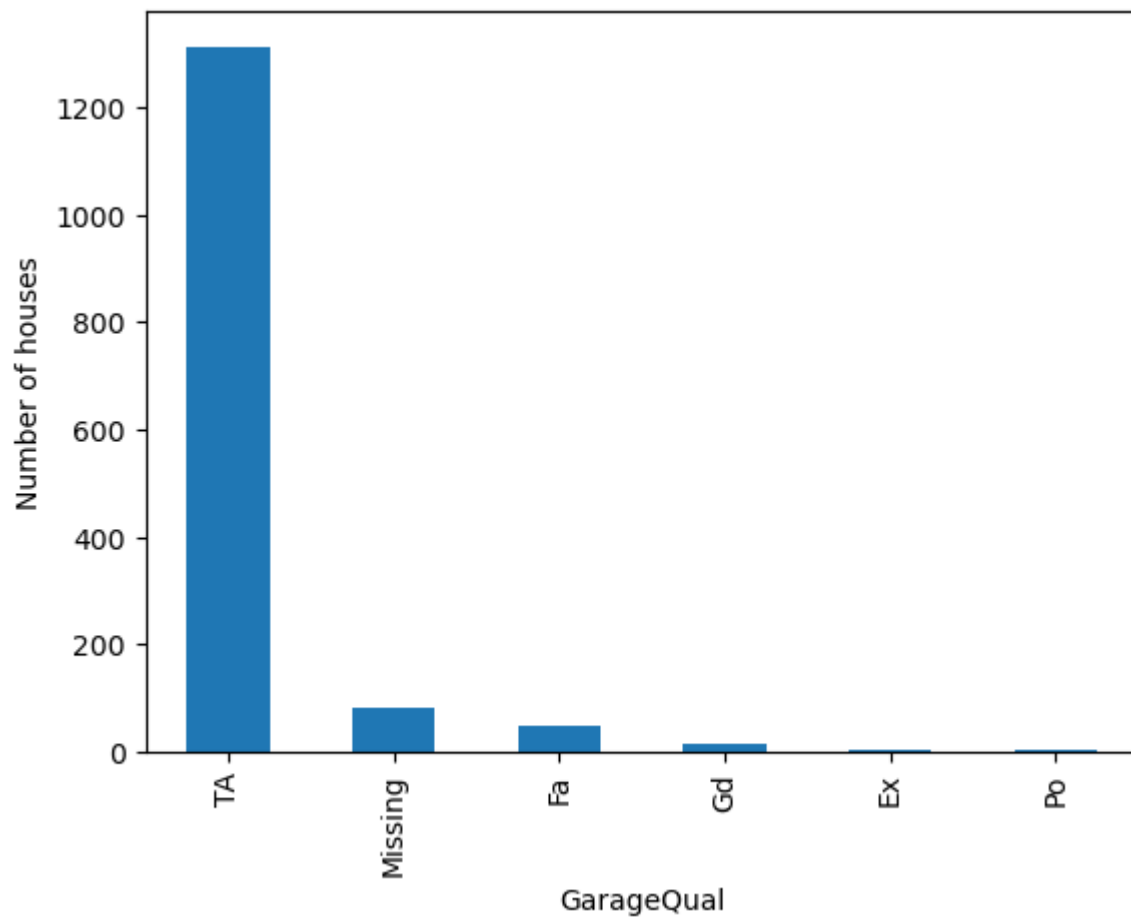
Out[6]: Text(0, 0.5, 'Number of houses')

Replace Missing Value in "Missing" Word

```
In [11]:  df['GarageQual'].fillna('Missing', inplace=True)
```

Category Missing Values

```
In [12]: df['GarageQual'].value_counts().sort_values(ascending=False).plot.bar()
         plt.xlabel('GarageQual')
         plt.ylabel('Number of houses')
```

Out[12]: Text(0, 0.5, 'Number of houses')


```
In [ ]:
```