Database Generation

1) The Majority of database population is of small-medium size, between 5 and 20 entries, since the NBA is composed of a medium number of teams, with each team having five players and staff. The only tables with a large population of 90-155 are player and employee tables. other tables have been populated with a small size since some services are limited to a small number of providers, or organizations may not want many different services.

2) A list of all relational tables in the database with their respective sizes:
   · NBA with 7 entries
   · Franchise with 19 entries
   · Employee with 155 entries
   · Player with 90 entries
   · Coach with 18 entries
   · Staff with 20 entries
   · Owner with 18 entries
   · Referee with 9 entries
   · BroadcastTeam with 18 entries
   · Company with 18 entries
   · Sponsors with 18 entries
   · Service with 7 entries
   · SeasonTicket with 7 entries
   · SeasonPass with 8 entries
   · StreamingService with 6 entries
   · Seasons with 13 entries

3) The data was first typed in CSV (comma-separated values) inside a Word document that would later be inputted into SQLite with the CSV mode. This simplified the creation of separate scripts for each table since all was done in a single file. We used real player, coach, and owner names by just googling the nba teams. All other references to companies and services were picked randomly with no real significance to real life.

Here is the CSV-typed data we used:

```
TaxID
1
2
3
4
5
6
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```
city,state,numChampionships,teamName,FKNBA
Los Angeles,CA,3,Lakers,1
San Francisco,CA,7,Warriors,1
Dallas,TX,4,Mavericks,1
Chicago,IL,6,Bulls,1
Philadelphia,PA,0,76ers,1
Boston,MA,1,Celtics,1
New York,NY,1,Knicks,1
Brooklyn,NY,0,Nets,1
Cleveland,OH,3,Cavaliers,1
Houston,TX,0,Rockets,1
San Antonio,TX,2,Spurs,1
Salt Lake City,UT,0,Jazz,1
Milwaukee,WI,0,Bucks,1
Indianapolis,IN,0,Pacers,1
Denver,CO,2,Nuggets,1
Portland,OR,0,Trailblazers,1
Miami,FL,2,Heat,1
Phoenix,AZ,0,Suns,1
N/A,N/A,0,NBA,1

employeeID,dateOfBirth,firstName,lastName,sex,FKNBATaxID,FKTeam
1,1999-02-28,Luka,Doncic,male,1,Mavericks
2,1992-03-23,Kyrie,Irving,male,1,Mavericks
3,2000-02-11,Josh,Green,male,1,Mavericks
4,1998-05-04,Grant,Williams,male,1,Mavericks
5,1991-10-17,Dwight,Powell,male,1,Mavericks
6,1959-07-31,Mark,Cuban,male,1,Mavericks
7,1997-02-11,Joshua,Velasquez,male,1,Mavericks
8,1973-01-20,Jason,Kidd,male,1,Mavericks
9,1998-02-14,Lisa,Cari,female,1,Mavericks
10,1983-07-27,Zack,LaVine,male,1,Bulls
11,1982-04-14,DeMar,DeRozan,male,1,Bulls
12,1982-02-16,Coby,White,male,1,Bulls
13,1980-03-23,Lonzo,Ball,male,1,Bulls
14,1990-01-20,Nikola,Vucevic,male,1,Bulls
15,1936-09-17,Jerry,Reinsdorf,male,1,Bulls
16,1965-07-20,Billy,Donovan,male,1,Bulls
17,1991-01-20,Jennifer,Smith,female,1,Bulls
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18,1984-12-30,LeBron,James,male,1,Lakers
19,1980-01-21,Anthony,Davis,male,1,Lakers
20,1985-05-10,Gabe,Vincent,male,1,Lakers
21,1992-07-20,D'Angelo,Russell,male,1,Lakers
22,1990-01-31,Colin,Castleton,male,1,Lakers
23,1995-11-13,John,Jones,male,1,Lakers
24,1994-10-12,Anna,Mejia,female,1,Lakers
25,1973-03-17,Darvin,Ham,male,1,Lakers
26,1956-12-02,Johnny,Buss,male,1,Lakers
27,2000-02-28,Tyrese,Haliburton,male,1,Pacers
28,2001-06-19,Bennedict,Mathurin,male,1,Pacers
29,1998-03-04,Obi,Toppin,male,1,Pacers
30,2000-01-16,Andrew,Nembhard,male,1,Pacers
31,1992-12-17,Myles,Turner,male,1,Pacers
32,1994-02-22,Devonte,Graham,male,1,Spurs
33,2000-05-24,Keldon,Johnson,male,1,Spurs
34,2002-05-20,Jeremy,Sochan,male,1,Spurs
35,1998-11-04,Victor,Wembanyama,male,1,Spurs
36,1999-10-28,Charles,Bediako,male,1,Spurs
37,1994-08-25,Caris,LeVert,male,1,Cavaliers
38,1996-05-15,sam,Merrill,male,1,Cavaliers
39,1999-09-24,Isaiah,Mobley,male,1,Cavaliers
40,1993-06-17,Damian,Jones,male,1,Cavaliers
41,2000-01-26,Darius,Garland,male,1,Cavaliers
42,1988-03-14,Stephen,Curry,male,1,Warriors
43,1986-06-30,Klay,Thompson,male,1,Warriors
44,2001-11-18,Andrew,Wiggins,male,1,Warriors
45,1991-04-07,Chris,Paul,male,1,Warriors
46,1990-10-28,Draymon,Green,male,1,Warriors
47,1981-04-15,Giannis,Antetokounmpo,male,1,Bucks
48,1990-08-31,Damian,Lillard,male,1,Bucks
49,2000-12-04,Jae,Crowder,male,1,Bucks
50,1991-08-11,Robin,Lopez,male,1,Bucks
51,1982-02-28,Andre,Jackson,male,1,Bucks
52,1985-07-22,Joel,Embiid,male,1,76ers
53,1989-09-34,Tyrese,Maxey,male,1,76ers
54,2002-05-10,Robert,Covington,male,1,76ers
55,1989-04-07,Patrick,Beverley,male,1,76ers
56,1984-02-13,Mo,Bamba,male,1,76ers
57,1987-07-30,Jayson,Tatum,male,1,Celtics
58,1983-01-03,Kristaps,Porzingis,male,1,Celtics
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59,1999-02-20,Jrue,Holiday,male,1,Celtics
60,1995-04-19,Derrick,White,male,1,Celtics
61,1990-09-21,Luke,Kornet,male,1,Celtics
62,1980-05-12,Jalen,Brunson,male,1,Knicks
63,1982-07-17,Julius,Randle,male,1,Knicks
64,1997-11-20,Evan,Fournier,male,1,Knicks
65,1996-06-29,Donte,DiVincenzo,male,1,Knicks
66,1993-08-14,Isaiah,Hartenstein,male,1,Knicks
67,1996-10-04,Ben,Simmons,male,1,Nets
68,1987-01-25,Mikal,Bridges,male,1,Nets
69,1998-06-26,Cam,Thomas,male,1,Nets
70,1996-03-27,Cameron,Johnson,male,1,Nets
71,1992-09-23,Nic,Claxton,male,1,Nets
72,1981-03-16,Jalen,Green,male,1,Rockets
73,1993-05-24,Dillon,Brooks,male,1,Rockets
74,1994-08-21,Alperen,Sengun,male,1,Rockets
75,1997-03-08,Fred,VanVleet,male,1,Rockets
76,1995-04-26,Amen,Thompson,male,1,Rockets
77,1984-08-12,Lauri,Markkanen,male,1,Jazz
78,1986-04-08,Jordan,Clarkson,male,1,Jazz
79,1992-06-15,John,Collins,male,1,Jazz
80,1993-03-16,Omer,Yurtseven,male,1,Jazz
81,1990-01-24,Keyonte,George,male,1,Jazz
82,2001-07-01,Nikola,Jokic,male,1,Nuggets
83,1983-04-09,Jamal,Murray,male,1,Nuggets
84,1994-02-22,Michael,Porter,male,1,Nuggets
85,1995-05-04,Aaron,Gordon,male,1,Nuggets
86,1990-05-25,Julian,Strawther,male,1,Nuggets
87,2000-06-15,Scoot,Henderson,male,1,Trailblazers
88,2001-03-13,Deandre,Ayton,male,1,Trailblazers
89,1999-08-18,Jerami,Grant,male,1,Trailblazers
90,1996-10-29,Kris,Murray,male,1,Trailblazers
91,1998-10-21,Malcolm,Brogdon,male,1,Trailblazers
92,1988-04-25,Jimmy,Butler,male,1,Heat
93,1993-03-19,Tyler,Herro,male,1,Heat
94,1995-02-27,Jaime,Jaquez,male,1,Heat
95,1997-01-14,Nikola,Jovic,male,1,Heat
96,1994-05-27,Bam,Adebayo,male,1,Heat
97,2000-05-30,Devin,Booker,male,1,Suns
98,2000-03-18,Kevin,Durant,male,1,Suns
99,1996-03-27,Bradley,Beal,male,1,Suns
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100,1995-07-14,Jusuf,Nurkic,male,1,Suns
101,1993-08-23,Drew,Eubanks,male,1,Suns
102,1973-06-21,Frank,Vogel,male,1,Suns
103,1968-09-05,Mat,Ishbia,male,1,Suns
104,1970-11-01,Erik,Spoelstra,male,1,Heat
105,1949-06-29,Micky,Arison,male,1,Heat
106,1976-09-25,Chauncey,Billups,male,1,Trailblazers
107,1959-02-03,Jody,Allen,female,1,Trailblazers
108,1971-09-15,Michael,Malone,male,1,Nuggets
109,1947-06-29,Stan,Kroenke,male,1,Nuggets
110,1988-01-21,William,Hardy,male,1,Jazz
111,1978-06-28,Ryan,Smith,male,1,Jazz
112,1977-08-09,Ime,Udoka,male,1,Rockets
113,1957-03-15,Tilman,Fertitta,male,1,Rockets
114,1975-02-11,Jacque,Vaughn,male,1,Nets
115,1964-01-21,Joe,Tsai,male,1,Nets
116,1958-01-17,Tom,Thibodeau,male,1,Knicks
117,1955-05-11,James,Dolan,male,1,Knicks
118,1988-06-30,Joe,Mazzulla,male,1,Celtics
119,1960-05-22,Kevin,Banks,male,1,Celtics
120,1967-07-24,Nick,Nurse,male,1,76ers
121,1964-12-12,Joshua,Harris,male,1,76ers
122,1974-07-04,Adrian,Griffin,male,1,Bucks
123,1961-10-30,Wesley,Edens,male,1,Bucks
124,1965-09-27,Steven,Kerr,male,1,Warriors
125,1956-01-10,Joe,Lacob,male,1,Warriors
126,1979-03-10,John,Bickerstaff,male,1,Cavaliers
127,1962-01-17,Dan,Gilbert,male,1,Cavaliers
128,1949-01-28,Gregg,Popovich,male,1,Spurs
129,1957-02-25,Peter,John,male,1,Spurs
130,1959-10-27,Rick,Carlisle,male,1,Pacers
131,1934-10-23,Herbert,Simon,male,1,Pacers
132,1998-04-15,Ariana,Lawnsford,female,1,Suns
133,1989-09-17,Ned,Oscar,male,1,Heat
134,1990-05-19,Maria,Florence,female,1,Trailblazers
135,1991-02-15,Mathew,Conner,male,1,Nuggets
136,1990-09-20,Dora,Perez,female,1,Jazz
137,1998-11-30,Steve,Cob,male,1,Rockets
138,1994-08-19,Grace,Moore,female,1,Nets
139,1995-05-17,Melody,Norm,female,1,Knicks
140,1985-01-07,Tom,Cruise,male,1,Celtics
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141,1998-10-03,Gregg,Ovidiou,male,1,76ers
142,1984-09-01,Shelly,Vasquez,female,1,Bucks
143,1975-04-02,Aaron,Bain,male,1,Warriors
144,1987-12-06,Ivan,Giant,male,1,Cavaliers
145,1984-03-09,Carla,Ford,female,1,Spurs
146,1982-02-18,Frida,Trust,female,1,Pacers
147,1980-06-11,Mat,Wayne,male,1,NBA
148,1985-11-05,Abraham,Crane,male,1,NBA
149,1989-09-18,Le,Yutani,male,1,NBA
150,1984-10-02,Jason,Kennedy,male,1,NBA
151,1979-12-25,Bruce,will,male,1,NBA
152,1990-02-13,Alfred,McAlister,male,1,NBA
153,1984-06-14,Frank,Osborn,male,1,NBA
154,1992-01-24,Terry,Newman,male,1,NBA
155,1996-10-11,Patrick,Isaac,male,1,NBA


Height,rating,rings,FKEmployeeID
77,89,1,1
75,80,0,2
75,85,0,3
72,70,1,4
73,81,0,5
76,80,0,10
77,81,1,11
79,84,1,12
70,73,1,13
72,70,1,14
78,98,5,18
77,94,2,19
71,87,2,20
73,82,1,21
73,76,0,22
75,77,0,27
74,74,0,28
74,87,0,29
77,80,0,30
76,71,0,31
78,72,1,32
75,80,0,33
77,75,0,34
74,74,0,35
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73,78,0,36
72,80,1,37
70,79,1,38
75,77,0,39
75,78,1,40
75,73,0,41
72,99,7,42
73,90,3,43
76,87,2,44
77,88,2,45
79,80,1,46
71,76,0,47
72,77,0,48
78,77,0,49
80,73,0,50
71,70,0,51
73,79,1,52
73,72,0,53
75,70,0,54
74,76,1,55
74,71,0,56
83,78,0,57
82,78,1,58
77,74,0,59
75,80,0,60
77,82,1,61
73,73,0,62
72,71,0,63
70,76,0,64
71,77,0,65
71,71,0,66
77,83,0,67
75,80,0,68
72,83,1,69
73,70,0,70
76,76,0,71
77,80,0,72
79,82,0,73
70,77,0,74
72,78,1,75
78,85,2,76
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80,82,0,77
71,72,0,78
73,72,0,79
72,74,0,80
75,75,0,81
73,81,1,82
74,80,0,83
83,71,0,84
81,73,0,85
77,77,1,86
75,74,0,87
77,76,0,88
74,76,0,89
73,79,0,90
72,83,0,91
70,84,1,92
71,80,0,93
76,74,0,94
77,70,0,95
72,71,0,96
73,74,0,97
76,73,0,98
77,72,0,99
79,70,0,100
71,78,1,101

role,FKEmployeeID
Trainer,7
Marketing,9
Physiotherapist,17
Trainer,23
Lawyer,24
Marketing,132
Scout,133
Physician,134
Marketing,135
Physician,136
Manager,137
Scout,138
Lawyer,139
Trainer,140
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Manager,141
Marketing,142
Trainer,143
Scout,144
Physician,145
Physiotherapist,146

Experience,FKEmployeeID
7,8
5,16
11,25
4,102
12,104
7,106
10,108
3,110
5,112
15,114
12,116
17,118
6,120
7,122
12,124
4,126
6,128
10,130

ownershipYears,FKEmployeeID
20,6
35,15
24,26
36,103
33,105
19,107
39,109
22,111
17,113
28,115
40,117
37,119
32,121
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39,123
44,125
26,127
21,129
34,131

numberOfGames,FKEmployeeID
77,147
93,148
73,149
100,150
112,151
140,152
200,153
196,154
121,155

name,teamSize,cameraType,micType,productionSoftware,FKTeamName
MavSide,12,"Canon C200","Razer Seiren","Premiere Pro",Mavericks
LiveLakes,7,"Sony FX6","HyperX Quadcast","Premiere Pro",Lakers
WarLords,14,"Canon XA60","Razer Seiren","OBS",Warriors
BullCamp,10,"Sony FR7","Shure MV7","Premiere Pro",Bulls
7Take6,13,"Sony FX3","HyperX Quadcast","Premiere Pro",76ers
CelTakes,10,"Canon C200","Sony C-80","OBS",Celtics
"Knick Knacks",19,"Sony FX6","Sony ECM-100N","OBS",Knicks
NetWorth,10,"Canon XA60","Shure MV7","Premiere Pro",Nets
CavTavern,11,"Panasonic S5","Sony ECM-100U","OBS",Cavaliers
RocketTime,7,"Canon R5","Razer Seiren","Premiere Pro",Rockets
SpurForward,23,"Sony FX6","Sony C-100","OBS",Spurs
JazzClub,11,"Canon C200","Shure MV7","Premiere Pro",Jazz
BuckHunt,6,"Panasonic S5","Sony ECM-100N","OBS",Bucks
PaceTracker,7,"Canon XA60","HyperX Quadcast","OBS",Pacers
NuggetSide,10,"Sony FX3","Sony C-100","Premiere Pro",Nuggets
TrailPath,6,"Canon C200","Sony C-100","OBS",Trailblazers
Reheat,8,"Panasonic S5","Razer Seiren","Premiere Pro",Heat
Eclipse,9,"Sony FR7","Sony C-80","OBS",Suns

name,sponsorshipAmount,taxID
Coca-Cola,1000000,1
McDonald's,3000000,2
Microsoft,5000000,3
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Google,4500000,4
Monster Energy,959000,5
Gatorade,2340000,6
Red Bull,2150000,7
X,750000,8
Pepsi,893000,9
In-N-Out,1000000,10
Facebook,2100000,11
Amazon,1980000,12
Netflix,951000,13
Apple,3000000,14
YouTube,915000,15
DoorDash,750000,16
American Express,2003000,17
Nike,4000000,18

FKTax,FKTeam
3,Mavericks
1,Rockets
2,Warriors
18,Lakers
4,Spurs
6,Heat
5,Nuggets
7,Bucks
17,76ers
8,Trailblazers
9,Bulls
16,Nets
10,Jazz
11,Pacers
13,Knicks
12,Suns
14,Cavaliers
15,Celtics

price,taxID,FKNBATaxID
12,1,1
9,2,1
10,3,1
30,4,1
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15,5,1
25,6,1
45,7,1
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teamName,FKTaxID
Mavericks,5
Bulls,5
Spurs,1
Warriors,6
Lakers,5
Nets,3
Cavaliers,5
```

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Year,FKTaxID
2016,6
2017,6
2018,7
2019,4
2020,5
2021,3
2022,3
2023,6
```

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streamPlatform,FKTaxID
Twitch.TV,1
Amazon Prime Video,1
Apple TV+,3
HBO Max,5
Netflix,5
Peacock,3
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playoffs,finals,team1Name,team2Name,gameDate,seasonNum,year,FKNB
ATaxID
true,false,Bulls,Warriors,2023-3-20,1,2023,1
true,false,Mavericks,Cavaliers,2023-3-21,2,2023,1
true,true,Warriors,Lakers,2024-4-17,3,2024,1
false,false,Nets,Heat,2024-9-01,4,2024,1
false,false,Bucks,Suns,2024-9-05,5,2024,1
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false,false,Knicks,Spurs,2024-10-11,6,2024,1
false,false,Lakers,Rockets,2024-10-13,7,2024,1
false,false,Trailblazers,Nuggets,2024-11-26,8,2024,1
true,false,Lakers,Warriors,2025-3-19,9,2025,1
true,false,Pacers,Jazz,2025-3-23,10,2025,1
true,false,76ers,Bulls,2025-4-02,11,2025,1
true,false,Celtics,Mavericks,2025-4-03,12,2025,1
true,true,Mavericks,76ers,2025-4-25,13,2025,1
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