```
import pandas as pd
from pandas import read_csv
import numpy as np
import matplotlib.pyplot as plt
```

```
from google.colab import drive
drive.mount("/content/drive")
```

```
Mounted at /content/drive
```

```
data=read_csv("/content/drive/My Drive/dataset/info_perjalanan.csv")
print(data)
```

```
            tgl_waktu  jarak (km)  durasi (menit)  harga  driverrating  \
0    1/1/2016 21:17         5.1              18  22000           4.8
1     1/2/2016 1:37         5.0              15  20000           4.7
2    1/2/2016 20:38         4.8              17  19200           4.7
3    1/6/2016 17:19         4.7              16  18800           5.0
4    1/7/2016 13:33         7.0              21  28000           4.6
5    1/10/2016 8:25         0.8               3   3200           5.0
6   1/10/2016 12:44        16.5              48  66000           4.3
7   1/10/2016 19:32         7.5              23  30000           4.9
8    1/11/2016 9:21         6.2              20  24800           4.8
9   1/11/2016 12:03         6.4              24  25600           4.7
10  1/12/2016 15:28         1.7               6   6800           5.0
11  1/12/2016 15:54         1.6               5   6400           5.0
12  1/13/2016 14:07         1.9               8   7600           4.7
13  1/14/2016 17:05        10.0              30  40000           4.9
14   1/15/2016 1:01         2.9              10  11600           4.6
15  1/15/2016 12:03         2.3               8   9200           4.0
16  1/15/2016 13:44         7.6              28  30400           4.7
17  1/20/2016 11:11         4.7              17  18800           4.8
18  1/20/2016 12:19        15.1              45  60400           4.3
19  1/20/2016 14:19        12.1              36  48400           5.0
20  1/21/2016 14:29        11.9              33  47600           4.7
21  1/26/2016 16:24         4.2              12  16800           4.9
22  1/26/2016 17:22         2.7              10  10800           4.6
23  1/26/2016 17:29         1.7               5   6800           5.0

    cust_rating
0           4.0
1           5.0
2           4.8
3           4.6
4           5.0
5           4.8
6           4.6
7           4.0
8           4.8
9           5.0
10          4.9
11          4.0
12          4.6
13          4.8
14          5.0
15          4.3
16          4.3
17          4.0
18          4.9
19          4.6
20          4.9
21          5.0
22          4.8
23          4.3
```

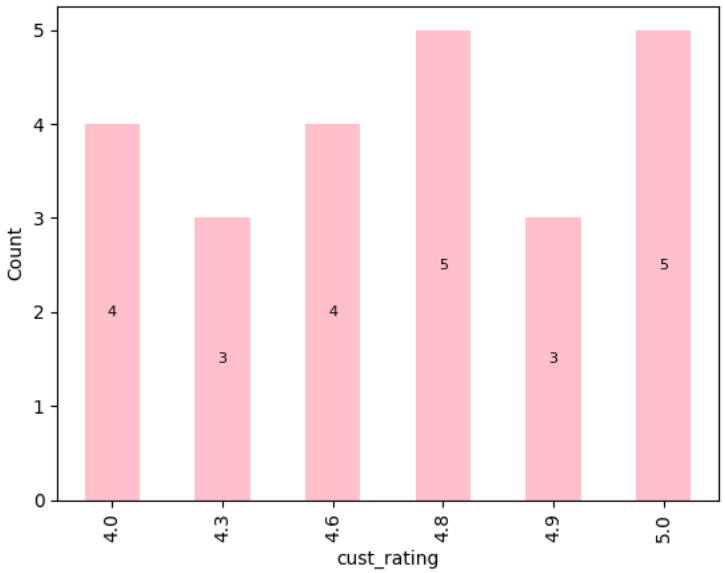
```
data.info()
```

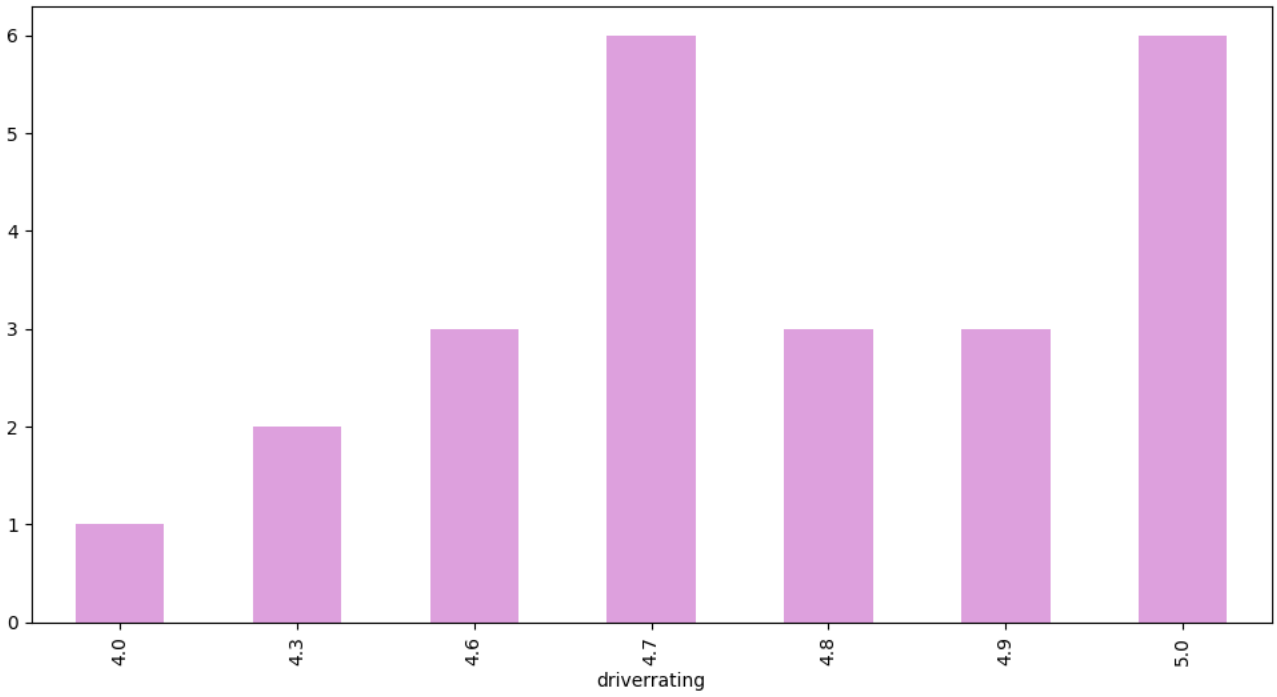
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 24 entries, 0 to 23
Data columns (total 6 columns):
 #   Column          Non-Null Count  Dtype
---  ------          --------------  -----
 0   tgl_waktu       24 non-null     object
 1   jarak (km)      24 non-null     float64
 2   durasi (menit)  24 non-null     int64
 3   harga           24 non-null     int64
 4   driverrating    24 non-null     float64
 5   cust_rating     24 non-null     float64
```

```
dtypes: float64(3), int64(2), object(1)
memory usage: 1.2+ KB
```

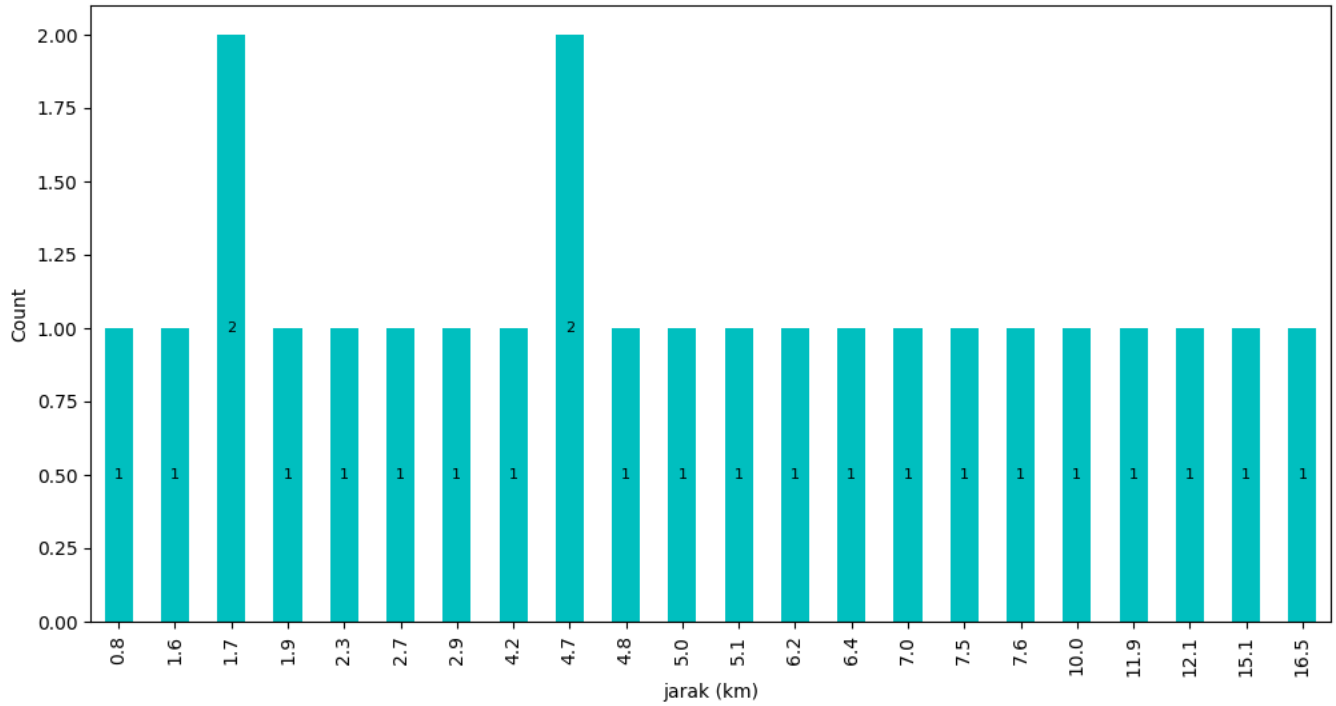
```
def plot_counts(ax):
  for c in ax.containers:
    labels = [v.get_height() if v.get_height() > 0 else '' for v in c]

    ax.bar_label(c, labels=labels, label_type = 'center', fontsize=8)
  plt.ylabel('Count')
  plt.show()

  plt.rcParams["figure.figsize"]=(12,6)

  ax = data.groupby('driverrating') ['jarak (km)'].count().reset_index().plot(
      kind='bar', stacked=False, x='driverrating', color='plum', legend=False)
```

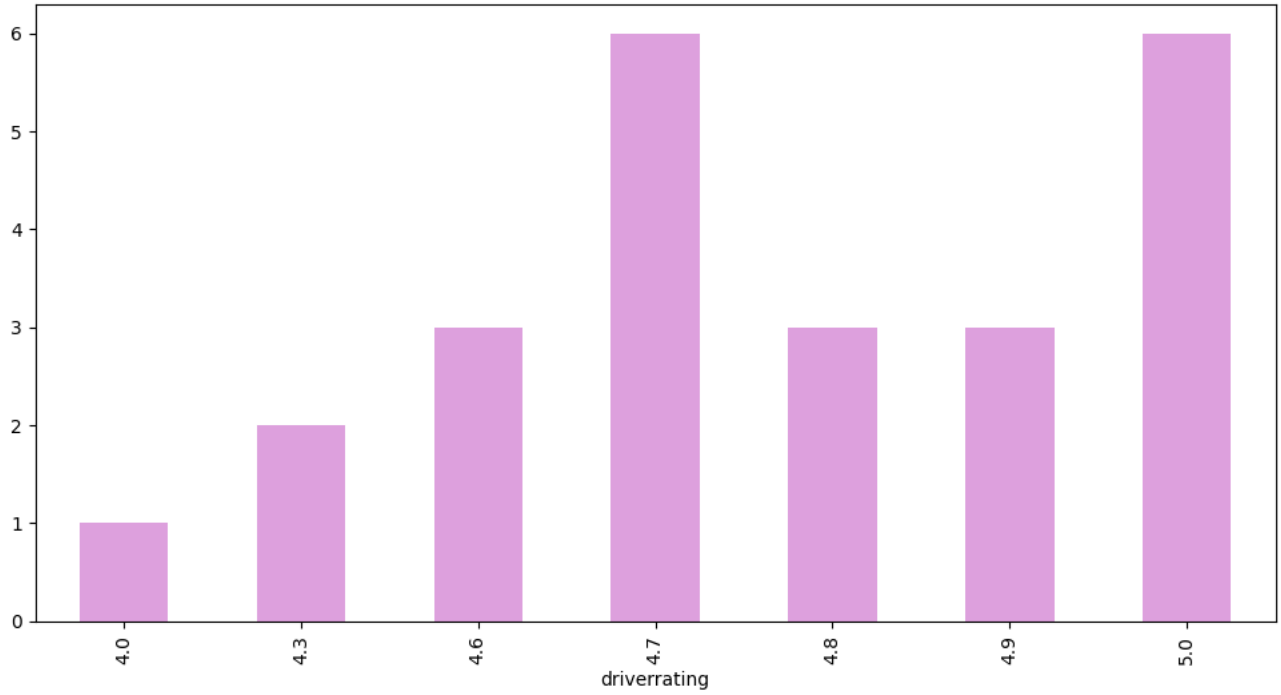
```
ax = data.groupby('cust_rating')['harga'].count().reset_index().plot(
    kind='bar', stacked = False, x='cust_rating', color='pink', legend = False)
plot_counts(ax)
```





```
ax = data.groupby('jarak (km)')['durasi (menit)'].count().reset_index().plot(
    kind='bar', stacked = False, x='jarak (km)', color='c', legend = False)
plot_counts(ax)
```






```
first_option_data = data [(data['jarak (km)'] >= 5) & (data['durasi (menit)'] >= 10) &
                          (data['harga'] >= 10000) & (data['driverrating'] >= 4.7)]
first_option_data.head()
```

	tgl_waktu	jarak (km)	durasi (menit)	harga	driverrating	cust_rating
0	1/1/2016 21:17	5.1	18	22000	4.8	4.0
1	1/2/2016 1:37	5.0	15	20000	4.7	5.0
7	1/10/2016 19:32	7.5	23	30000	4.9	4.0
8	1/11/2016 9:21	6.2	20	24800	4.8	4.8
9	1/11/2016 12:03	6.4	24	25600	4.7	5.0

0s completed at 2:34 PM