

## Read the dataset

```
In [1]: import pandas as pd
data=pd.read_csv("Downloads//dataset - netflix1.csv")
data.head()
```

Out[1]:

|   | show_id |         | type | title                            | director        | country       | date_added | release_year | rating | duration |    |
|---|---------|---------|------|----------------------------------|-----------------|---------------|------------|--------------|--------|----------|----|
| 0 | s1      | Movie   |      | Dick Johnson Is Dead             | Kirsten Johnson | United States | 9/25/2021  | 2020         | PG-13  | 90 min   | Dr |
| 1 | s3      | TV Show |      | Ganglands                        | Julien Leclercq | France        | 9/24/2021  | 2021         | TV-MA  | 1 Season | T  |
| 2 | s6      | TV Show |      | Midnight Mass                    | Mike Flanagan   | United States | 9/24/2021  | 2021         | TV-MA  | 1 Season | 1  |
| 3 | s14     | Movie   |      | Confessions of an Invisible Girl | Bruno Garotti   | Brazil        | 9/22/2021  | 2021         | TV-PG  | 91 min   | Fa |
| 4 | s8      | Movie   |      | Sankofa                          | Haile Gerima    | United States | 9/24/2021  | 1993         | TV-MA  | 125 min  |    |



## Exploratory Data Analysis

```
In [2]: data.isnull().sum()
```

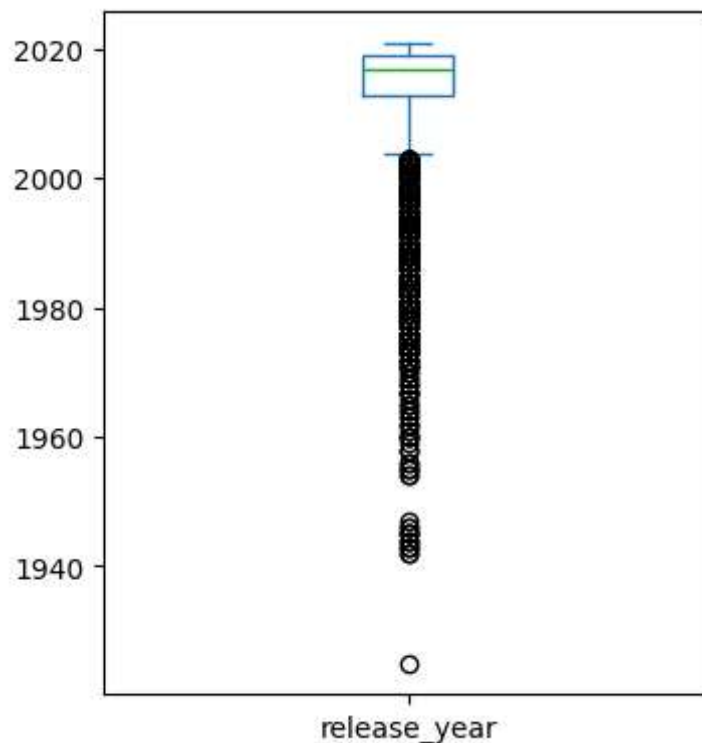
```
Out[2]: show_id      0
type            0
title           0
director        0
country         0
date_added      0
release_year    0
rating          0
duration        0
listed_in       0
dtype: int64
```

```
In [3]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 8790 entries, 0 to 8789
Data columns (total 10 columns):
#   Column          Non-Null Count  Dtype
---  -
0   show_id         8790 non-null   object
1   type            8790 non-null   object
2   title           8790 non-null   object
3   director        8790 non-null   object
4   country         8790 non-null   object
5   date_added      8790 non-null   object
6   release_year    8790 non-null   int64
7   rating          8790 non-null   object
8   duration        8790 non-null   object
9   listed_in       8790 non-null   object
dtypes: int64(1), object(9)
memory usage: 686.8+ KB
```

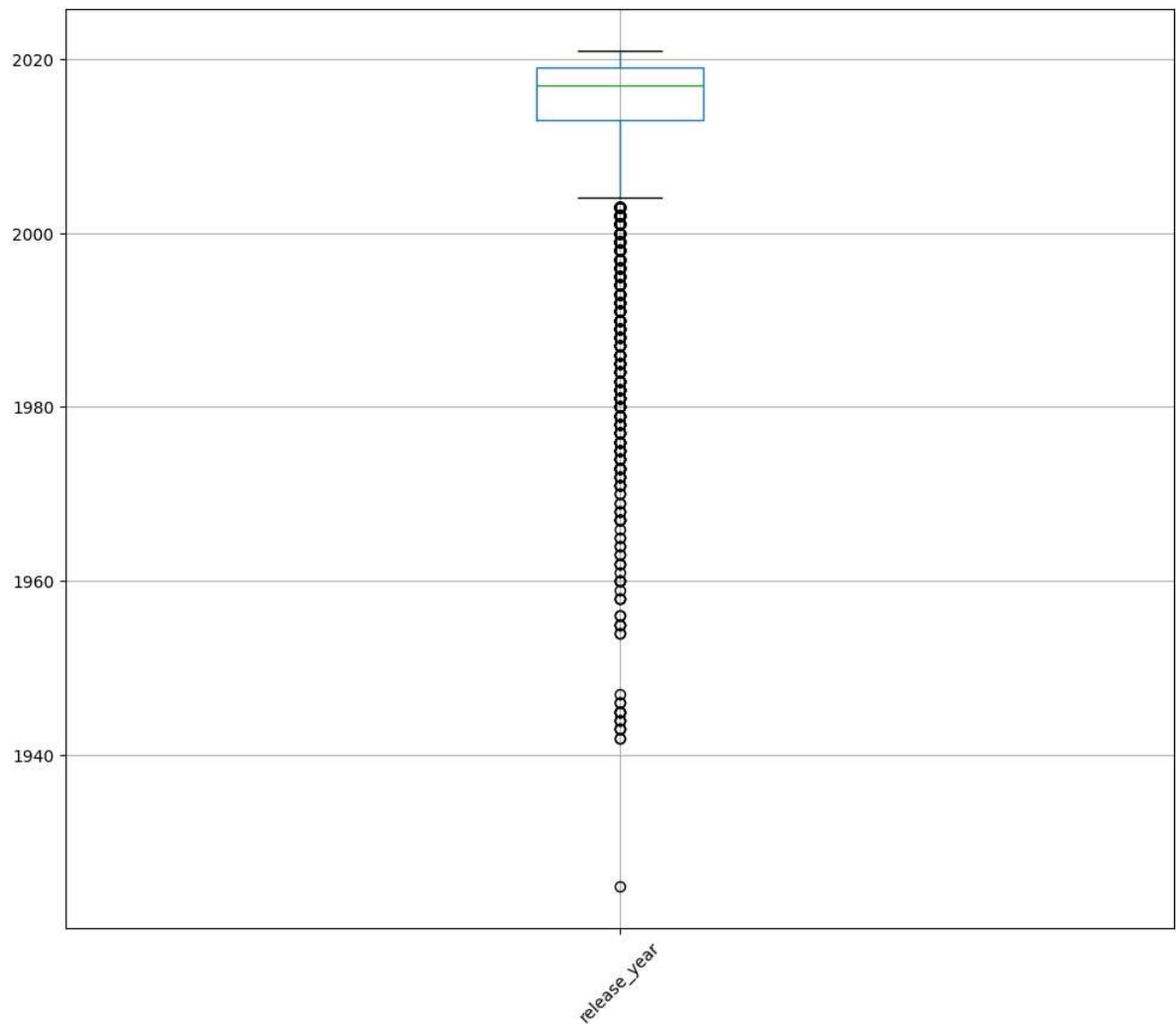
## Removing outliers

```
In [4]: import matplotlib.pyplot as plt
data.plot(kind = "box" , subplots = True , figsize = (18,15) , layout = (3,4))
plt.show()
```



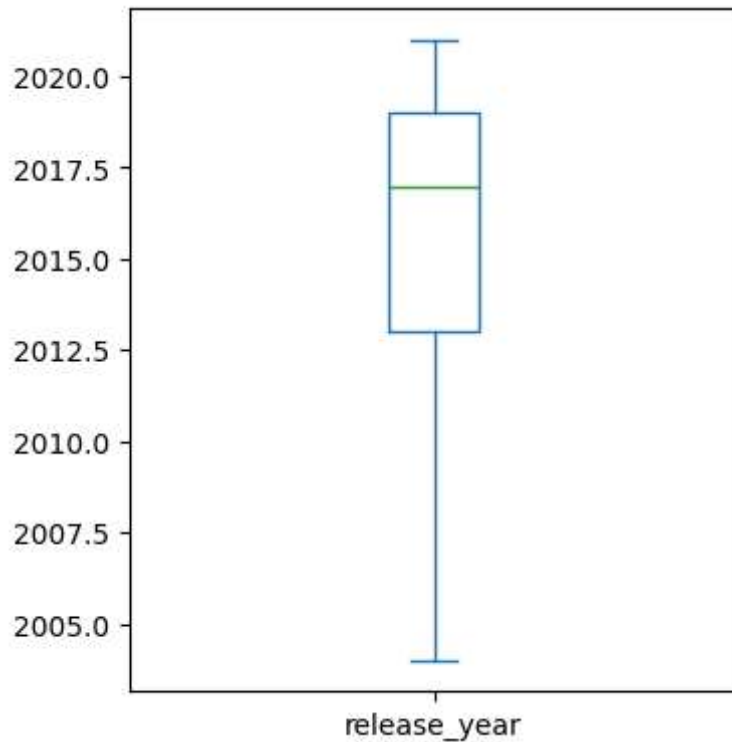
```
In [5]: plt.figure(figsize=(12,10))
data.boxplot(rot=45)
```

Out[5]: <Axes: >



```
In [6]: import numpy as np
def outlier_limits(col):
    Q3,Q1=np.nanpercentile(col,[75,25])
    IQR=Q3-Q1
    UL=Q3+1.5*IQR
    LL=Q1-1.5*IQR
    return UL, LL
for column in data.columns:
    if data[column].dtype != 'object':
        UL, LL = outlier_limits(data[column])
        data[column] = np.where((data[column] > UL) ,UL , np.where((data[column]
```

```
In [7]: data.plot(kind = "box" , subplots = True , figsize = (18,15) , layout = (3,4))
plt.show()
```



```
In [8]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 8790 entries, 0 to 8789
Data columns (total 10 columns):
#   Column          Non-Null Count  Dtype  
---  -
0   show_id         8790 non-null   object 
1   type            8790 non-null   object 
2   title           8790 non-null   object 
3   director        8790 non-null   object 
4   country         8790 non-null   object 
5   date_added      8790 non-null   object 
6   release_year    8790 non-null   float64
7   rating          8790 non-null   object 
8   duration        8790 non-null   object 
9   listed_in       8790 non-null   object 
dtypes: float64(1), object(9)
memory usage: 686.8+ KB
```