

```
In [2]: import pandas as pd
```

```
In [3]: df = pd.read_csv(r'C:\Users\Nitika\Downloads/IPL Matches 2008-2020.csv')
```

```
In [4]: df
```

		id	city	date	player_of_match	venue	neutral_venue	team1	team2	toss_w
0	335982	Bangalore	2008-04-18	BB McCullum	Chinnaswamy Stadium	M	0	Royal Challengers Bangalore	Kolkata Knight Riders	Chall Bar
1	335983	Chandigarh	2008-04-19	MEK Hussey	Punjab Cricket Association Stadium, Mohali		0	Kings XI Punjab	Chennai Super Kings	C Supe
2	335984	Delhi	2008-04-19	MF Maharoo	Feroz Shah Kotla		0	Delhi Daredevils	Rajasthan Royals	Raj
3	335985	Mumbai	2008-04-20	MV Boucher	Wankhede Stadium		0	Mumbai Indians	Royal Challengers Bangalore	M
4	335986	Kolkata	2008-04-20	DJ Hussey	Eden Gardens		0	Kolkata Knight Riders	Deccan Chargers	I Ch
...
811	1216547	Dubai	2020-09-28	AB de Villiers	Dubai International Cricket Stadium		0	Royal Challengers Bangalore	Mumbai Indians	M
812	1237177	Dubai	2020-11-05	JJ Bumrah	Dubai International Cricket Stadium		0	Mumbai Indians	Delhi Capitals	C
813	1237178	Abu Dhabi	2020-11-06	KS Williamson	Sheikh Zayed Stadium		0	Royal Challengers Bangalore	Sunrisers Hyderabad	Su Hyd
814	1237180	Abu Dhabi	2020-11-08	MP Stoinis	Sheikh Zayed Stadium		0	Delhi Capitals	Sunrisers Hyderabad	C
815	1237181	Dubai	2020-11-10	TA Boult	Dubai International Cricket Stadium		0	Delhi Capitals	Mumbai Indians	C

816 rows × 17 columns

```
In [11]: df.head(5)
```

Out[11]:

		id	city	date	player_of_match	venue	neutral_venue	team1	team2	toss_winner
0	335982	Bangalore	2008-04-18	BB McCullum	Chinnaswamy Stadium	M	0	Royal Challengers Bangalore	Kolkata Knight Riders	Royal Challengers Bangalore
1	335983	Chandigarh	2008-04-19	MEK Hussey	Punjab Cricket Association Stadium, Mohali		0	Kings XI Punjab	Chennai Super Kings	Chennai Super Kings
2	335984	Delhi	2008-04-19	MF Maharoo	Feroz Shah Kotla		0	Delhi Daredevils	Rajasthan Royals	Rajasthan Royals
3	335985	Mumbai	2008-04-20	MV Boucher	Wankhede Stadium		0	Mumbai Indians	Royal Challengers Bangalore	Mumbai Indians
4	335986	Kolkata	2008-04-20	DJ Hussey	Eden Gardens		0	Kolkata Knight Riders	Deccan Chargers	Deccan Chargers

In [12]:

```
df.tail(5)
```

Out[12]:

		id	city	date	player_of_match	venue	neutral_venue	team1	team2	toss_winner
811	1216547	Dubai	2020-09-28	AB de Villiers	Dubai International Cricket Stadium		0	Royal Challengers Bangalore	Mumbai Indians	Mumbai Indians
812	1237177	Dubai	2020-11-05	JJ Bumrah	Dubai International Cricket Stadium		0	Mumbai Indians	Delhi Capitals	Delhi Capitals
813	1237178	Abu Dhabi	2020-11-06	KS Williamson	Sheikh Zayed Stadium		0	Royal Challengers Bangalore	Sunrisers Hyderabad	Sunrisers Hyderabad
814	1237180	Abu Dhabi	2020-11-08	MP Stoinis	Sheikh Zayed Stadium		0	Delhi Capitals	Sunrisers Hyderabad	Delhi Capitals
815	1237181	Dubai	2020-11-10	TA Boult	Dubai International Cricket Stadium		0	Delhi Capitals	Mumbai Indians	Delhi Capitals

In [13]:

```
df.sample()
```

Out[13]:

		id	city	date	player_of_match	venue	neutral_venue	team1	team2	toss_winner
528	980923	Hyderabad	2016-04-18	DA Warner	Rajiv Gandhi International Stadium, Uppal		0	Sunrisers Hyderabad	Mumbai Indians	Sunrisers Hyderabad

In [20]:

```
df[df['city']=='Delhi'].groupby('player_of_match').median()
```

player_of_match		id	neutral_venue	result_margin
A Mishra	980913.0		0.0	8.0
A Symonds	419160.0		0.0	11.0
AB de Villiers	1136605.0		0.0	5.0
AM Rahane	980965.0		0.0	7.0
AR Patel	734019.0		0.0	4.0
AS Rajpoot	1136582.0		0.0	4.0
BJ Hodge	598071.0		0.0	4.0
CH Gayle	548372.0		0.0	21.0
CH Morris	980945.0		0.0	1.0
CJ Anderson	1082605.0		0.0	51.0
CR Brathwaite	980951.0		0.0	27.0
DA Warner	501223.0		0.0	29.0
DJ Hooda	829715.0		0.0	3.0
DPMD Jayawardene	336022.0		0.0	6.0
DR Smith	733981.0		0.0	8.0
DW Steyn	733993.0		0.0	8.0
G Gambhir	733985.0		0.0	8.0
GD McGrath	335998.0		0.0	10.0
HH Pandya	1178409.0		0.0	40.0
HV Patel	1109629.0		0.0	22.0
Harmeet Singh	598059.0		0.0	5.0
JD Unadkat	598054.0		0.0	4.0
JH Kallis	548357.0		0.0	6.0
JM Bairstow	1175371.0		0.0	5.0
KD Karthik	377583.0		0.0	36.0
KK Nair	908308.5		0.0	7.0
KP Pietersen	548321.0		0.0	5.0
LMP Simmons	1082635.0		0.0	146.0
M Morkel	548316.0		0.0	8.0
MC Henriques	981015.0		0.0	22.0
MEK Hussey	598045.0		0.0	67.0
MF Maharooof	335984.0		0.0	9.0
MK Tiwary	501230.0		0.0	17.0
ML Hayden	419116.0		0.0	5.0
MS Dhoni	336009.0		0.0	4.0
Mohammed Shami	1082630.0		0.0	6.0
NM Coulter-Nile	956187.5		0.0	6.5
P Parameswaran	501238.0		0.0	7.0

	id	neutral_venue	result_margin
player_of_match			
PD Collingwood	419140.0	0.0	37.0
PP Chawla	419149.0	0.0	7.0
PP Shaw	1175365.0	0.0	NaN
R Dravid	598001.0	0.0	5.0
RR Pant	1109612.0	0.0	5.5
S Dhawan	1157511.5	0.0	12.5
S Sohal	501216.0	0.0	16.0
SC Ganguly	548333.0	0.0	20.0
SL Malinga	501201.0	0.0	8.0
SR Tendulkar	419114.0	0.0	98.0
SR Watson	1175360.0	0.0	6.0
SS Iyer	1136586.0	0.0	37.0
SV Samson	980933.0	0.0	10.0
UT Yadav	689054.0	0.0	5.5
V Kohli	501227.0	0.0	3.0
V Sehwag	548345.0	0.0	9.0
VR Aaron	829757.0	0.0	10.0

```
In [21]: df[df['city']=='Delhi'].groupby('toss_winner').median()
```

```
Out[21]:
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	id	neutral_venue	result_margin
toss_winner			
Chennai Super Kings	598070.0	0.0	34.0
Deccan Chargers	460188.0	0.0	11.5
Delhi Capitals	1176888.5	0.0	6.0
Delhi Daredevils	548372.0	0.0	8.0
Kings XI Punjab	573214.0	0.0	5.0
Kochi Tuskers Kerala	501238.0	0.0	7.0
Kolkata Knight Riders	980983.0	0.0	24.5
Mumbai Indians	829747.0	0.0	37.0
Rajasthan Royals	781845.0	0.0	5.0
Rising Pune Supergiants	980965.0	0.0	7.0
Royal Challengers Bangalore	829757.0	0.0	10.0
Sunrisers Hyderabad	857505.0	0.0	4.5

```
In [27]: df[df['city']=='Abu Dhabi'].groupby('toss_winner').median()
```

Out[27]:

	id	neutral_venue	result_margin
toss_winner			
Chennai Super Kings	1216492.0	0.0	7.0
Delhi Capitals	1216529.0	0.0	15.0
Kings XI Punjab	1216503.0	0.0	48.0
Kolkata Knight Riders	1216501.0	0.0	10.0
Mumbai Indians	1216511.0	0.0	8.0
Rajasthan Royals	729315.0	1.0	6.5
Sunrisers Hyderabad	1216545.0	0.0	6.5

```
In [28]: a = [1,2,3]
b = [8,9,7]
c = a+b
c
```

Out[28]: [1, 2, 3, 8, 9, 7]

```
In [29]: c.append('Ram')
```

```
In [30]: c
```

Out[30]: [1, 2, 3, 8, 9, 7, 'Ram']

```
In [5]: df['city'].append(pd.Series(['xyz']))
```

C:\Users\Nitika\AppData\Local\Temp\ipykernel_19424\3365602900.py:1: FutureWarning: The series.append method is deprecated and will be removed from pandas in a future version. Use pandas.concat instead.

```
df['city'].append(pd.Series(['xyz']))
```

```
Out[5]: 0      Bangalore
1      Chandigarh
2         Delhi
3         Mumbai
4         Kolkata
...
812        Dubai
813     Abu Dhabi
814     Abu Dhabi
815        Dubai
0         xyz
Length: 817, dtype: object
```

```
In [6]: df[['city','toss_winner']].append(pd.DataFrame(['xyz']))
```

C:\Users\Nitika\AppData\Local\Temp\ipykernel_19424\1095306480.py:1: FutureWarning: The frame.append method is deprecated and will be removed from pandas in a future version. Use pandas.concat instead.

```
df[['city','toss_winner']].append(pd.DataFrame(['xyz']))
```

Out [6]:

	city	toss_winner	0
0	Bangalore	Royal Challengers Bangalore	NaN
1	Chandigarh	Chennai Super Kings	NaN
2	Delhi	Rajasthan Royals	NaN
3	Mumbai	Mumbai Indians	NaN
4	Kolkata	Deccan Chargers	NaN
...
812	Dubai	Delhi Capitals	NaN
813	Abu Dhabi	Sunrisers Hyderabad	NaN
814	Abu Dhabi	Delhi Capitals	NaN
815	Dubai	Delhi Capitals	NaN
0	NaN	NaN	xyz

817 rows × 3 columns

In []: