```
In [1]:
         import pandas as pd
         s2017_df = pd.read_csv('2017_season_data.csv')
In [2]:
         players_df = pd.read_csv('player_data.csv')
In [3]:
         s2017_df.head(1)
In [4]:
Out [4]:
                                            G GS
                                                         PER TS%
                                                                             ORB
                                                                                  DRB
              Year
                    Player
                           Pos Age
                                     Tm
                                                     MP
                                                                       FT%
                      Alex
          0 2017.0
                               23.0 OKC 68.0 6.0 1055.0 10.1
                                                               0.56 ... 0.898
                   Abrines
         1 rows × 52 columns
In [5]:
         players_df.head(1)
Out [5]:
                    name year_start year_end position height weight
                                                                     birth_date
                                                                                    college
          O Alaa Abdelnaby
                              1991
                                       1995
                                                F-C
                                                      6-10
                                                            240.0 June 24, 1968 Duke University
```

Data Wrangling Activities

▼ 1. Merge s2017_df and players_df with a left join

```
In [6]: df = s2017_df.merge
  (players_df, how='left', left_on='Player', right_on='name')
```

In [7]: df

| Λ | + | 17 | 1 |
|---|-----|----|---|
| υ | u с | L/ | 1 |
| | | | - |

| | Year | Player | Pos | Age | Tm | G | GS | MP | PER | TS% | PF | PTS | 1 |
|-----|--------|----------------------|-----|------|-----|------|------|--------|------|-------|-----------|-------|--------------|
| 0 | 2017.0 | Alex Abrines | SG | 23.0 | ОКС | 68.0 | 6.0 | 1055.0 | 10.1 | 0.560 | 114.0 | 406.0 | AŁ |
| 1 | 2017.0 | Quincy Acy | PF | 26.0 | TOT | 38.0 | 1.0 | 558.0 | 11.8 | 0.565 | 67.0 | 222.0 | Quinc |
| 2 | 2017.0 | Quincy Acy | PF | 26.0 | DAL | 6.0 | 0.0 | 48.0 | -1.4 | 0.355 | 9.0 | 13.0 | Quinc |
| 3 | 2017.0 | Quincy Acy | PF | 26.0 | BRK | 32.0 | 1.0 | 510.0 | 13.1 | 0.587 | 58.0 | 209.0 | Quinc |
| 4 | 2017.0 | Steven Adams | С | 23.0 | OKC | 80.0 | 80.0 | 2389.0 | 16.5 | 0.589 | 195.0 | 905.0 | S A |
| | | | | | | | | | | | | | |
| 600 | 2017.0 | Cody Zeller | PF | 24.0 | СНО | 62.0 | 58.0 | 1725.0 | 16.7 | 0.604 | 189.0 | 639.0 | Cody |
| 601 | 2017.0 | Tyler Zeller | С | 27.0 | BOS | 51.0 | 5.0 | 525.0 | 13.0 | 0.508 | 61.0 | 178.0 | Tyler |
| 602 | 2017.0 | Stephen Zimmerman | С | 20.0 | ORL | 19.0 | 0.0 | 108.0 | 7.3 | 0.346 | 17.0 | 23.0 | Ste Zimme |
| 603 | 2017.0 | Paul Zipser | SF | 22.0 | СНІ | 44.0 | 18.0 | 843.0 | 6.9 | 0.503 | 78.0 | 240.0 | Paul 2 |
| 604 | 2017.0 | Ivica Zubac | С | 19.0 | LAL | 38.0 | 11.0 | 609.0 | 17.0 | 0.547 | 66.0 | 284.0 | Ivica 2 |

605 rows × 60 columns

In [8]: | df.head(1).T

Out[8]:

| | 0 |
|--------|--------------|
| Year | 2017.0 |
| Player | Alex Abrines |
| Pos | SG |
| Age | 23.0 |
| Tm | OKC |
| G | 68.0 |
| GS | 6.0 |
| MP | 1055.0 |
| PER | 10.1 |
| TS% | 0.56 |
| 3PAr | 0.724 |
| FTr | 0.144 |
| ORB% | 1.9 |
| DRB% | 7.1 |
| TRB% | 4.5 |
| AST% | 5.5 |
| STL% | 1.7 |
| BLK% | 0.6 |
| TOV% | 8.3 |
| USG% | 15.9 |
| blanl | NaN |
| ows | 1.2 |
| DWS | 0.9 |
| ws | 2.1 |
| WS/48 | 0.095 |
| blank2 | NaN |
| ОВРМ | -0.3 |
| DBPM | -2.2 |
| ВРМ | -2.5 |
| VORP | -0.1 |
| FG | 134.0 |
| FGA | 341.0 |
| FG% | 0.393 |
| 3P | 94.0 |

| | 0 |
|------------|----------------|
| ЗРА | 247.0 |
| 3P% | 0.381 |
| 2P | 40.0 |
| 2PA | 94.0 |
| 2P% | 0.426 |
| eFG% | 0.531 |
| FT | 44.0 |
| FTA | 49.0 |
| FT% | 0.898 |
| ORB | 18.0 |
| DRB | 68.0 |
| TRB | 86.0 |
| AST | 40.0 |
| STL | 37.0 |
| BLK | 8.0 |
| TOV | 33.0 |
| PF | 114.0 |
| PTS | 406.0 |
| name | Alex Abrines |
| year_start | 2017.0 |
| year_end | 2018.0 |
| position | G-F |
| height | 6-6 |
| weight | 190.0 |
| birth_date | August 1, 1993 |
| college | NaN |

```
In []: # Use it before modifying the `df` to have a copy
# just in case a modification doesn't go as expected
# df_copy = df.copy()
```

▼ 2. Are there misses (mismatches) in the resulting dataframe?

```
In [10]: df['name'].isna().any()
Out[10]: True
```

3. How many rows couldn't be matched?

4. Extract the names of the players that couldn't be matched

```
In [14]: filt = df['name'].isna()
df[filt]
```

Out[14]:

| | Year | Player | Pos | Age | Tm | G | GS | MP | PER | TS% | PF | PTS | name |
|-----|--------|----------------------|-----|------|-----|------|------|--------|------|-------|-----------|-------|------|
| 349 | 2017.0 | Luc Mbah | SF | 30.0 | LAC | 80.0 | 76.0 | 1787.0 | 10.3 | 0.581 | 122.0 | 484.0 | NaN |
| 350 | 2017.0 | James Michael | PF | 24.0 | GSW | 52.0 | 2.0 | 457.0 | 13.0 | 0.543 | 47.0 | 147.0 | NaN |
| 352 | 2017.0 | Sheldon McClellan | SG | 24.0 | WAS | 30.0 | 3.0 | 287.0 | 10.1 | 0.518 | 17.0 | 90.0 | NaN |
| 593 | 2017.0 | Metta World | SF | 37.0 | LAL | 25.0 | 2.0 | 160.0 | 6.2 | 0.380 | 18.0 | 57.0 | NaN |

4 rows × 60 columns

```
In [15]: player_misses = list(df.loc[filt, 'Player'].values)
player_misses
```

Out[15]: ['Luc Mbah', 'James Michael', 'Sheldon McClellan', 'Metta World']

▼ 5. Modify players_df with the correct names to re-try a successful merge

```
In [ ]: # Use it before modifying the `df` to have a copy
# just in case a modification doesn't go as expected
# df_copy = df.copy()
```

```
In [20]: filt = players_df['name'].str.contains('Luc Mbah')
players_df[filt]
```

Out [20]:

```
name year_start year_end position height weight
                                                                     birth date
                                                                                           college
                                                                                       University of
       Luc Mbah
                                                                  September 9,
2595
                       2009
                                 2018
                                              F
                                                    6-8
                                                           230.0
                                                                                     California, Los
        a Moute
                                                                          1986
                                                                                           Angeles
```

```
In [21]: names_mapping = {
    "Luc Mbah a Moute": "Luc Mbah",
    "James Michael McAdoo": "James Michael",
    "Sheldon Mac": "Sheldon McClellan",
    "Metta World Peace": "Metta World",
}
```

```
In [22]: for original_name, new_name in names_mapping.items():
    filt = players_df['name'] == original_name
    players_df.loc[filt, 'name'] = new_name
```

```
In [24]: df =
    s2017_df.merge(players_df, how='left', left_on='Player', right_on='name'
```

In [25]: df

Out[25]:

| | Year | Player | Pos | Age | Tm | G | GS | MP | PER | TS% | PF | PTS | ı |
|-------|---------|----------------------|-----|------|-----|------|------|--------|------|-------|-----------|-------|--------------|
| 0 | 2017.0 | Alex Abrines | SG | 23.0 | OKC | 68.0 | 6.0 | 1055.0 | 10.1 | 0.560 | 114.0 | 406.0 | Ak |
| 1 | 2017.0 | Quincy Acy | PF | 26.0 | тот | 38.0 | 1.0 | 558.0 | 11.8 | 0.565 | 67.0 | 222.0 | Quinc |
| 2 | 2017.0 | Quincy Acy | PF | 26.0 | DAL | 6.0 | 0.0 | 48.0 | -1.4 | 0.355 | 9.0 | 13.0 | Quinc |
| 3 | 2017.0 | Quincy Acy | PF | 26.0 | BRK | 32.0 | 1.0 | 510.0 | 13.1 | 0.587 | 58.0 | 209.0 | Quinc |
| 4 | 2017.0 | Steven Adams | С | 23.0 | OKC | 80.0 | 80.0 | 2389.0 | 16.5 | 0.589 | 195.0 | 905.0 | S A |
| | | | | | | | | | | | | | |
| 600 | 2017.0 | Cody Zeller | PF | 24.0 | СНО | 62.0 | 58.0 | 1725.0 | 16.7 | 0.604 | 189.0 | 639.0 | Cody |
| 601 | 2017.0 | Tyler Zeller | С | 27.0 | BOS | 51.0 | 5.0 | 525.0 | 13.0 | 0.508 | 61.0 | 178.0 | Tyler |
| 602 | 2017.0 | Stephen Zimmerman | С | 20.0 | ORL | 19.0 | 0.0 | 108.0 | 7.3 | 0.346 | 17.0 | 23.0 | Ste Zimme |
| 603 | 2017.0 | Paul Zipser | SF | 22.0 | CHI | 44.0 | 18.0 | 843.0 | 6.9 | 0.503 | 78.0 | 240.0 | Paul Z |
| 604 | 2017.0 | Ivica Zubac | С | 19.0 | LAL | 38.0 | 11.0 | 609.0 | 17.0 | 0.547 | 66.0 | 284.0 | Ivica Z |
| 605 r | ows × 6 | 0 columns | | | | | | | | | | | |

In [26]: df['name'].isna().sum()

Out[26]: 0

6. Perform the merge between s2017_df and players_df again, this time, without misses

In []:

7. Remove unnecessary columns

```
In [28]: columns_to_drop = [
              "Year",
              "PER",
              "TS%",
              "3PAr",
              "FTr",
              "USG%",
              "blanl",
              "OWS",
              "DWS",
              "WS",
              "WS/48",
              "blank2",
              "OBPM",
              "DBPM",
              "BPM",
              "VORP",
              "FG%",
              "3P%",
              "eFG%",
              "FT%",
              "name",
          ]
```

In [29]: df.drop(columns=columns_to_drop, inplace=True)

▼ 8. Rename teams to their full name

```
In [32]: |team_mapping = {
             "OKC": "Oklahoma City Thunder",
             "DAL": "Dallas Mavericks",
             "BRK": "Brooklyn Nets",
             "SAC": "Sacramento Kings",
             "NOP": "New Orleans Pelicans",
             "MIN": "Minnesota Timberwolves",
             "SAS": "San Antonio Spurs",
             "IND": "Indiana Pacers",
             "MEM": "Memphis Grizzlies",
             "POR": "Portland Trail Blazers",
             "CLE": "Cleveland Cavaliers",
             "LAC": "Los Angeles Clippers",
             "PHI": "Philadelphia 76ers",
             "HOU": "Houston Rockets",
             "MIL": "Milwaukee Bucks",
             "NYK": "New York Knicks"
             "DEN": "Denver Nuggets",
             "ORL": "Orlando Magic",
             "MIA": "Miami Heat",
             "PHO": "Phoenix Suns",
             "GSW": "Golden State Warriors",
             "CHO": "Charlotte Hornets",
             "DET": "Detroit Pistons",
             "ATL": "Atlanta Hawks",
             "WAS": "Washington Wizards",
             "LAL": "Los Angeles Lakers",
             "UTA": "Utah Jazz",
             "BOS": "Boston Celtics",
             "CHI": "Chicago Bulls",
             "TOR": "Toronto Raptors"
```

```
In [35]: df['Team'] = df['Tm'].replace(team_mapping)
```

```
In [36]: df[['Player', 'Tm', 'Team']]
```

Out[36]:

| | Player | Tm | Team |
|-----|-------------------|-----|-----------------------|
| 0 | Alex Abrines | OKC | Oklahoma City Thunder |
| 1 | Quincy Acy | TOT | ТОТ |
| 2 | Quincy Acy | DAL | Dallas Mavericks |
| 3 | Quincy Acy | BRK | Brooklyn Nets |
| 4 | Steven Adams | OKC | Oklahoma City Thunder |
| | | | |
| 600 | Cody Zeller | СНО | Charlotte Hornets |
| 601 | Tyler Zeller | BOS | Boston Celtics |
| 602 | Stephen Zimmerman | ORL | Orlando Magic |
| 603 | Paul Zipser | CHI | Chicago Bulls |
| 604 | Ivica Zubac | LAL | Los Angeles Lakers |
| | | | |

605 rows × 3 columns

9. Convert birthday to a datetime object

```
In [37]: df['birth_date'] = pd.to_datetime(df['birth_date'])
In [38]: |df['birth_date']
Out[38]: 0
                1993-08-01
         1
                1990-10-06
         2
                1990-10-06
         3
                1990-10-06
                1993-07-20
         600
                1992-10-05
         601
                1990-01-17
         602
                1996-09-09
                1994-02-18
         603
                1997-03-18
         Name: birth_date, Length: 605, dtype: datetime64[ns]
```

▼ 10. Delete all players from the T0T team

```
In []: # if something goes wrong, just execute this line:
    # df = df_copy.copy()
In [40]: #df_copy = df.copy()
```

```
In [42]: | filt = df['Tm'] == 'TOT'
         df.loc[filt].index
Out[42]: Index([ 1, 14, 32,
                                55,
                                     58,
                                          65,
                                               70.
                                                    81,
                                                         90, 107, 110, 139, 140,
         153,
                156, 166, 176, 188, 193, 200, 226, 236, 239, 259, 263, 278, 294,
         306.
                314, 328, 355, 358, 361, 383, 401, 405, 411, 415, 435, 443, 446,
         458,
                476, 492, 509, 517, 527, 535, 539, 563, 574, 577, 580, 586],
               dtype='int64')
In [43]: df.drop(df.loc[filt].index, inplace=True)
```

Analysis

▼ 11. What's the team with the most players in the league?

```
In [50]: df.groupby('Team')['Player'].count().sort values(ascending=False)
Out[50]: Team
         New Orleans Pelicans
                                     27
         Dallas Mavericks
                                     24
         Atlanta Hawks
                                     22
         Cleveland Cavaliers
                                     22
         Philadelphia 76ers
                                     22
         Brooklyn Nets
                                     21
         Milwaukee Bucks
                                     20
         Charlotte Hornets
                                     19
         Sacramento Kings
                                     19
         Denver Nuggets
                                     19
         Orlando Magic
                                     19
         Oklahoma City Thunder
                                     19
         Los Angeles Lakers
                                     19
         Phoenix Suns
                                     18
         Washington Wizards
                                     18
         Houston Rockets
                                     18
         Chicago Bulls
                                     18
         Memphis Grizzlies
                                     17
         Indiana Pacers
                                     17
         Golden State Warriors
                                     17
         San Antonio Spurs
                                     17
         Toronto Raptors
                                     17
         Minnesota Timberwolves
                                     16
         New York Knicks
                                     16
         Boston Celtics
                                     15
         Los Angeles Clippers
                                     15
         Detroit Pistons
                                     15
         Portland Trail Blazers
                                     15
         Utah Jazz
                                     15
         Miami Heat
                                     15
         Name: Player, dtype: int64
```

In [51]: df['Team'].value_counts()

Out[51]: Team

New Orleans Pelicans 27 Dallas Mavericks 24 Cleveland Cavaliers 22 Philadelphia 76ers 22 Atlanta Hawks 22 Brooklyn Nets 21 Milwaukee Bucks 20 Oklahoma City Thunder 19 Denver Nuggets 19 Charlotte Hornets 19 Los Angeles Lakers 19 Sacramento Kings 19 19 Orlando Magic Phoenix Suns 18 Washington Wizards 18 Houston Rockets 18 Chicago Bulls 18 Golden State Warriors 17 Toronto Raptors 17 Memphis Grizzlies 17 Indiana Pacers 17 San Antonio Spurs 17 Minnesota Timberwolves 16 New York Knicks 16 Miami Heat 15 Los Angeles Clippers 15 Portland Trail Blazers 15 Detroit Pistons 15 15 Utah Jazz Boston Celtics 15 Name: count, dtype: int64

12. What's the team with the lowest FG?

In [58]: df.groupby('Team')['FG'].sum().sort_values()

| 0+ | [[[] | l. . |
|-----|---------|-------------|
| 0ut | [DØ] | : Team |

| ream | |
|--------------------------|--------|
| Dallas Mavericks | 2968.0 |
| Memphis Grizzlies | 2984.0 |
| Utah Jazz | 3033.0 |
| Charlotte Hornets | 3093.0 |
| Brooklyn Nets | 3102.0 |
| Sacramento Kings | 3105.0 |
| Orlando Magic | 3139.0 |
| Boston Celtics | 3168.0 |
| Chicago Bulls | 3169.0 |
| Milwaukee Bucks | 3190.0 |
| Miami Heat | 3202.0 |
| Toronto Raptors | 3211.0 |
| New Orleans Pelicans | 3218.0 |
| Minnesota Timberwolves | 3235.0 |
| Oklahoma City Thunder | 3237.0 |
| Los Angeles Clippers | 3242.0 |
| Portland Trail Blazers | 3243.0 |
| New York Knicks | 3244.0 |
| Detroit Pistons | 3269.0 |
| Phoenix Suns | 3270.0 |
| Houston Rockets | 3305.0 |
| Cleveland Cavaliers | 3311.0 |
| Philadelphia 76ers | 3322.0 |
| Denver Nuggets | 3377.0 |
| Indiana Pacers | 3379.0 |
| Washington Wizards | 3388.0 |
| Los Angeles Lakers | 3414.0 |
| San Antonio Spurs | 3470.0 |
| Golden State Warriors | 3532.0 |
| Atlanta Hawks | 3595.0 |
| Name: FG, dtype: float64 | |

13. What's the team with the best FG%?

In [62]: fg_per_team = df.groupby('Team')[['FG', 'FGA']].sum()
fg_per_team

Out[62]:

| | FG | FGA |
|------------------------|--------|--------|
| Team | | |
| Atlanta Hawks | 3595.0 | 7961.0 |
| Boston Celtics | 3168.0 | 6978.0 |
| Brooklyn Nets | 3102.0 | 6987.0 |
| Charlotte Hornets | 3093.0 | 7000.0 |
| Chicago Bulls | 3169.0 | 7142.0 |
| Cleveland Cavaliers | 3311.0 | 7053.0 |
| Dallas Mavericks | 2968.0 | 6750.0 |
| Denver Nuggets | 3377.0 | 7194.0 |
| Detroit Pistons | 3269.0 | 7282.0 |
| Golden State Warriors | 3532.0 | 7140.0 |
| Houston Rockets | 3305.0 | 7152.0 |
| Indiana Pacers | 3379.0 | 7270.0 |
| Los Angeles Clippers | 3242.0 | 6819.0 |
| Los Angeles Lakers | 3414.0 | 7525.0 |
| Memphis Grizzlies | 2984.0 | 6854.0 |
| Miami Heat | 3202.0 | 7037.0 |
| Milwaukee Bucks | 3190.0 | 6737.0 |
| Minnesota Timberwolves | 3235.0 | 6922.0 |
| New Orleans Pelicans | 3218.0 | 7154.0 |
| New York Knicks | 3244.0 | 7255.0 |
| Oklahoma City Thunder | 3237.0 | 7169.0 |
| Orlando Magic | 3139.0 | 7133.0 |
| Philadelphia 76ers | 3322.0 | 7545.0 |
| Phoenix Suns | 3270.0 | 7260.0 |
| Portland Trail Blazers | 3243.0 | 7059.0 |
| Sacramento Kings | 3105.0 | 6735.0 |
| San Antonio Spurs | 3470.0 | 7284.0 |
| Toronto Raptors | 3211.0 | 6918.0 |
| Utah Jazz | 3033.0 | 6514.0 |
| Washington Wizards | 3388.0 | 7136.0 |
| | | |

In [63]: fg_per_team['FG%'] = fg_per_team['FG'] / fg_per_team['FGA']
fg_per_team.sort_values(by='FG%', ascending=False)

Out[63]:

| | FG | FGA | FG% |
|------------------------|--------|--------|----------|
| Team | | | |
| Golden State Warriors | 3532.0 | 7140.0 | 0.494678 |
| San Antonio Spurs | 3470.0 | 7284.0 | 0.476387 |
| Los Angeles Clippers | 3242.0 | 6819.0 | 0.475436 |
| Washington Wizards | 3388.0 | 7136.0 | 0.474776 |
| Milwaukee Bucks | 3190.0 | 6737.0 | 0.473505 |
| Cleveland Cavaliers | 3311.0 | 7053.0 | 0.469446 |
| Denver Nuggets | 3377.0 | 7194.0 | 0.469419 |
| Minnesota Timberwolves | 3235.0 | 6922.0 | 0.467350 |
| Utah Jazz | 3033.0 | 6514.0 | 0.465613 |
| Indiana Pacers | 3379.0 | 7270.0 | 0.464787 |
| Toronto Raptors | 3211.0 | 6918.0 | 0.464151 |
| Houston Rockets | 3305.0 | 7152.0 | 0.462109 |
| Sacramento Kings | 3105.0 | 6735.0 | 0.461024 |
| Portland Trail Blazers | 3243.0 | 7059.0 | 0.459414 |
| Miami Heat | 3202.0 | 7037.0 | 0.455023 |
| Boston Celtics | 3168.0 | 6978.0 | 0.453998 |
| Los Angeles Lakers | 3414.0 | 7525.0 | 0.453688 |
| Atlanta Hawks | 3595.0 | 7961.0 | 0.451576 |
| Oklahoma City Thunder | 3237.0 | 7169.0 | 0.451527 |
| Phoenix Suns | 3270.0 | 7260.0 | 0.450413 |
| New Orleans Pelicans | 3218.0 | 7154.0 | 0.449818 |
| Detroit Pistons | 3269.0 | 7282.0 | 0.448915 |
| New York Knicks | 3244.0 | 7255.0 | 0.447140 |
| Brooklyn Nets | 3102.0 | 6987.0 | 0.443967 |
| Chicago Bulls | 3169.0 | 7142.0 | 0.443713 |
| Charlotte Hornets | 3093.0 | 7000.0 | 0.441857 |
| Philadelphia 76ers | 3322.0 | 7545.0 | 0.440292 |
| Orlando Magic | 3139.0 | 7133.0 | 0.440067 |
| Dallas Mavericks | 2968.0 | 6750.0 | 0.439704 |
| Memphis Grizzlies | 2984.0 | 6854.0 | 0.435366 |

■ 14. What's the difference between the best and worst 3P shooters (by position)?

```
In [68]:
          three_point = df.groupby(by='Pos')[['3P', '3PA']].sum()
          three_point['3P%'] = three_point['3P'] / three_point['3PA']
          three_point
Out[68]:
                  3P
                        3PA
                                3P%
           Pos
            C 1486.0
                      4210.0 0.352969
            PF 3514.0 10210.0 0.344172
           PG 5662.0 15761.0 0.359241
            SF 5638.0 16043.0 0.351431
           SG 7776.0 21106.0 0.368426
          three_point.sort_values(by='3P%', ascending=False)
In [70]:
Out[70]:
                  3P
                        3PA
                                3P%
           Pos
           SG 7776.0 21106.0 0.368426
           PG 5662.0 15761.0 0.359241
            C 1486.0
                      4210.0 0.352969
            SF 5638.0 16043.0 0.351431
            PF 3514.0 10210.0 0.344172
In [80]: | three_point['3P%'].max() - three_point['3P%'].min()
Out[80]: 0.024253659969040164
```

▼ 15. Find the best scorers in each team

In [77]: df

Out[77]:

| | Player | Pos | Age | Tm | G | GS | MP | ORB% | DRB% | TRB% | PF | PTS | уе |
|-----|----------------------|-----|------|-----|------|------|--------|------|------|------|-----------|-------|----|
| 0 | Alex Abrines | SG | 23.0 | OKC | 68.0 | 6.0 | 1055.0 | 1.9 | 7.1 | 4.5 | 114.0 | 406.0 | |
| 2 | Quincy Acy | PF | 26.0 | DAL | 6.0 | 0.0 | 48.0 | 4.6 | 15.2 | 9.7 | 9.0 | 13.0 | |
| 3 | Quincy Acy | PF | 26.0 | BRK | 32.0 | 1.0 | 510.0 | 3.8 | 18.2 | 11.1 | 58.0 | 209.0 | |
| 4 | Steven Adams | С | 23.0 | OKC | 80.0 | 80.0 | 2389.0 | 13.0 | 15.5 | 14.2 | 195.0 | 905.0 | |
| 5 | Arron Afflalo | SG | 31.0 | SAC | 61.0 | 45.0 | 1580.0 | 0.7 | 8.4 | 4.6 | 104.0 | 515.0 | |
| | | | | | | | | | | | | | |
| 600 | Cody Zeller | PF | 24.0 | СНО | 62.0 | 58.0 | 1725.0 | 8.6 | 17.3 | 12.9 | 189.0 | 639.0 | |
| 601 | Tyler Zeller | С | 27.0 | BOS | 51.0 | 5.0 | 525.0 | 9.2 | 17.0 | 13.2 | 61.0 | 178.0 | |
| 602 | Stephen Zimmerman | С | 20.0 | ORL | 19.0 | 0.0 | 108.0 | 10.8 | 24.9 | 17.6 | 17.0 | 23.0 | |
| 603 | Paul Zipser | SF | 22.0 | CHI | 44.0 | 18.0 | 843.0 | 1.9 | 14.2 | 8.0 | 78.0 | 240.0 | |
| 604 | Ivica Zubac | С | 19.0 | LAL | 38.0 | 11.0 | 609.0 | 7.1 | 21.9 | 14.3 | 66.0 | 284.0 | |

551 rows × 40 columns

In [99]: df['Best Score per Team'] = df.groupby('Team')['PTS'].transform('max')

Out[110]:

| | Player | Team | Pos | PTS |
|-----|-----------------------|------------------------|-----|--------|
| 567 | Russell Westbrook | Oklahoma City Thunder | PG | 2558.0 |
| 214 | James Harden | Houston Rockets | PG | 2356.0 |
| 525 | Isaiah Thomas | Boston Celtics | PG | 2199.0 |
| 122 | Anthony Davis | New Orleans Pelicans | С | 2099.0 |
| 538 | Karl-Anthony Towns | Minnesota Timberwolves | С | 2061.0 |
| 331 | Damian Lillard | Portland Trail Blazers | PG | 2024.0 |
| 130 | DeMar DeRozan | Toronto Raptors | SG | 2020.0 |
| 120 | Stephen Curry | Golden State Warriors | PG | 1999.0 |
| 274 | LeBron James | Cleveland Cavaliers | SF | 1954.0 |
| 324 | Kawhi Leonard | San Antonio Spurs | SF | 1888.0 |
| 19 | Giannis Antetokounmpo | Milwaukee Bucks | SF | 1832.0 |
| 558 | Kemba Walker | Charlotte Hornets | PG | 1830.0 |
| 79 | Jimmy Butler | Chicago Bulls | SF | 1816.0 |
| 559 | John Wall | Washington Wizards | PG | 1805.0 |
| 185 | Paul George | Indiana Pacers | SF | 1775.0 |
| 62 | Devin Booker | Phoenix Suns | SG | 1726.0 |
| 20 | Carmelo Anthony | New York Knicks | SF | 1659.0 |
| 229 | Gordon Hayward | Utah Jazz | SF | 1601.0 |
| 336 | Brook Lopez | Brooklyn Nets | С | 1539.0 |
| 111 | DeMarcus Cousins | Sacramento Kings | С | 1528.0 |
| 31 | Harrison Barnes | Dallas Mavericks | PF | 1518.0 |
| 136 | Goran Dragic | Miami Heat | PG | 1483.0 |
| 180 | Marc Gasol | Memphis Grizzlies | С | 1446.0 |
| 488 | Dennis Schroder | Atlanta Hawks | PG | 1414.0 |
| 222 | Tobias Harris | Detroit Pistons | PF | 1321.0 |
| 209 | Blake Griffin | Los Angeles Clippers | PF | 1316.0 |
| 289 | Nikola Jokic | Denver Nuggets | С | 1221.0 |
| 101 | Jordan Clarkson | Los Angeles Lakers | SG | 1205.0 |
| 171 | Evan Fournier | Orlando Magic | SG | 1167.0 |
| 486 | Dario Saric | Philadelphia 76ers | PF | 1040.0 |
| | | | | |

▼ 16. Which team has the 'youngest squad', by average player age?

In [84]: df.groupby(by='Team')['Age'].mean().sort_values()

Out[84]: Team

| I Calli | |
|---------------------------|-----------|
| Portland Trail Blazers | 24.333333 |
| Philadelphia 76ers | 24.909091 |
| Toronto Raptors | 25.117647 |
| Boston Celtics | 25.266667 |
| Detroit Pistons | 25.466667 |
| Orlando Magic | 25.473684 |
| Denver Nuggets | 25.473684 |
| Washington Wizards | 25.666667 |
| Phoenix Suns | 25.666667 |
| Minnesota Timberwolves | 25.687500 |
| Charlotte Hornets | 25.789474 |
| Brooklyn Nets | 25.809524 |
| Chicago Bulls | 25.888889 |
| Milwaukee Bucks | 25.900000 |
| Oklahoma City Thunder | 25.947368 |
| New Orleans Pelicans | 25.962963 |
| Houston Rockets | 26.000000 |
| Utah Jazz | 26.200000 |
| Los Angeles Lakers | 26.578947 |
| Miami Heat | 26.600000 |
| New York Knicks | 26.625000 |
| Indiana Pacers | 26.705882 |
| Sacramento Kings | 26.736842 |
| Dallas Mavericks | 26.750000 |
| Memphis Grizzlies | 27.235294 |
| Golden State Warriors | 27.882353 |
| Atlanta Hawks | 28.363636 |
| San Antonio Spurs | 29.000000 |
| Los Angeles Clippers | 29.533333 |
| Cleveland Cavaliers | 30.318182 |
| Name: Age, dtype: float64 | |
| | |