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

```
In [ ]:
```

```
In [144… sportsstats = pd.read_csv('/Project/athlete_events.csv',index_col = 0)
         noc=pd.read_csv('/Project/noc_regions.csv',index_col = 0)
```

```
In [15]: sportsstats.head()
```

Out[15]:

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Sport
1	A Dijiang	M	24.0	180.0	80.0	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketball
2	A Lamusi	M	23.0	170.0	60.0	China	CHN	2012 Summer	2012	Summer	London	Judo
3	Gunnar Nielsen Aaby	M	24.0	NaN	NaN	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Football
4	Edgar Lindenau Aabye	M	34.0	NaN	NaN	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-Of-War
5	Christine Jacoba Aaftink	F	21.0	185.0	82.0	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Speed Skating

```
In [145… noc.head()
```

Out[145]:

NOC	region	notes
AFG	Afghanistan	NaN
AHO	Curacao	Netherlands Antilles
ALB	Albania	NaN
ALG	Algeria	NaN
AND	Andorra	NaN

```
In [ ]:
```

```
In [ ]:
```

```
In [2]: import sqlalchemy
```

```
In [3]: engine=sqlalchemy.create_engine('sqlite:///athlete.db')
```

```
In [4]: %load_ext sql
```

```
In [19]: %reload_ext sql
```

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```
In [5]:    %sql sqlite:///athlete.db
```

```
In [21]:   # %%sql

           # CREATE TABLE athlete_data(ID number(10), Name char(30), Sex char(3), Age number(3), He
```

```
In [107…   %%sql
           drop table athlete_data
```
```
 * sqlite:///athlete.db
Done.
```
Out[107]: []

```
In [23]:   sportsstats.to_sql('athlete_data',engine)
```
Out[23]:   271116

```
In [32]:   %%sql
           pragma table_info('athlete_data')
```
```
 * sqlite:///athlete.db
Done.
```

Out[32]:

cid	name	type	notnull	dflt_value	pk
0	ID	BIGINT	0	None	0
1	Name	TEXT	0	None	0
2	Sex	TEXT	0	None	0
3	Age	FLOAT	0	None	0
4	Height	FLOAT	0	None	0
5	Weight	FLOAT	0	None	0
6	Team	TEXT	0	None	0
7	NOC	TEXT	0	None	0
8	Games	TEXT	0	None	0
9	Year	BIGINT	0	None	0
10	Season	TEXT	0	None	0
11	City	TEXT	0	None	0
12	Sport	TEXT	0	None	0
13	Event	TEXT	0	None	0
14	Medal	TEXT	0	None	0

```
In [6]:    %%sql
           SELECT * from athlete_data limit 2
```
```
 * sqlite:///athlete.db
(sqlite3.OperationalError) no such table: athlete_data
[SQL: SELECT * from athlete_data limit 2]
(Background on this error at: https://sqlalche.me/e/14/e3q8)
```

```
In [86]:   %%sql
           CREATE TABLE athlete_data20 AS SELECT *, ROW_NUMBER() OVER (PARTITION BY ID ORDER BY ID)
```
```
 * sqlite:///athlete.db
Done.
```
           []
```

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```
In [7]:   # %%sql
          # select * from athlete_data20 limit 10;
```

 * sqlite:///athlete.db
Done.

Out[7]:

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Spo
1	A Dijiang	M	24.0	180.0	80.0	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketba
2	A Lamusi	M	23.0	170.0	60.0	China	CHN	2012 Summer	2012	Summer	London	Jud
3	Gunnar Nielsen Aaby	M	24.0	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Footba
4	Edgar Lindenau Aabye	M	34.0	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-C W
5	Christine Jacoba Aaftink	F	21.0	185.0	82.0	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Spee Skatir
6	Per Knut Aaland	M	31.0	188.0	75.0	United States	USA	1992 Winter	1992	Winter	Albertville	Cros Count Skiir
7	John Aalberg	M	31.0	183.0	72.0	United States	USA	1992 Winter	1992	Winter	Albertville	Cros Count Skiir
8	Cornelia "Cor" Aalten (-Strannood)	F	18.0	168.0	None	Netherlands	NED	1932 Summer	1932	Summer	Los Angeles	Athleti
9	Antti Sami Aalto	M	26.0	186.0	96.0	Finland	FIN	2002 Winter	2002	Winter	Salt Lake City	I Hocke
10	Einar Ferdinand "Einari" Aalto	M	26.0	None	None	Finland	FIN	1952 Summer	1952	Summer	Helsinki	Swimmir

```
In [89]:  # %%sql
          # DELETE FROM athlete_data20 WHERE row_num > 1;
```

 * sqlite:///athlete.db
135545 rows affected.

Out[89]: []

```
In [97]:  # %%sql
          # alter table athlete_data20 drop column row_num;
```

 * sqlite:///athlete.db
Done.

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```
Out[97]:    []
```

```
In [102…   # %%sql
           # create table athlete_data as select * from athlete_data20
```

```
 * sqlite:///athlete.db
Done.
```

```
Out[102]:  []
```

```
In [133…   # %%sql
           # SELECT * from athlete_data20 limit 10
```

```
 * sqlite:///athlete.db
Done.
```

Out[133]:

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Sp
1	A Dijiang	M	24.0	180.0	80.0	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketl
2	A Lamusi	M	23.0	170.0	60.0	China	CHN	2012 Summer	2012	Summer	London	Ju
3	Gunnar Nielsen Aaby	M	24.0	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Footl
4	Edgar Lindenau Aabye	M	34.0	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-V
5	Christine Jacoba Aaftink	F	21.0	185.0	82.0	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Spe Skat
6	Per Knut Aaland	M	31.0	188.0	75.0	United States	USA	1992 Winter	1992	Winter	Albertville	Cr Cour Ski
7	John Aalberg	M	31.0	183.0	72.0	United States	USA	1992 Winter	1992	Winter	Albertville	Cr Cour Ski
8	Cornelia "Cor" Aalten (-Strannood)	F	18.0	168.0	None	Netherlands	NED	1932 Summer	1932	Summer	Los Angeles	Athle
9	Antti Sami Aalto	M	26.0	186.0	96.0	Finland	FIN	2002 Winter	2002	Winter	Salt Lake City	Hoc
10	Einar Ferdinand "Einari" Aalto	M	26.0	None	None	Finland	FIN	1952 Summer	1952	Summer	Helsinki	Swimm

```
In [136…   # %%sql
           # alter table athlete_data20 add `Avg. Weight for NULL Values` Number(5)
```

```
 * sqlite:///athlete.db
Done.
```

```
Out[136]:  []
```

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In [140…
```
# %%sql
# alter table athlete_data20 add `Avg. Height for NULL Values` number(5)
```

* sqlite:///athlete.db
Done.

Out[140]: []

In [141…
```
# %%sql
# update athlete_data20 set `Avg. Weight for NULL Values`= 85.5 where Weight is null;
# update athlete_data20 set `Avg. Height for NULL Values`=180.0 where Height is null;
```

* sqlite:///athlete.db
69770 rows affected.
68801 rows affected.

Out[141]: []

In [175…
```
# %%sql
# SELECT * from athlete_data20 limit 5
```

* sqlite:///athlete.db
Done.

Out[175]:

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Spor
1	A Dijiang	M	24.0	180.0	80.0	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketba
2	A Lamusi	M	23.0	170.0	60.0	China	CHN	2012 Summer	2012	Summer	London	Jud
3	Gunnar Nielsen Aaby	M	24.0	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Footba
4	Edgar Lindenau Aabye	M	34.0	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-Of Wa
5	Christine Jacoba Aaftink	F	21.0	185.0	82.0	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Spee Skating

In [146…
```
# noc.to_sql('noc_data',engine)
```

Out[146]: 230

In [148…
```
# %%sql
# pragma table_info('noc_data')
```

* sqlite:///athlete.db
Done.

Out[148]:

cid	name	type	notnull	dflt_value	pk
0	NOC	TEXT	0	None	0
1	region	TEXT	0	None	0
2	notes	TEXT	0	None	0

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```
In [174…    # %%sql
            # SELECT * from noc_data limit 10
```

```
 * sqlite:///athlete.db
Done.
```

Out[174]:

NOC	region	notes
AFG	Afghanistan	None
AHO	Curacao	Netherlands Antilles
ALB	Albania	None
ALG	Algeria	None
AND	Andorra	None
ANG	Angola	None
ANT	Antigua	Antigua and Barbuda
ANZ	Australia	Australasia
ARG	Argentina	None
ARM	Armenia	None

```
In [179…    # %%sql
            # select * from athlete_data20 where ID is null
```

```
 * sqlite:///athlete.db
Done.
```

Out[179]:

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Sport	Event	Medal	Avg. Weight for NULL Values

```
In [8]:    # %%sql
           # ALTER TABLE athelete_data20 ALTER COLUMN ID int NOT NULL
```

```
 * sqlite:///athlete.db
(sqlite3.OperationalError) near "ALTER": syntax error
[SQL: ALTER TABLE athelete_data20 ALTER COLUMN ID int NOT NULL]
(Background on this error at: https://sqlalche.me/e/14/e3q8)
```

```
In [181…    # %%sql
            # pragma table_info('athlete_data20')
```

```
 * sqlite:///athlete.db
Done.
```

Out[181]:

cid	name	type	notnull	dflt_value	pk
0	ID	INT	0	None	0
1	Name	TEXT	0	None	0
2	Sex	TEXT	0	None	0
3	Age	REAL	0	None	0
4	Height	REAL	0	None	0
5	Weight	REAL	0	None	0
6	Team	TEXT	0	None	0
7	NOC	TEXT	0	None	0
8	Games	TEXT	0	None	0
9	Year	INT	0	None	0
10	Season	TEXT	0	None	0
11	City	TEXT	0	None	0
12	Sport	TEXT	0	None	0
13	Event	TEXT	0	None	0
14	Medal	TEXT	0	None	0
15	Avg. Weight for NULL Values	Number(5)	0	None	0
16	Avg. Height for NULL Values	number(5)	0	None	0

In [22]:
```
# %%sql

# CREATE TABLE athlete_data(ID number(10), Name char(30), Sex char(3), Age number(3), He
```
 * sqlite:///athlete.db
Done.

Out[22]: []

In [20]:
```
# %%sql
# drop table athlete_data
```
 * sqlite:///athlete.db
(sqlite3.OperationalError) no such table: athlete_data
[SQL: drop table athlete_data]
(Background on this error at: https://sqlalche.me/e/14/e3q8)

In [24]:
```
# %%sql
# INSERT INTO athlete_data SELECT * FROM athlete_data20
```
 * sqlite:///athlete.db
135571 rows affected.

Out[24]: []

In [32]:
```
# %%sql
# select * from athlete_data limit 5
```
 * sqlite:///athlete.db
Done.

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ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Sport
1	A Dijiang	M	24	180	80	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketball
2	A Lamusi	M	23	170	60	China	CHN	2012 Summer	2012	Summer	London	Judo
3	Gunnar Nielsen Aaby	M	24	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Football
4	Edgar Lindenau Aabye	M	34	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-Of-War
5	Christine Jacoba Aaftink	F	21	185	82	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Speed Skating

In [31]:
```
# %%sql
# pragma table_info('athlete_data')
```

 * sqlite:///athlete.db
Done.

Out[31]:

cid	name	type	notnull	dflt_value	pk
0	ID	number(10)	0	None	1
1	Name	char(30)	0	None	0
2	Sex	char(3)	0	None	0
3	Age	number(3)	0	None	0
4	Height	number(4)	0	None	0
5	Weight	number(4)	0	None	0
6	Team	vachar(30)	0	None	0
7	NOC	varchar(10)	0	None	0
8	Games	char(30)	0	None	0
9	Year	number(4)	0	None	0
10	Season	varchar(15)	0	None	0
11	City	char(30)	0	None	0
12	Sport	varchar(20)	0	None	0
13	Event	varchar(30)	0	None	0
14	Medal	varchar(10)	0	None	0
15	Avg. Weight for NULL Values	Number(5)	0	None	0
16	Avg. Height for NULL Values	Number(5)	0	None	0

In [33]:
```
# %%sql
# select * from athlete_data limit 5
```

 * sqlite:///athlete.db
Done.

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`Out[33]:`

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Sport
1	A Dijiang	M	24	180	80	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketball
2	A Lamusi	M	23	170	60	China	CHN	2012 Summer	2012	Summer	London	Judo
3	Gunnar Nielsen Aaby	M	24	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Football
4	Edgar Lindenau Aabye	M	34	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-Of-War
5	Christine Jacoba Aaftink	F	21	185	82	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Speed Skating

`In [34]:`
```
# %%sql
# select * from noc_data limit 5
```
 * sqlite:///athlete.db
Done.

`Out[34]:`

NOC	region	notes
AFG	Afghanistan	None
AHO	Curacao	Netherlands Antilles
ALB	Albania	None
ALG	Algeria	None
AND	Andorra	None

`In [48]:`
```
# %%sql
# select a.*,n.notes from athlete_data as a left join noc_data as n on a.NOC=n.NOC LIMIT
```
 * sqlite:///athlete.db
Done.

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	
1	A Dijiang	M	24	180	80	China	CHN	1992 Summer	1992	Summer	Barcelona	Ba
2	A Lamusi	M	23	170	60	China	CHN	2012 Summer	2012	Summer	London	
3	Gunnar Nielsen Aaby	M	24	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	
4	Edgar Lindenau Aabye	M	34	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-
5	Christine Jacoba Aaftink	F	21	185	82	Netherlands	NED	1988 Winter	1988	Winter	Calgary	
6	Per Knut Aaland	M	31	188	75	United States	USA	1992 Winter	1992	Winter	Albertville	Cross
7	John Aalberg	M	31	183	72	United States	USA	1992 Winter	1992	Winter	Albertville	Cross
8	Cornelia "Cor" Aalten (-Strannood)	F	18	168	None	Netherlands	NED	1932 Summer	1932	Summer	Los Angeles	A
9	Antti Sami Aalto	M	26	186	96	Finland	FIN	2002 Winter	2002	Winter	Salt Lake City	Ice
10	Einar Ferdinand "Einari" Aalto	M	26	None	None	Finland	FIN	1952 Summer	1952	Summer	Helsinki	Sw
11	Jorma Ilmari Aalto	M	22	182	76.5	Finland	FIN	1980 Winter	1980	Winter	Lake Placid	Cross
12	Jyri Tapani Aalto	M	31	172	70	Finland	FIN	2000 Summer	2000	Summer	Sydney	Bad
13	Minna Maarit Aalto	F	30	159	55.5	Finland	FIN	1996 Summer	1996	Summer	Atlanta	
14	Pirjo Hannele Aalto (Mattila-)	F	32	171	65	Finland	FIN	1994 Winter	1994	Winter	Lillehammer	
15	Arvo Ossian Aaltonen	M	22	None	None	Finland	FIN	1912 Summer	1912	Summer	Stockholm	Sw
16	Juhamatti Tapio Aaltonen	M	28	184	85	Finland	FIN	2014 Winter	2014	Winter	Sochi	Ice
17	Paavo Johannes	M	28	175	64	Finland	FIN	1948 Summer	1948	Summer	London	Gym

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	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	
18	Timo Antero Aaltonen	M	31	189	130	Finland	FIN	2000 Summer	2000	Summer	Sydney	A
19	Win Valdemar Aaltonen	M	54	None	None	Finland	FIN	1948 Summer	1948	Summer	London	Comp
20	Kjetil Andr Aamodt	M	20	176	85	Norway	NOR	1992 Winter	1992	Winter	Albertville	Alpin
21	Ragnhild Margrethe Aamodt	F	27	163	None	Norway	NOR	2008 Summer	2008	Summer	Beijing	H
22	Andreea Aanei	F	22	170	125	Romania	ROU	2016 Summer	2016	Summer	Rio de Janeiro	Wei
23	Fritz Aanes	M	22	187	89	Norway	NOR	2000 Summer	2000	Summer	Sydney	W
24	Nils Egil Aaness	M	24	None	None	Norway	NOR	1960 Winter	1960	Winter	Squaw Valley	
25	Alf Lied Aanning	M	24	None	None	Norway	NOR	1920 Summer	1920	Summer	Antwerpen	Gym
26	Agnes Erika Aanonsen (-Eyde)	F	17	169	65	Norway	NOR	1984 Winter	1984	Winter	Sarajevo	
27	Johan Aantjes	M	26	None	None	Netherlands	NED	1984 Summer	1984	Summer	Los Angeles	Wa
28	Jan-Erik Aarberg	M	43	170	77	Norway	NOR	1968 Summer	1968	Summer	Mexico City	
29	Willemien Aardenburg	F	22	None	None	Netherlands	NED	1988 Summer	1988	Summer	Seoul	
30	Pepijn Aardewijn	M	26	189	72	Netherlands	NED	1996 Summer	1996	Summer	Atlanta	
31	Evald rma (rman-)	M	24	174	70	Estonia	EST	1936 Summer	1936	Summer	Berlin	A
32	Olav Augunson Aarnes	M	23	None	None	Norway	NOR	1912 Summer	1912	Summer	Stockholm	A
33	Mika Lauri Aarnikka	M	24	187	76	Finland	FIN	1992 Summer	1992	Summer	Barcelona	
34	Jamale (Djamel-)	M	30	187	76	France	FRA	2012 Summer	2012	Summer	London	A

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	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	
	Aarrass (Ahrass-)											
35	Dagfinn Sverre Aarskog	M	24	190	98	Norway	NOR	1998 Winter	1998	Winter	Nagano	Bo
36	Stefan Remco Aartsen	M	21	194	78	Netherlands	NED	1996 Summer	1996	Summer	Atlanta	Sw
37	Ann Kristin Aarnes	F	23	182	64	Norway	NOR	1996 Summer	1996	Summer	Atlanta	
38	Karl Jan Aas	M	20	None	None	Norway	NOR	1920 Summer	1920	Summer	Antwerpen	Gyn
39	Lars Thorlaksn Aas	M	33	None	None	Norway	NOR	1912 Summer	1912	Summer	Stockholm	
40	Roald Edgar Aas	M	23	None	None	Norway	NOR	1952 Winter	1952	Winter	Oslo	
41	Rolf Aas	M	28	None	None	Norway	NOR	1920 Summer	1920	Summer	Antwerpen	
42	Thomas Valentin Aas	M	25	None	None	Taifun	NOR	1912 Summer	1912	Summer	Stockholm	
43	Morten Gjerdrum Aasen	M	34	185	75	Norway	NOR	1992 Summer	1992	Summer	Barcelona	Eques
44	Meelis Aasme	M	25	182	73	Estonia	EST	1998 Winter	1998	Winter	Nagano	Cross
45	Hakon Aasns	M	41	None	None	Norway	NOR	1936 Summer	1936	Summer	Berlin	S
46	Hans Aasns	M	33	194	93	Norway	NOR	1936 Summer	1936	Summer	Berlin	S
47	Erling Rudolf Aastad	M	22	177	74	Norway	NOR	1920 Summer	1920	Summer	Antwerpen	A
48	Abdelhak Aatakni	M	24	None	64	Morocco	MAR	2012 Summer	2012	Summer	London	
49	Moonika Aava	F	24	168	65	Estonia	EST	2004 Summer	2004	Summer	Athina	A
50	Arvi Aavik	M	22	185	106	Estonia	EST	1992 Summer	1992	Summer	Barcelona	W

In [47]:
```
# %%sql
  data set notes='AVG.'
```

```
 * sqlite:///athlete.db
230 rows affected.
```

Out[47]: `[]`

In [51]:
```
# %%sql
# CREATE TABLE joined_data_athlete AS select a.*,n.notes from athlete_data as a left joi
```

```
 * sqlite:///athlete.db
Done.
```

Out[51]: `[]`

In [55]:
```
# %%sql
# select * from joined_data_athlete limit 5
```

```
 * sqlite:///athlete.db
Done.
```

Out[55]:

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	Sport
1	A Dijiang	M	24	180	80	China	CHN	1992 Summer	1992	Summer	Barcelona	Basketball
2	A Lamusi	M	23	170	60	China	CHN	2012 Summer	2012	Summer	London	Judo
3	Gunnar Nielsen Aaby	M	24	None	None	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	Football
4	Edgar Lindenau Aabye	M	34	None	None	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	Tug-Of-War
5	Christine Jacoba Aaftink	F	21	185	82	Netherlands	NED	1988 Winter	1988	Winter	Calgary	Speed Skating

In [15]:
```
athlete_noc_combined_csv=pd.read_csv('/Project/athlete_data.csv',index_col = 0)
```

In [7]:
```
athlete_noc_combined_csv
```

`Out[7]:`

ID	Name	Sex	Age	Height	Weight	Team	NOC	Games	Year	Season	City	
1	A Dijiang	M	24.0	180.0	80.0	China	CHN	1992 Summer	1992	Summer	Barcelona	Bas
2	A Lamusi	M	23.0	170.0	60.0	China	CHN	2012 Summer	2012	Summer	London	
3	Gunnar Nielsen Aaby	M	24.0	NaN	NaN	Denmark	DEN	1920 Summer	1920	Summer	Antwerpen	F
4	Edgar Lindenau Aabye	M	34.0	NaN	NaN	Denmark/Sweden	DEN	1900 Summer	1900	Summer	Paris	T
5	Christine Jacoba Aaftink	F	21.0	185.0	82.0	Netherlands	NED	1988 Winter	1988	Winter	Calgary	S
...	...	...	...	...	...	...	...	...	...	...	...	
135567	Aleksandr Viktorovich Zyuzin	M	24.0	183.0	72.0	Russia	RUS	2000 Summer	2000	Summer	Sydney	F
135568	Olga Igorevna Zyuzkova	F	33.0	171.0	69.0	Belarus	BLR	2016 Summer	2016	Summer	Rio de Janeiro	Bas
135569	Andrzej ya	M	29.0	179.0	89.0	Poland-1	POL	1976 Winter	1976	Winter	Innsbruck	
135570	Piotr ya	M	27.0	176.0	59.0	Poland	POL	2014 Winter	2014	Winter	Sochi	Ju
135571	Tomasz Ireneusz ya	M	30.0	185.0	96.0	Poland	POL	1998 Winter	1998	Winter	Nagano	Bol

135571 rows × 17 columns

`In [12]:`
```python
import matplotlib.pyplot as plt
```

`In [19]:`
```python
athlete_data = pd.read_csv('/Project/athlete_events.csv',index_col = 0)
```

`In [28]:`
```python
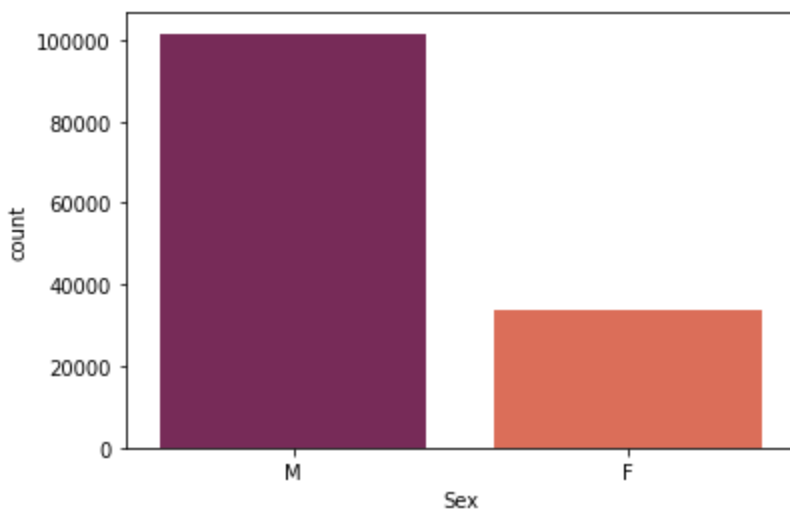# sns.barplot(x="Sex",y="Height",data=athlete_noc_combined_csv,hue="Sex")
# plt.show()
```

`In [43]:`
```python
plt.figure(figsize=(7,7))
sns.countplot(x="Sport",data=athlete_noc_combined_csv,palette="rocket")
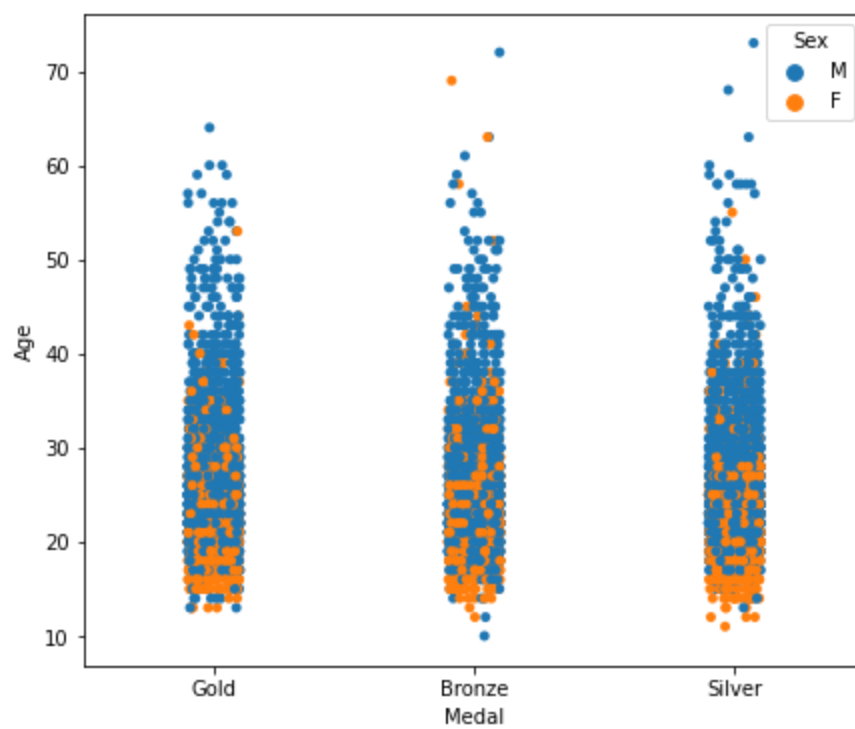```

`Out[43]:` `<AxesSubplot:xlabel='Sport', ylabel='count'>`

Loading [MathJax]/extensions/Safe.js
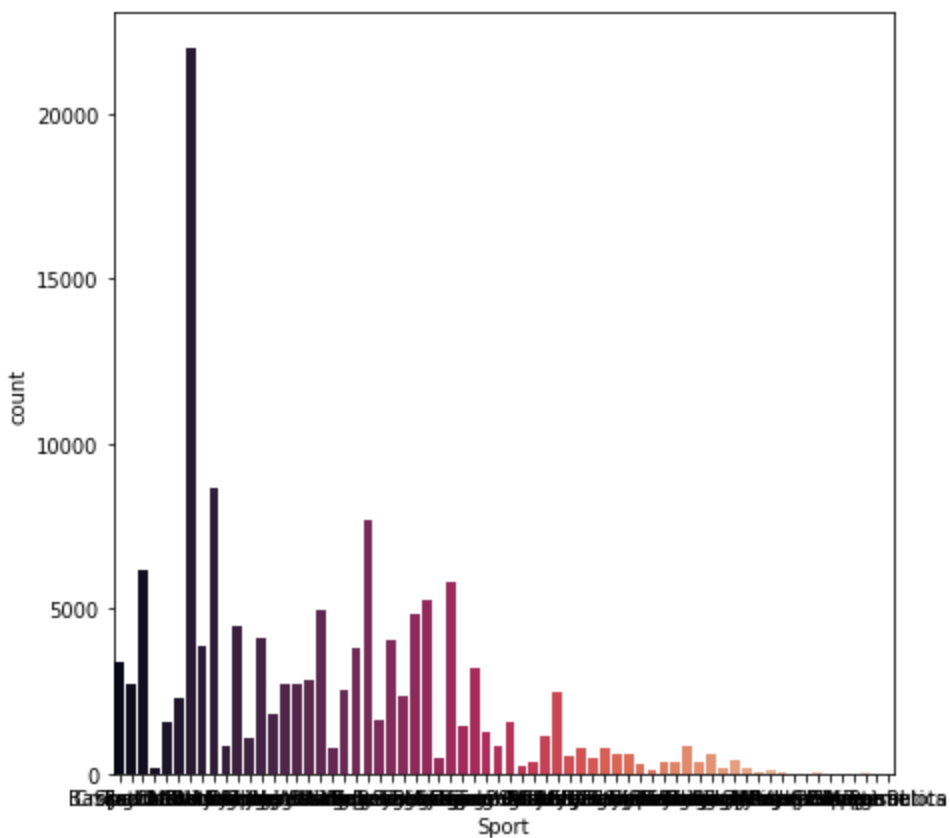
In [35]:
```python
# plt.figure(figsize=(10,11))
sns.countplot(x="Sex",data=athlete_noc_combined_csv,palette="rocket")
```

Out[35]: <AxesSubplot:xlabel='Sex', ylabel='count'>

In [42]:
```python
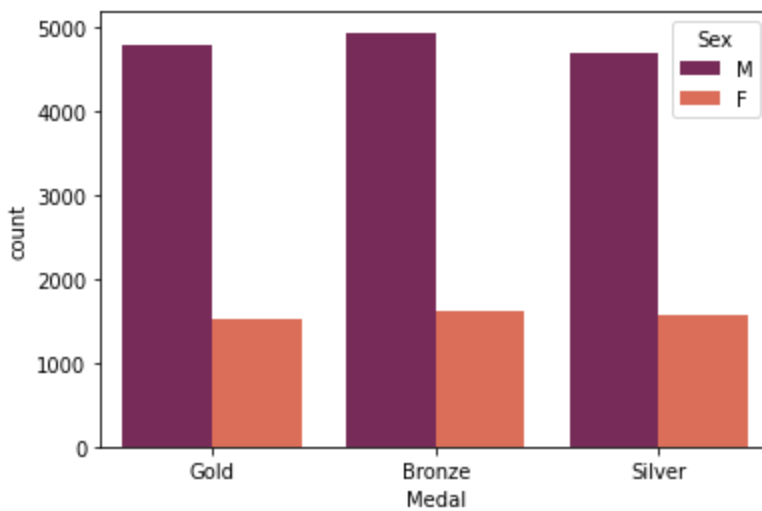plt.figure(figsize=(7,6))
sns.stripplot(x=athlete_noc_combined_csv.Medal,y=athlete_noc_combined_csv.Age,hue=athlet
```

Out[42]: <AxesSubplot:xlabel='Medal', ylabel='Age'>

In [44]: `sns.countplot(x="Medal",data=athlete_noc_combined_csv,hue="Sex",palette="rocket")`

Out[44]: `<AxesSubplot:xlabel='Medal', ylabel='count'>`

In [46]: `sns.pairplot(athlete_noc_combined_csv,hue="Sex")`

Out[46]: `<seaborn.axisgrid.PairGrid at 0x28d6c22fd30>`

In [ ]: