

# Anjali vishwakarma

In [1]: pip install pandas

```
Requirement already satisfied: pandas in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (2.2.3)
Requirement already satisfied: numpy>=1.26.0 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from pandas) (2.1.2)
Requirement already satisfied: python-dateutil>=2.8.2 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from pandas) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from pandas) (2024.2)
Requirement already satisfied: tzdata>=2022.7 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from pandas) (2024.2)
Requirement already satisfied: six>=1.5 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from python-dateutil>=2.8.2->pandas) (1.16.0)
Note: you may need to restart the kernel to use updated packages.
```

[notice] A new release of pip is available: 24.1.1 -> 24.2

[notice] To update, run: python.exe -m pip install --upgrade pip

In [2]: pip install seaborn

```
Requirement already satisfied: seaborn in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (0.13.2)
Note: you may need to restart the kernel to use updated packages.
```

```
Requirement already satisfied: numpy!=1.24.0,>=1.20 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from seaborn) (2.1.2)
Requirement already satisfied: pandas>=1.2 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from seaborn) (2.2.3)
Requirement already satisfied: matplotlib!=3.6.1,>=3.4 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from seaborn) (3.9.2)
Requirement already satisfied: contourpy>=1.0.1 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (1.3.0)
Requirement already satisfied: cycler>=0.10 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (0.12.1)
Requirement already satisfied: fonttools>=4.22.0 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (4.5.4.1)
Requirement already satisfied: kiwisolver>=1.3.1 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (1.4.7)
Requirement already satisfied: packaging>=20.0 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (24.1)
Requirement already satisfied: pillow>=8 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (11.0.0)
Requirement already satisfied: pyparsing>=2.3.1 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (3.2.0)
Requirement already satisfied: python-dateutil>=2.7 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from matplotlib!=3.6.1,>=3.4->seaborn) (2.9.0.post0)
Requirement already satisfied: pytz>=2020.1 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from pandas>=1.2->seaborn) (2024.2)
Requirement already satisfied: tzdata>=2022.7 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from pandas>=1.2->seaborn) (2024.2)
Requirement already satisfied: six>=1.5 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from python-dateutil>=2.7->matplotlib!=3.6.1,>=3.4->seaborn) (1.16.0)
```

[notice] A new release of pip is available: 24.1.1 -> 24.2

[notice] To update, run: python.exe -m pip install --upgrade pip

In [3]: pip install scipy

```
Requirement already satisfied: scipy in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (1.14.1)
Requirement already satisfied: numpy<2.3,>=1.23.5 in c:\users\nano\appdata\local\programs\python\python312\lib\site-packages (from scipy) (2.1.2)
Note: you may need to restart the kernel to use updated packages.
```

```
[notice] A new release of pip is available: 24.1.1 -> 24.2
[notice] To update, run: python.exe -m pip install --upgrade pip
```

```
In [4]: #import python Libraries
import numpy as np
import pandas as pd
```

```
In [13]: df = pd.read_csv(r"C:\Users\nano\OneDrive\Desktop\train.csv", encoding='ISO-8859-1'
```

```
In [14]: # r"C:\Users\nano\OneDrive\Desktop\train.csv", encoding='ISO-8859-1'
```

```
In [15]: df.columns.values
```

```
Out[15]: array(['Station', 'Station Code', 'Line',
       'Distance From Previous of the Line',
       'Time taken From Previous of the Line', 'About', 'Platforms',
       'Tracks', 'Year of Opening ', 'Nearby attractions',
       'Number of Passengers ', 'Previous names'], dtype=object)
```

```
In [16]: df.dtypes
```

```
Out[16]: Station          object
Station Code      object
Line            object
Distance From Previous of the Line    object
Time taken From Previous of the Line    object
About           object
Platforms        float64
Tracks           float64
Year of Opening   float64
Nearby attractions  object
Number of Passengers  object
Previous names     object
dtype: object
```

```
In [17]: df.shape
```

```
Out[17]: (202, 12)
```

```
In [18]: df.shape[0]
```

```
Out[18]: 202
```

```
In [19]: df.shape[1]
```

```
Out[19]: 12
```

```
In [20]: df.head(5)
```

Out[20]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening
0	Churchgate	CCG	Western	0 KM	0 min	The Fort area built by the British had three m...	4.0	4.0	1867.0
1	Marine Lines	MEL	Western	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	4.0	1867.0
2	Charni Road	CYR	Western	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	4.0	1867.0
3	Grant Road	GTR	Western	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	4.0	NaN
4	Mumbai Central	MMCT	Western	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	9.0	1930.0



In [21]: `df.tail(5)`

Out[21]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Ye Ope
197	Neral	NRL	Neral-Matheran	0 KM	0 min	Neral Junction is a railway station on the Cen...		2.0	2.0
198	Jummapatti	JTT	Neral-Matheran	5 KM	46 min	Jummapatti railway station is a railway statio...		NaN	NaN
199	Waterpipe	WTP	Neral-Matheran	6 KM	46 min	Water Pipe railway station is a railway statio...		NaN	NaN
200	Aman Lodge	AMNA	Neral-Matheran	7 KM	50 min	Aman Lodge railway station is a railway statio...		NaN	NaN
201	Matheran	MAE	Neral-Matheran	2 KM	18 min	Matheran Railway Station is the upper terminus...		NaN	NaN

In [23]: `df.info()`

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 202 entries, 0 to 201
Data columns (total 12 columns):
 #   Column           Non-Null Count  Dtype  
---  --  
 0   Station          202 non-null    object 
 1   Station Code     202 non-null    object 
 2   Line             202 non-null    object 
 3   Distance From Previous of the Line  202 non-null    object 
 4   Time taken From Previous of the Line  202 non-null    object 
 5   About            202 non-null    object 
 6   Platforms         197 non-null    float64 
 7   Tracks            193 non-null    float64 
 8   Year of Opening   83 non-null    float64 
 9   Nearby attractions 202 non-null    object 
 10  Number of Passengers  21 non-null    object 
 11  Previous names    11 non-null    object 
dtypes: float64(3), object(9)
memory usage: 19.1+ KB
```

In [26]: `df.Platforms.count()`

Out[26]: `np.int64(197)`

In [27]: `df.Platforms.value_counts()`

```
Out[27]: Platforms  
2.0    70  
4.0    49  
3.0    27  
8.0    12  
6.0    11  
7.0     9  
1.0     5  
5.0     5  
10.0    4  
15.0    3  
9.0     2  
Name: count, dtype: int64
```

```
In [28]: df.isnull()
```

```
Out[28]:
```

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	N attrac
0	False	False	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False	False	True
4	False	False	False	False	False	False	False	False	False	False
...	...	...	...	...	...	...	...	...	...	...
197	False	False	False	False	False	False	False	False	False	True
198	False	False	False	False	False	False	False	True	True	True
199	False	False	False	False	False	False	False	True	True	True
200	False	False	False	False	False	False	False	True	True	True
201	False	False	False	False	False	False	False	True	True	False

202 rows × 12 columns



```
In [29]: df.notnull()
```

Out[29]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	No attrac
0	True	True	True	True	True	True	True	True	True	True
1	True	True	True	True	True	True	True	True	True	True
2	True	True	True	True	True	True	True	True	True	True
3	True	True	True	True	True	True	True	True	True	False
4	True	True	True	True	True	True	True	True	True	True
...	...	...	...	...	...	...	...	...	...	...
197	True	True	True	True	True	True	True	True	True	False
198	True	True	True	True	True	True	True	False	False	False
199	True	True	True	True	True	True	True	False	False	False
200	True	True	True	True	True	True	True	False	False	False
201	True	True	True	True	True	True	True	False	False	True

202 rows × 12 columns



In [30]: `df[df.notnull()]`

Out[30]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Y Op
0	Churchgate	CCG	Western	0 KM	0 min	The Fort area built by the British had three m...	4.0	4.0	-
1	Marine Lines	MEL	Western	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	4.0	-
2	Charni Road	CYR	Western	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	4.0	-
3	Grant Road	GTR	Western	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	4.0	-
4	Mumbai Central	MMCT	Western	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	9.0	-
...	...	...	...	...	...	...	...	...	-
197	Neral	NRL	Neral-Matheran	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	2.0	-
198	Jumapatti	JTT	Neral-Matheran	5 KM	46 min	Jummapatti railway station is a railway statio...	NaN	NaN	-
199	Waterpipe	WTP	Neral-Matheran	6 KM	46 min	Water Pipe railway station is a railway statio...	NaN	NaN	-
200	Aman Lodge	AMNA	Neral-Matheran	7 KM	50 min	Aman Lodge railway station is a railway statio...	NaN	NaN	-
201	Matheran	MAE	Neral-Matheran	2 KM	18 min	Matheran Railway Station is the upper terminus...	NaN	NaN	-

202 rows × 12 columns

```
In [31]: df[df.isnull()]
```

Out[31]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	N	attrac
0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
3	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...	...	...	...	...	...
197	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
198	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
199	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
200	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
201	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

202 rows × 12 columns

```
In [32]: df.describe()
```

Out[32]:

	Platforms	Tracks	Year of Opening
count	197.000000	193.000000	83.000000
mean	3.934010	4.792746	1914.542169
std	2.505242	2.717334	52.801354
min	1.000000	1.000000	1853.000000
25%	2.000000	3.000000	1867.500000
50%	3.000000	4.000000	1893.000000
75%	4.000000	6.000000	1966.000000
max	15.000000	13.000000	2018.000000

```
In [35]: df.sum(numeric_only=True)
```

Out[35]: Platforms 775.0  
Tracks 925.0  
Year of Opening 158907.0  
dtype: float64

```
In [36]: df.mean(numeric_only=True)
```

Out[36]: Platforms 3.934010  
Tracks 4.792746  
Year of Opening 1914.542169  
dtype: float64

```
In [39]: df.corr(numeric_only=True)
```

```
Out[39]:
```

	Platforms	Tracks	Year of Opening
Platforms	1.000000	0.864724	-0.369114
Tracks	0.864724	1.000000	-0.300378
Year of Opening	-0.369114	-0.300378	1.000000

```
In [41]: df.cov(numeric_only=True)
```

```
Out[41]:
```

	Platforms	Tracks	Year of Opening
Platforms	6.276235	5.926706	-58.554351
Tracks	5.926706	7.383905	-45.441734
Year of Opening	-58.554351	-45.441734	2787.982956

```
In [42]: df.Platforms.mean()
```

```
Out[42]: np.float64(3.934010152284264)
```

```
In [43]: df.Tracks.sum()
```

```
Out[43]: np.float64(925.0)
```

```
In [44]: df.fillna(0)
```

Out[44]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Y Op
0	Churchgate	CCG	Western	0 KM	0 min	The Fort area built by the British had three m...	4.0	4.0	-
1	Marine Lines	MEL	Western	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	4.0	-
2	Charni Road	CYR	Western	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	4.0	-
3	Grant Road	GTR	Western	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	4.0	-
4	Mumbai Central	MMCT	Western	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	9.0	-
...	...	...	...	...	...	...	...	...	-
197	Neral	NRL	Neral-Matheran	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	2.0	-
198	Jumapatti	JTT	Neral-Matheran	5 KM	46 min	Jummapatti railway station is a railway statio...	0.0	0.0	-
199	Waterpipe	WTP	Neral-Matheran	6 KM	46 min	Water Pipe railway station is a railway statio...	0.0	0.0	-
200	Aman Lodge	AMNA	Neral-Matheran	7 KM	50 min	Aman Lodge railway station is a railway statio...	0.0	0.0	-
201	Matheran	MAE	Neral-Matheran	2 KM	18 min	Matheran Railway Station is the upper terminus...	0.0	0.0	-

202 rows × 12 columns

```
In [45]: df.isnull()
```

Out[45]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	N	attractions
0	False	False	False	False	False	False	False	False	False	False	False
1	False	False	False	False	False	False	False	False	False	False	False
2	False	False	False	False	False	False	False	False	False	False	False
3	False	False	False	False	False	False	False	False	False	True	
4	False	False	False	False	False	False	False	False	False	False	
...	...	...	...	...	...	...	...	...	...	...	...
197	False	False	False	False	False	False	False	False	False	True	
198	False	False	False	False	False	False	False	True	True	True	
199	False	False	False	False	False	False	False	True	True	True	
200	False	False	False	False	False	False	False	True	True	True	
201	False	False	False	False	False	False	False	True	True	False	

202 rows × 12 columns

```
In [46]: df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 202 entries, 0 to 201
Data columns (total 12 columns):
 #   Column           Non-Null Count  Dtype  
--- 
 0   Station          202 non-null    object 
 1   Station Code     202 non-null    object 
 2   Line             202 non-null    object 
 3   Distance From Previous of the Line  202 non-null    object 
 4   Time taken From Previous of the Line 202 non-null    object 
 5   About            202 non-null    object 
 6   Platforms        197 non-null    float64 
 7   Tracks           193 non-null    float64 
 8   Year of Opening  83 non-null    float64 
 9   Nearby attractions 202 non-null    object 
 10  Number of Passengers 21 non-null    object 
 11  Previous names   11 non-null    object 
dtypes: float64(3), object(9)
memory usage: 19.1+ KB
```

```
In [47]: df[df.isnull()]
```

Out[47]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	Attraction
0	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
1	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
2	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
3	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
4	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
...	...	...	...	...	...	...	...	...	...	...
197	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
198	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
199	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
200	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN
201	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN

202 rows × 12 columns



In [48]: `df1=df.drop(['Tracks'],axis=1)`  
`df1`

Out[48]:

	Station	Station Code	Line	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Year of Opening
0	Churchgate	CCG	Western	0 KM	0 min	The Fort area built by the British had three m...	4.0	1867.0
1	Marine Lines	MEL	Western	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	1867.0
2	Charni Road	CYR	Western	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	1867.0
3	Grant Road	GTR	Western	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	NaN
4	Mumbai Central	MMCT	Western	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	1930.0
...	...	...	...	...	...	...	...	...
197	Neral	NRL	Neral-Matheran	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	NaN
198	Jumapatti	JTT	Neral-Matheran	5 KM	46 min	Jummapatti railway station is a railway statio...	NaN	NaN
199	Waterpipe	WTP	Neral-Matheran	6 KM	46 min	Water Pipe railway station is a railway statio...	NaN	NaN
200	Aman Lodge	AMNA	Neral-Matheran	7 KM	50 min	Aman Lodge railway station is a railway statio...	NaN	NaN
201	Matheran	MAE	Neral-Matheran	2 KM	18 min	Matheran Railway Station is the upper terminus...	NaN	1907.0

202 rows × 11 columns

```
In [49]: df1.drop(['Station','Line'],axis=1)
```

Out[49]:

	Station Code	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Year of Opening	Nearby attractions	No Pa
0	CCG	0 KM	0 min	The Fort area built by the British had three m...	4.0	1867.0	Marine Drive,Nariman Point,Flora Fountain	
1	MEL	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	1867.0	Marine Drive,Girgaum Chowpatty Beach,Taraporew...	
2	CYR	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	1867.0	Girgaum Chowpatty Beach,Taraporewala Aquarium,...	
3	GTR	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	NaN	Taraporewala Aquarium,Girgaum Chowpatty Beach,...	
4	MMCT	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	1930.0	Haji Ali Dargah,Mahalakshmi Temple,Nehru Plane...	
...	...	...	...	...	...	...	...	...
197	NRL	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	NaN	Matheran Hill Railway,Louisa Point,Charlotte Lake	
198	JTT	5 KM	46 min	Jummapatti railway station is a railway statio...	NaN	NaN	Manas Mandir,Tungareshwar Wildlife Sanctuary,M...	
199	WTP	6 KM	46 min	Water Pipe railway station is a railway statio...	NaN	NaN	Manas Mandir,Tungareshwar Wildlife Sanctuary,M...	
200	AMNA	7 KM	50 min	Aman Lodge railway station is a railway statio...	NaN	NaN	Louisa Point,Echo Point,Panorama Point	
201	MAE	2 KM	18 min	Matheran Railway Station is the upper terminus...	NaN	1907.0	Charlotte Lake,Louisa Point,Panorama Point	

202 rows × 9 columns

```
In [52]: del df['Line']
```

```
In [53]: df
```

Out[53]:

	Station	Station Code	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	N
0	Churchgate	CCG	0 KM	0 min	The Fort area built by the British had three m...	4.0	4.0	1867.0	Pc
1	Marine Lines	MEL	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	4.0	1867.0	
2	Charni Road	CYR	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	4.0	1867.0	Gi B
3	Grant Road	GTR	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	4.0	NaN	A C
4	Mumbai Central	MMCT	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	9.0	1930.0	Da Ten
...	...	...	...	...	...	...	...	...	
197	Neral	NRL	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	2.0	NaN	Pc
198	Jumapatti	JTT	5 KM	46 min	Jummapatti railway station is a railway statio...	NaN	NaN	NaN	Mal
199	Waterpipe	WTP	6 KM	46 min	Water Pipe railway station is a railway statio...	NaN	NaN	NaN	Mal
200	Aman Lodge	AMNA	7 KM	50 min	Aman Lodge railway station is a railway statio...	NaN	NaN	NaN	Poi
201	Matheran	MAE	2 KM	18 min	Matheran Railway Station is the upper terminus...	NaN	NaN	1907.0	Ch Poi

202 rows × 11 columns

In [54]: df.T

Out[54]:

	0	1	2	3	
<b>Station</b>	Churchgate	Marine Lines	Charni Road	Grant Road	
<b>Station Code</b>	CCG	MEL	CYR	GTR	
<b>Distance From Previous of the Line</b>	0 KM	1 KM	1 KM	1 KM	
<b>Time taken From Previous of the Line</b>	0 min	3 min	2 min	3 min	
<b>About</b>	The Fort area built by the British had three m...	Marine Lines (station code: MEL) is a railway ...	Charni Road (formerly Churney Road, station co...)	Grant Road (/gra?nt/; station code: GTR), form...	Mur (former Ce
<b>Platforms</b>	4.0	4.0	4.0	4.0	
<b>Tracks</b>	4.0	4.0	4.0	4.0	
<b>Year of Opening</b>	1867.0	1867.0	1867.0	NaN	
<b>Nearby attractions</b>	Marine Drive,Nariman Point,Flora Fountain	Marine Drive,Girgaum Chowpatty Beach,Taraporewala Beach,Taraporew...	Girgaum Chowpatty Beach,Taraporewala Aquarium,...	Taraporewala Aquarium,Girgaum Chowpatty Beach,...	Dargah,M Te
<b>Number of Passengers</b>	NaN	NaN	NaN	NaN	
<b>Previous names</b>	NaN	NaN	NaN	NaN (Subur Boml	

11 rows × 202 columns

In [55]: df.transpose()

Out[55]:

	0	1	2	3	
Station	Churchgate	Marine Lines	Charni Road	Grant Road	
Station Code	CCG	MEL	CYR	GTR	
Distance From Previous of the Line	0 KM	1 KM	1 KM	1 KM	
Time taken From Previous of the Line	0 min	3 min	2 min	3 min	
About	The Fort area built by the British had three m...	Marine Lines (station code: MEL) is a railway ...	Charni Road (formerly Churney Road, station co...	Grant Road (/gra?nt/; station code: GTR), form...	Mur (former Ce...
Platforms	4.0	4.0	4.0	4.0	
Tracks	4.0	4.0	4.0	4.0	
Year of Opening	1867.0	1867.0	1867.0	NaN	
Nearby attractions	Marine Drive,Nariman Point,Flora Fountain	Marine Drive,Girgaum Chowpatty Beach,Taraporewala Beach,Taraporewala...	Girgaum Chowpatty Beach,Taraporewala Aquarium,...	Taraporewala Aquarium,Girgaum Chowpatty Beach,...	Dargah,M...
Number of Passengers	NaN	NaN	NaN	NaN	
Previous names	NaN	NaN	NaN	NaN	

11 rows × 202 columns



In [56]:

```
df['new']=12
df
```

Out[56]:

	Station	Station Code	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	N
0	Churchgate	CCG	0 KM	0 min	The Fort area built by the British had three m...	4.0	4.0	1867.0	Pc
1	Marine Lines	MEL	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	4.0	1867.0	
2	Charni Road	CYR	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	4.0	1867.0	Gi B
3	Grant Road	GTR	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	4.0	NaN	A C
4	Mumbai Central	MMCT	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	9.0	1930.0	Da Ten
...	...	...	...	...	...	...	...	...	
197	Neral	NRL	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	2.0	NaN	Pc
198	Jumapatti	JTT	5 KM	46 min	Jummapatti railway station is a railway statio...	NaN	NaN	NaN	Mal
199	Waterpipe	WTP	6 KM	46 min	Water Pipe railway station is a railway statio...	NaN	NaN	NaN	Mal
200	Aman Lodge	AMNA	7 KM	50 min	Aman Lodge railway station is a railway statio...	NaN	NaN	NaN	Poi
201	Matheran	MAE	2 KM	18 min	Matheran Railway Station is the upper terminus...	NaN	NaN	1907.0	Ch Poi

202 rows × 12 columns

```
In [58]: df[ 'new' ] = [3.0, 1.3, 2.2, 0.8, 1.1] * (len(df) // 5) + [3.0, 1.3, 2.2, 0.8, 1.1][  
df
```

Out[58]:

	Station	Station Code	Distance From Previous of the Line	Time taken From Previous of the Line	About	Platforms	Tracks	Year of Opening	N
0	Churchgate	CCG	0 KM	0 min	The Fort area built by the British had three m...	4.0	4.0	1867.0	Pc
1	Marine Lines	MEL	1 KM	3 min	Marine Lines (station code: MEL) is a railway ...	4.0	4.0	1867.0	
2	Charni Road	CYR	1 KM	2 min	Charni Road (formerly Churney Road, station co...	4.0	4.0	1867.0	Gi B
3	Grant Road	GTR	1 KM	3 min	Grant Road (/gra?nt/; station code: GTR), form...	4.0	4.0	NaN	A C
4	Mumbai Central	MMCT	1 KM	2 min	Mumbai Central (formerly Bombay Central, stati...	9.0	9.0	1930.0	Da Ten
...	...	...	...	...	...	...	...	...	
197	Neral	NRL	0 KM	0 min	Neral Junction is a railway station on the Cen...	2.0	2.0	NaN	Pc
198	Jumapatti	JTT	5 KM	46 min	Jummapatti railway station is a railway statio...	NaN	NaN	NaN	Mal
199	Waterpipe	WTP	6 KM	46 min	Water Pipe railway station is a railway statio...	NaN	NaN	NaN	Mal
200	Aman Lodge	AMNA	7 KM	50 min	Aman Lodge railway station is a railway statio...	NaN	NaN	NaN	Poi
201	Matheran	MAE	2 KM	18 min	Matheran Railway Station is the upper terminus...	NaN	NaN	1907.0	Ch Poi

202 rows × 12 columns

In [ ]: