

CS4347 Database Systems

Final Project Deliverable 2

Dallas Mavericks Database

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Deonte Hewell, Payson Eberz, Jhanzeb Bastaki, Ankintunji
Sule, Britney Abner

Description:

1. Dallas Mavericks Basketball
2. GitHub:
<https://github.com/SmarabSJJ/CS-4347.005-Dallas-Mavericks-Database>
3. Members/Delegations:
 - a. Smaran Voora: Project Manager FPD1 3.3,3.4 FPD2 3.5
 - b. Surya Mallidi: Create EER and Relational Database Model
 - c. Rohan Sanyal: Create SQL Infrastructure and Create Insert Statements for SQL Database, FPD1 3.3, FPD2 3.5, Conclusion/Future Works
 - d. Aarez Ali Momin: Create Insert Statements for SQL Database and players, FPD1 3.4, Front end
 - e. Deonte Hewell: FPD1 Background Information/Related Work and Test Implementation of SQL Database
 - f. Payson Eberz: Create EER and Relational Database Model
 - g. Jahnzeb Bastaki: FPD1 Introduction and Create Font End to connect to SQL, Front end
 - h. Akintunji Sule: Create Insert Statement
 - i. Britney Abner: Create SQL Infrastructure, FPD1 Background Info,
4. Motivation: Simply put, we members of the team simply love the Dallas Mavs and want an interactive database that models the organization so us fans and analytical masters can look at and understand the Mavs better. We expect our product to help Mavs fans like us and the coaches to get an analytical understanding of the team, and how they perform against other teams.#MFFL
5. Project Timeline:
 - a. Group Creation(9/3)
 - b. Final Project Proposal Submission(9/10)
 - c. Group Member Addition: Akintunji Sule(9/26)
 - d. Group Member Addition: Britney Abner(9/27)
 - e. Design Meeting(Smaran, Payson, Surya)(10/8)
 - f. FPD1 Meeting(Smaran, Surya, Jahnzeb, Rohan, Deonte, Payson, Aarez)
 - g. FPD1 Turnin(10/18)

Introduction:

Our project is centered on building a database system for the Dallas Mavericks, designed such that it will be able to efficiently store and manage data related to their players, their staff, and the organizational structure as a whole. We chose this topic due to our passion for sports, especially basketball, and our desire to build a database system such that it can be used to see the efficiency of the team and organization as a whole for analysts and fans alike. We especially wanted to create a database system for the Dallas Mavericks because of two reasons: 1) The Dallas Mavericks are the home team for Dallas and is a team that we all love to watch, and 2) The 2023 - 2024 Finals run was awe-inspiring as the run to the finals was incredible, but due to them losing in the finals, we thought that creating a database system would show how efficient the organization is at managing their resources and could show some sort of insight for fans and analysts as to bettering the team and organization as a whole.

The database system will look to streamline the process of gathering data specific to the Dallas Mavericks organization, whether that be player data, basketball game results, staff roles, or team operations, such that analysts or fans can view at their own discretion. Of course any sensitive data of the players or the employees will not be visible, but data regarding player statistics and management will be kept as a way for fans, analysts, and hopefully the Dallas Mavericks to see how well the organization is run, and how player performance can be impacted by the changes within the organization. Moreover, by centralizing the information in one place, this database system can also aid by providing a foundation for creating fan applications that can offer deeper insights into the organizations dynamics, player statistics, and achievements.

Background and Related Work:

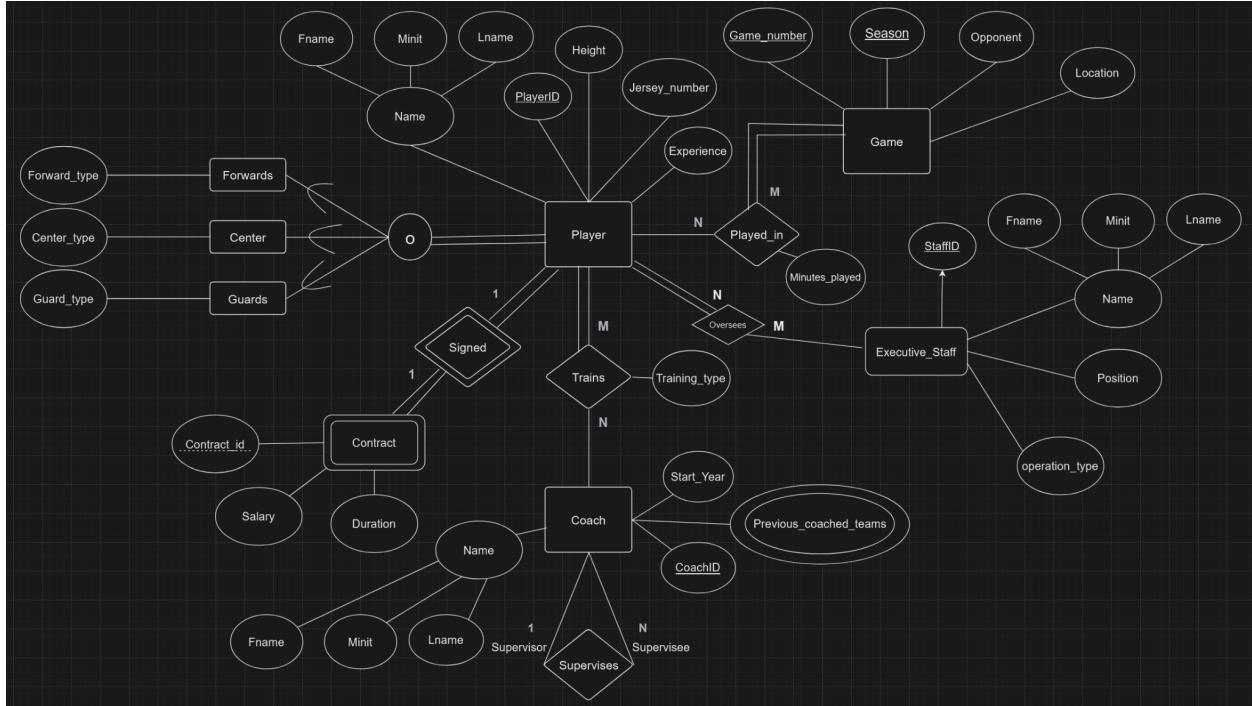
Several projects similar to ours such as Basketball-Reference and RealGM are known for extensive coverage of player data and team statistics, both of which overlap with the goals of our project. Our database focuses on the key elements of one basketball team, the Dallas Mavericks. On the other hand, Basketball-Reference covers all teams in the NBA [1]. Basketball-Reference provides information on player statistics, assistant coaches, and training staff, emphasizing historical data. Our project shares the goal of storing player data and team staff information but Basketball-Reference is much broader in scope. While it covers the entire NBA, our project focuses solely on the Dallas Mavericks and includes details of the executive staff and contract duration.

Additionally, Basketball Reference does not model the full organizational structure of a team whereas our database aims to include support staff and team executives. RealGM also covers a broad range of basketball information similar to Basketball-Reference. However, unlike Basketball-Reference, RealGM also contains contract and transaction information [2]. NBA Advanced Stats, the official database of NBA statistics and team information found on the NBA website also provides similar information [3]. This includes live updates of player statistics, historical data on player statistics and team lineups, and information on team members and coaching staff. While NBA Advanced Stats provides information on team organization and staff, our project aims to go into more detail on this subject than the NBA's official database does. Overall, there are existing projects related to the NBA but our's differentiates itself by focusing solely on the Dallas Mavericks and offering a more detailed and specific view of the organization as a whole.

To further differentiate our project, we made a key distinction in modeling relationships between different entities within the organization. Our database stores player and staff data as well as connections between players, coaches, contracts, and other staff. This reflects the real-world hierarchical structure of a professional sports team as can be seen with the Trains and Supervises relationship in our ER model. This level of detailed relationship modeling is not commonly found in sports databases and mirrors the internal workings of a team beyond just players, statistics, or transactions. Furthermore, our model allows for dynamic updates to these relationships which makes it easier to track how the organization changes over time. This provides an adaptable framework that can adjust to future changes, making the system more forward-looking than traditional databases.

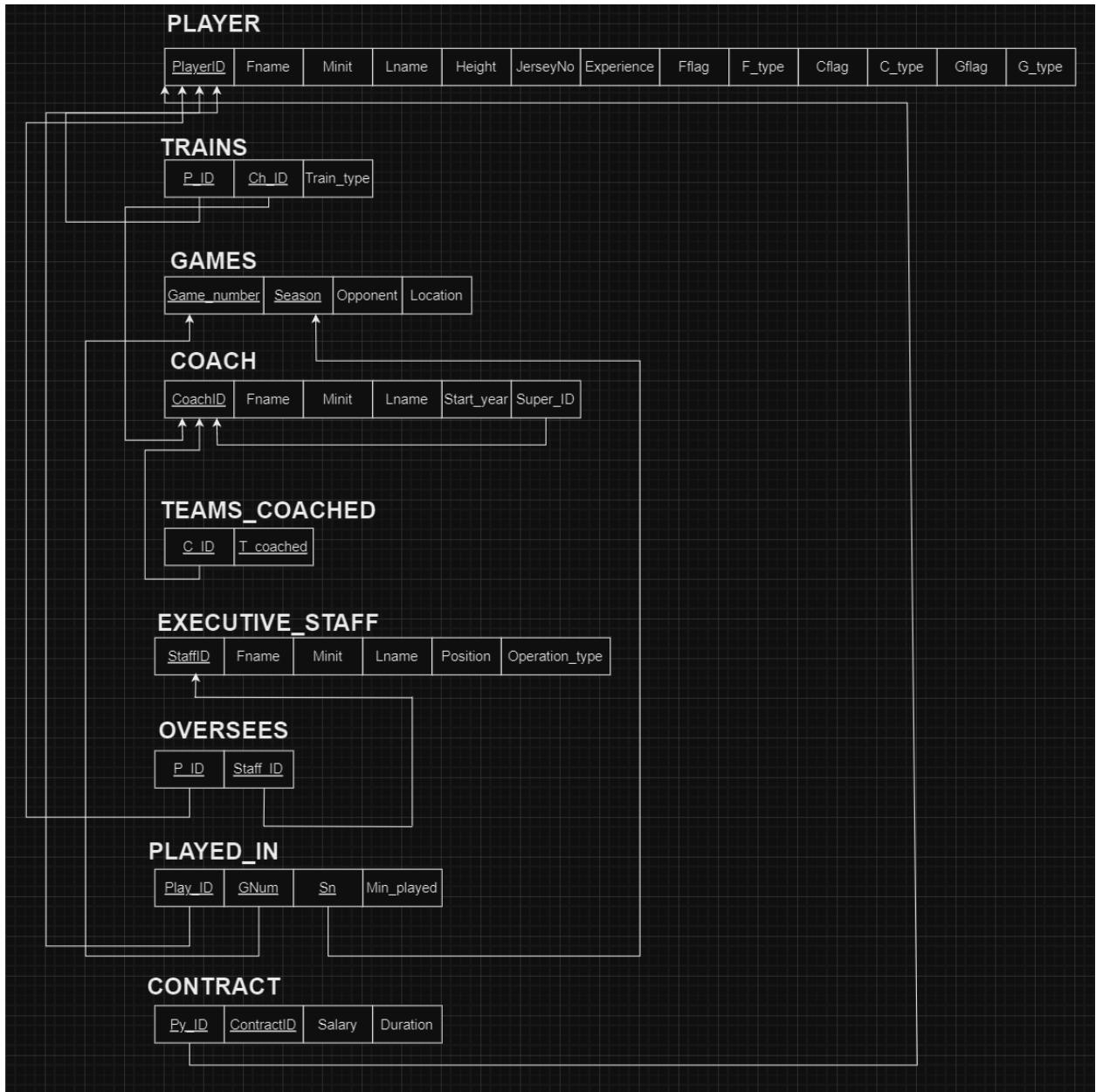
Design & Implementation (Phase I):

1. EER Conceptual Data Model Design:



All the tables in deliverable 1 were in 3NF form, therefore, there were no changes made to these tables hence no change to the EER diagram. One reason is that each of the tables were already in 1NF as there are no composite attributes on each table and the multivalued attribute was given its own table with a reference to the coach table. Each table is in 2NF form due to each table having full functional dependency: for the player table the attributes are dependent on PlayerID primary key, the Trains table it would be P_ID and C_ID together, the Games table would be Game_number and season together, the coach table would be the CoachID primary key, Teams coached would be C_ID, the Executive_Staff table would be StaffID, the Oversees table it is P_ID and Staff_ID together, the Played_in it would be Play_ID; Gnum; Sn together, and finally the Contract table would be Py_ID and Contract_ID. These tables in their current form are already in the 3NF form as each of the tables does not have any transitive dependencies and any references that were needed, the tables were already separated and foreign keys were placed in those tables to refer to the tables with the primary key. Therefore, for these reasons, the tables that we had in deliverable 1 were not changed.

2. Relational Data Model Design:



We did not change the tables, therefore we did not change the schema diagram because each of our tables were already in 3NF form. The justifications for the relational database are the same as mentioned in section 3.1 where reasons for the tables not changing were addressed. As explained more thoroughly in 3.1, the relationships were already 2NF with no transitive dependencies and reliance on key attributes. Therefore the EER diagram and the relational schema were not changed.

3. Create your Database and Populate

a. Create: LOOK IN CREATE.SQL IN SUBMISSION OR GITHUB

```
4 • ○ CREATE TABLE Player (
5     PlayerID INT PRIMARY KEY,
6     Fname VARCHAR(50),
7     Minit CHAR(1),
8     Lname VARCHAR(50),
9     Height FLOAT,
10    JerseyNo CHAR(2),
11    Experience INT,
12    Fflag BOOLEAN NOT NULL,
13    F_type VARCHAR(2),
14    Cflag BOOLEAN NOT NULL,
15    C_type VARCHAR(2),
16    Gflag BOOLEAN NOT NULL,
17    G_type VARCHAR(2)
18 );
19
20 • ○ CREATE TABLE Coach (
21     CoachID INT PRIMARY KEY,
22     Fname VARCHAR(50),
23     Minit CHAR(1),
24     Lname VARCHAR(50),
25     Start_year INT,
26     Super_ID INT
27 );
28
29 • ○ CREATE TABLE Games (
30     Game_number INT PRIMARY KEY,
31     Season VARCHAR(50),
32     Opponent VARCHAR(3),
33     Location VARCHAR(100)
34 );
35
36 • ○ CREATE TABLE Executive_Staff (
37     StaffID INT PRIMARY KEY,
38     Fname VARCHAR(50),
39     Minit CHAR(1),
40     Lname VARCHAR(50),
41     Position VARCHAR(50),
42     Operation_type VARCHAR(50)
43 );
44
45 • ○ CREATE TABLE Contract (
46     Py_ID INT,
47     ContractID INT,
48     Salary DECIMAL(12, 2),
49     Duration INT,
50     CONSTRAINT PK_Contract PRIMARY KEY (Py_ID, ContractID),
51     CONSTRAINT FK_Player_Contract FOREIGN KEY (Py_ID) REFERENCES Player(PlayerID) ON UPDATE CASCADE ON DELETE CASCADE
52 );
53
54 • ○ CREATE TABLE Teams_Coached (
55     C_ID INT,
56     T_coached VARCHAR(100),
57     CONSTRAINT PK_Teams_Coached PRIMARY KEY (C_ID, T_coached),
58     CONSTRAINT FK_Coach_Teams_Coached FOREIGN KEY (C_ID) REFERENCES Coach(CoachID) ON UPDATE CASCADE ON DELETE CASCADE
59 );
60
61 • ○ CREATE TABLE Trains (
62     P_ID INT,
63     Ch_ID INT,
64     Train_type VARCHAR(50),
65     CONSTRAINT PK_Trains PRIMARY KEY(P_ID, Ch_ID),
66     CONSTRAINT FK_Player_Trains FOREIGN KEY (P_ID) REFERENCES Player(PlayerID) ON UPDATE CASCADE ON DELETE CASCADE,
67     CONSTRAINT FK_Coach_Trains FOREIGN KEY (Ch_ID) REFERENCES Coach(CoachID) ON UPDATE CASCADE ON DELETE CASCADE
68 );
69
70 • ○ CREATE TABLE Played_in (
71     Play_id INT,
72     GNum INT,
73     CONSTRAINT PK_Playedin PRIMARY KEY(Play_id, GNum),
74     Sn VARCHAR(100),
75     Min_played INT,
76     CONSTRAINT FK_Player_Played_in FOREIGN KEY (Play_id) REFERENCES Player(PlayerID) ON UPDATE CASCADE ON DELETE CASCADE,
77     CONSTRAINT FK_Game_Playedin FOREIGN KEY (GNum) REFERENCES Games(Game_number) ON UPDATE CASCADE ON DELETE CASCADE
78 );
79
80 • ○ CREATE TABLE Oversees (
81     P_ID INT,
82     Staff_ID INT,
83     CONSTRAINT PK_Oversees PRIMARY KEY(P_ID, Staff_ID),
84     CONSTRAINT FK_Player_Oversee FOREIGN KEY (P_ID) REFERENCES Player(PlayerID) ON UPDATE CASCADE ON DELETE CASCADE,
85     CONSTRAINT FK_Player_Staff_ID FOREIGN KEY (Staff_ID) REFERENCES Executive_Staff(StaffID) ON UPDATE CASCADE ON DELETE CASCADE
86 );
```

b. Insert: LOOK IN INSERT>SQL IN SUBMISSION OR GITHUB

```

INSERT INTO Player (PlayerID, Fname, Minit, Lname, Height, JerseyNo, Experience, Fflag, F_type, Cflag, C_type, Gflag, G_type) VALUES
(1, 'Spencer', 'G', 'Dinwiddie', 1.96, '26', 10, FALSE, NULL, FALSE, NULL, TRUE, 'PG'),
(2, 'Luka', 'D', 'Doncic', 1.98, '77', 6, FALSE, NULL, FALSE, NULL, TRUE, 'PG'),
(3, 'Kessler', 'D', 'Edwards', 2.01, '20', 11, TRUE, 'SF', FALSE, NULL, FALSE, NULL),
(4, 'Dante', NULL, 'Exum', 1.96, '0', 7, FALSE, NULL, FALSE, NULL, TRUE, 'G'),
(5, 'Daniel', NULL, 'Gafford', 2.08, '21', 10, FALSE, NULL, TRUE, 'C', FALSE, NULL),
(6, 'Jazian', NULL, 'Gortman', 1.88, '00', 8, FALSE, NULL, FALSE, NULL, TRUE, 'G'),
(7, 'Quentin', 'M', 'Grimes', 1.93, '51', 3, FALSE, NULL, FALSE, NULL, TRUE, 'SG'),
(8, 'Jaden', 'A', 'Hardy', 1.91, '1', 2, FALSE, NULL, FALSE, NULL, TRUE, 'G'),
(9, 'Kyrie', 'A', 'Irving', 1.88, '11', 13, FALSE, NULL, FALSE, NULL, TRUE, 'P'),
(10, 'Maxi', NULL, 'Kleber', 2.08, '42', 7, TRUE, 'PF', FALSE, NULL, FALSE, NULL),
(11, 'AJ', NULL, 'Lawson', 1.98, '9', 2, FALSE, NULL, FALSE, NULL, TRUE, 'G'),
(12, 'Dereck', 'J', 'Lively II', 2.16, '2', 1, FALSE, NULL, TRUE, 'C', FALSE, NULL),
(13, 'Naji', 'M', 'Marshall', 1.98, '13', 4, TRUE, 'SF', FALSE, NULL, FALSE, NULL),
(14, 'Emanual', NULL, 'Miller', 2.01, '3', 0, TRUE, 'F', FALSE, NULL, FALSE, NULL),
(15, 'Markieff', NULL, 'Morris', 2.06, '88', 0, TRUE, 'PF', FALSE, NULL, FALSE, NULL),
(16, 'Dwight', 'H', 'Powell', 2.08, '7', 10, FALSE, NULL, TRUE, 'C', FALSE, NULL),
(17, 'Oliver-Maxence', NULL, 'Prosper', 2.01, '81', 1, TRUE, 'F', FALSE, NULL, FALSE, NULL),
(18, 'Jamarion', 'D', 'Sharp', 2.26, '33', 8, FALSE, NULL, TRUE, 'C', FALSE, NULL),
(19, 'Klay', 'A', 'Thompson', 1.96, '31', 11, FALSE, NULL, FALSE, NULL, TRUE, 'SG'),
(20, 'Paul', 'J', 'Washington', 1.98, '25', 5, TRUE, 'PF', FALSE, NULL, FALSE, NULL),
(21, 'Brandon', NULL, 'Williams', 1.85, '10', 2, FALSE, NULL, FALSE, NULL, TRUE, 'G');

27 • INSERT INTO Coach (CoachID, Fname, Minit, Lname, Start_year, Super_ID) VALUES
28 (1, 'Jason', 'F', 'Kidd', 2021, NULL), -- Head coach, so Super_ID is NULL
29 (2, 'Sean', NULL, 'Sweeney', 2021, 1),
30 (3, 'Jared', 'A', 'Dudley', 2021, 1),
31 (4, 'Alex', NULL, 'Jensen', 2023, 1),
32 (5, 'Eric', NULL, 'Hughes', 2023, 1),
33 (6, 'Darrell', 'E', 'Armstrong', 2009, 1),
34 (7, 'Josh', NULL, 'Broghamer', 2023, 1),
35 (8, 'Marko', NULL, 'Milic', 2022, 1),
36 (9, 'God', NULL, 'Shammgod', 2019, 1),
37 (10, 'Keith', 'M', 'Veney', 2021, 1);

39 • INSERT INTO Games (Game_number, Season, Opponent, Location) VALUES
40 (061724, '23-24', 'BOS', 'TD Garden'),
41 (061424, '23-24', 'BOS', 'American Airlines Center'),
42 (061224, '23-24', 'BOS', 'American Airlines Center'),
43 (060924, '23-24', 'BOS', 'TD Garden'),
44 (060624, '23-24', 'BOS', 'TD Garden'),
45 (053024, '23-24', 'MIN', 'Target Center'),
46 (052824, '23-24', 'MIN', 'American Airlines Center'),
47 (052624, '23-24', 'MIN', 'American Airlines Center'),
48 (052424, '23-24', 'MIN', 'Target Center'),
49 (052224, '23-24', 'MIN', 'Target Center'),
50 (051824, '23-24', 'OKC', 'American Airlines Center'),
51 (051524, '23-24', 'OKC', 'Paycom Center'),
52 (051324, '23-24', 'OKC', 'American Airlines Center'),
53 (051124, '23-24', 'OKC', 'American Airlines Center'),
54 (050924, '23-24', 'OKC', 'Paycom Center'),
55 (050724, '23-24', 'OKC', 'Paycom Center'),
56 (050324, '23-24', 'LA', 'American Airlines Center'),
57 (050124, '23-24', 'LA', 'Crypto.com Arena'),
58 (042824, '23-24', 'LA', 'American Airlines Center'),
59 (042624, '23-24', 'LA', 'American Airlines Center'),
60 (042324, '23-24', 'LA', 'Crypto.com Arena'),
61 (042124, '23-24', 'LA', 'Crypto.com Arena');

63 • Insert Into Executive_Staff(StaffID, Fname, Minit, Lname, Position, Operation_type) VALUES
64 (9898, 'Cynt', NULL, 'Marshall', 'CEO', 'Business Operations'),
65 (1234, 'Donn', NULL, 'Nelson', 'General Manager', 'Basketball Operations'),
66 (2345, 'Ronnie', NULL, 'Fauss', 'Chief Strategy Officer', 'Business Development'),
67 (3456, 'Sekou', NULL, 'Lewis', 'General Counsel', 'Counsel'),
68 (4567, 'Greg', NULL, 'nared', 'SVP Player Relations', 'Player Relations'),
69 (5678, 'Theo', NULL, 'Hodges', 'SVP Ticket Sales', 'Ticket Sales'),
70 (6789, 'Candice', NULL, 'Coleman', 'Chief of Staff', 'Staff Management'),
71 (7891, 'Billy', NULL, 'Phillips', 'VP Corporate Sponsorship', 'Sponsorship'),
72 (8912, 'Scott', NULL, 'Powers', 'Director', 'Information Technology'),
73 (9123, 'Alison', NULL, 'Panasik', 'VP Brand Identity', 'Brand');

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75 • INSERT INTO Contract (Py_ID, ContractID, Salary, Duration) VALUES
76   (2, 102, 215159700.00, 5),
77   (9, 109, 12000000.00, 3),
78   (19, 119, 5000000.00, 3),
79   (20, 120, 46500000.00, 3),
80   (5, 105, 40182480.00, 3),
81   (10, 110, 33000000.00, 3),
82   (13, 113, 27000000.00, 3),
83   (12, 112, 22282691.00, 4),
84   (17, 117, 13870583.00, 4),
85   (16, 116, 12000000.00, 3),
86   (7, 107, 11128042.00, 4),
87   (4, 104, 6150000.00, 2),
88   (8, 108, 4757344.00, 3),
89   (1, 101, 3303771.00, 1),
90   (15, 115, 3303771.00, 1),
91   (11, 111, 2048494.00, 1),
92   (6, 106, 1157153.00,1),
93   (14, 114, 1157153.00,1),
94   (18, 118, 1157153.00,1);

95 • INSERT INTO Teams_Coached (C_ID, T_coached) VALUES
96   (1, 'Dallas Mavericks'),
97   (1, 'Brooklyn Nets'),
98   (1, 'Milwaukee Bucks'),
99   (2, 'Dallas Mavericks'),
100  (2, 'Milwaukee Bucks'),
101  (2, 'Detroit Pistons'),
102  (2, 'Philadelphia 76ers'),
103  (3, 'Dallas Mavericks'),
104  (4, 'Dallas Mavericks'),
105  (4, 'Utah Jazz'),
106  (5, 'Dallas Mavericks'),
107  (5, 'Philadelphia 76ers'),
108  (5, 'Milwaukee Bucks'),
109  (5, 'Brooklyn Nets'),
110  (6, 'Dallas Mavericks'),
111  (7, 'Dallas Mavericks'),
112  (7, 'Cleveland Cavaliers'),
113  (8, 'Dallas Mavericks'),
114  (8, 'Slovenian National Team'),
115  (9, 'Dallas Mavericks'),
116  (10, 'Dallas Mavericks');

```

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118 • INSERT INTO Played_In(Play_id, GNum, Sn, Min_played) VALUES
119   (2, 061724, '23-24', 43),
120   (2, 061424, '23-24', 32),
121   (2, 061224, '23-24', 38),
122   (2, 060924, '23-24', 42),
123   (2, 060624, '23-24', 38),
124   (2, 053024, '23-24', 36),
125   (2, 052824, '23-24', 41),
126   (2, 052624, '23-24', 41),
127   (2, 052424, '23-24', 41),
128   (2, 052224, '23-24', 41),
129   (2, 051824, '23-24', 45),
130   (2, 051524, '23-24', 42),
131   (2, 051324, '23-24', 42),
132   (2, 051124, '23-24', 40),
133   (2, 050924, '23-24', 41),
134   (2, 050724, '23-24', 41),
135   (2, 050324, '23-24', 43),
136   (2, 050124, '23-24', 40),
137   (2, 042824, '23-24', 45),
138   (2, 042624, '23-24', 40),
139   (2, 042324, '23-24', 46),
140   (2, 042124, '23-24', 43),
141   (4, 061724, '23-24', 9),
142   (4, 061424, '23-24', 14),
143   (4, 061224, '23-24', 3),
144   (4, 060924, '23-24', 11),
145   (4, 060624, '23-24', 5),
146   (4, 053024, '23-24', 11),
147   (4, 052824, '23-24', 4),
148   (4, 052624, '23-24', 1),
149   (4, 052424, '23-24', 3),
150   (4, 052224, '23-24', 3),
150   (4, 052224, '23-24', 3),
151   (4, 051524, '23-24', 1),
152   (4, 051324, '23-24', 5),
153   (4, 051124, '23-24', 6),
154   (4, 050924, '23-24', 6),
155   (4, 050724, '23-24', 9),
156   (4, 050324, '23-24', 7),
157   (4, 050124, '23-24', 10),
158   (4, 042824, '23-24', 2),
159   (4, 042624, '23-24', 12),
160   (4, 042324, '23-24', 6),
161   (4, 042124, '23-24', 16),
162   (5, 061724, '23-24', 11),
163   (5, 061424, '23-24', 10),
164   (5, 061224, '23-24', 16),
165   (5, 060924, '23-24', 23),
166   (5, 060624, '23-24', 14),
167   (5, 053024, '23-24', 20),
168   (5, 052824, '23-24', 31),
169   (5, 052624, '23-24', 29),
170   (5, 052424, '23-24', 21),
171   (5, 052224, '23-24', 21),
172   (5, 051824, '23-24', 19),
173   (5, 051524, '23-24', 25),
174   (5, 051324, '23-24', 23),
175   (5, 051124, '23-24', 20),
176   (5, 050924, '23-24', 27),
177   (5, 050724, '23-24', 27),
178   (5, 050324, '23-24', 23),
179   (5, 050124, '23-24', 19),
180   (5, 042824, '23-24', 19),
181   (5, 042624, '23-24', 26),
182   (5, 042324, '23-24', 10),

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183 (5, 042124, '23-24', 14),
184 (8, 061724, '23-24', 3),
185 (8, 061424, '23-24', 14),
186 (8, 061224, '23-24', 4),
187 (8, 060924, '23-24', 2),
188 (8, 060624, '23-24', 11),
189 (8, 053024, '23-24', 8),
190 (8, 052824, '23-24', 12),
191 (8, 052624, '23-24', 11),
192 (8, 052424, '23-24', 12),
193 (8, 052224, '23-24', 9),
194 (8, 051824, '23-24', 11),
195 (8, 051524, '23-24', 15),
196 (8, 050924, '23-24', 1),
197 (8, 050724, '23-24', 5),
198 (8, 050324, '23-24', 1),
199 (8, 050124, '23-24', 6),
200 (8, 042824, '23-24', 3),
201 (8, 042624, '23-24', 3),
202 (8, 042124, '23-24', 1),
203 (9, 061724, '23-24', 41),
204 (9, 061424, '23-24', 31),
205 (9, 061224, '23-24', 45),
206 (9, 060924, '23-24', 41),
207 (9, 060624, '23-24', 37),
208 (9, 053024, '23-24', 40),
209 (9, 052824, '23-24', 42),
210 (9, 052624, '23-24', 42),
211 (9, 052424, '23-24', 39),
212 (9, 052224, '23-24', 40),
213 (9, 051824, '23-24', 42),
214 (9, 051524, '23-24', 39),
215 (9, 051324, '23-24', 41),  

215 (9, 051324, '23-24', 41),
216 (9, 051124, '23-24', 41),
217 (9, 050924, '23-24', 42),
218 (9, 050724, '23-24', 37),
219 (9, 050324, '23-24', 42),
220 (9, 050124, '23-24', 35),
221 (9, 042824, '23-24', 45),
222 (9, 042624, '23-24', 37),
223 (9, 042324, '23-24', 42),
224 (9, 042124, '23-24', 39),
225 (10, 061724, '23-24', 13),
226 (10, 061424, '23-24', 23),
227 (10, 061224, '23-24', 8),
228 (10, 060924, '23-24', 16),
229 (10, 060624, '23-24', 19),
230 (10, 053024, '23-24', 9),
231 (10, 052824, '23-24', 14),
232 (10, 050324, '23-24', 5),
233 (10, 050124, '23-24', 19),
234 (10, 042824, '23-24', 22),
235 (10, 042624, '23-24', 16),
236 (10, 042324, '23-24', 28),
237 (10, 042124, '23-24', 27),
238 (11, 061724, '23-24', 3),
239 (11, 061424, '23-24', 8),
240 (11, 053024, '23-24', 3),
241 (11, 051524, '23-24', 1),
242 (11, 050924, '23-24', 1),
243 (11, 050724, '23-24', 5),
244 (11, 050324, '23-24', 1),
245 (11, 050124, '23-24', 5),
246 (11, 042624, '23-24', 2),
247 (11, 042124, '23-24', 1),

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247 (11, 042124, '23-24', 1),
248 (12, 061724, '23-24', 24),
249 (12, 061424, '23-24', 22),
250 (12, 061224, '23-24', 30),
251 (12, 060924, '23-24', 19),
252 (12, 060624, '23-24', 19),
253 (12, 053024, '23-24', 25),
254 (12, 052624, '23-24', 10),
255 (12, 052424, '23-24', 27),
256 (12, 052224, '23-24', 27),
257 (12, 051824, '23-24', 30),
258 (12, 051524, '23-24', 23),
259 (12, 051324, '23-24', 25),
260 (12, 051124, '23-24', 27),
261 (12, 050924, '23-24', 20),
262 (12, 050724, '23-24', 13),
263 (12, 050324, '23-24', 24),
264 (12, 050124, '23-24', 25),
265 (12, 042824, '23-24', 18),
266 (12, 042624, '23-24', 16),
267 (12, 042324, '23-24', 21),
268 (12, 042124, '23-24', 19),
269 (15, 061424, '23-24', 12),
270 (16, 061724, '23-24', 3),
271 (16, 061424, '23-24', 8),
272 (16, 060624, '23-24', 5),
273 (16, 053024, '23-24', 3),
274 (16, 052824, '23-24', 3),
275 (16, 052624, '23-24', 8),
276 (16, 051524, '23-24', 0),
277 (16, 050924, '23-24', 1),
278 (16, 050724, '23-24', 5),
279 (16, 050324, '23-24', 1),  

280 (16, 050124, '23-24', 4),
281 (16, 042624, '23-24', 3),
282 (16, 042124, '23-24', 1),
283 (17, 061724, '23-24', 3),
284 (17, 061424, '23-24', 5),
285 (17, 042124, '23-24', 1),
286 (20, 061724, '23-24', 35),
287 (20, 061424, '23-24', 14),
288 (20, 061224, '23-24', 39),
289 (20, 060924, '23-24', 40),
290 (20, 060624, '23-24', 36),
291 (20, 053024, '23-24', 36),
292 (20, 052824, '23-24', 42),
293 (20, 052624, '23-24', 40),
294 (20, 052424, '23-24', 38),
295 (20, 052224, '23-24', 41),
296 (20, 051824, '23-24', 30),
297 (20, 051524, '23-24', 37),
298 (20, 051324, '23-24', 41),
299 (20, 051124, '23-24', 40),
300 (20, 050924, '23-24', 40),
301 (20, 050724, '23-24', 26),
302 (20, 050324, '23-24', 35),
303 (20, 050124, '23-24', 30),
304 (20, 042824, '23-24', 41),
305 (20, 042624, '23-24', 34),
306 (20, 042324, '23-24', 35),
307 (20, 042124, '23-24', 37);

```

```

309 • Insert Into Oversees(P_ID, Staff_ID)Values
310   (1, 1234),
311   (2, 1234),
312   (3, 1234),
313   (4, 1234),
314   (5, 1234),
315   (6, 1234),
316   (7, 1234),
317   (8, 1234),
318   (9, 1234),
319   (10, 1234),
320   (11, 1234),
321   (12, 1234),
322   (13, 1234),
323   (14, 1234),
324   (15, 1234),
325   (16, 1234),
326   (17, 1234),
327   (18, 1234),
328   (19, 1234),
329   (20, 1234),
330   (21, 1234);

INSERT INTO Trains (P_ID, Ch_ID, Train_type)VALUES
(1, 9, 'Ball Handling'),
(2, 1, 'Leadership'),
(3, 2, 'Defense'),
(4, 3, 'Player Development'),
(5, 4, 'Shooting'),
(6, 5, 'Strength & Conditioning'),
(7, 6, 'Motivation'),
(8, 7, 'Scouting & Analysis'),
(9, 8, 'Player Development'),
(10, 10, 'Shooting'),
(11, 1, 'Playmaking');

```

c. ScreenShots of Populated Data:

Players:

PlayerID	Fname	Minit	Lname	Height	JerseyNo	Experience	Fflag	F_type	Cflag	C_type	Gflag	G_type
1	Spencer	G	Dinwiddie	1.96	26	10	0	NULL	0	NULL	1	PG
2	Luka	D	Doncic	1.98	77	6	0	NULL	0	NULL	1	PG
3	Kessler	D	Edwards	2.01	20	11	1	SF	0	NULL	0	NULL
4	Dante	NULL	Exum	1.96	0	7	0	NULL	0	NULL	1	G
5	Daniel	NULL	Gafford	2.08	21	10	0	NULL	1	C	0	NULL
6	Jazian	NULL	Gortman	1.88	00	0	0	NULL	0	NULL	1	G
7	Quentin	M	Grimes	1.93	5	3	0	NULL	0	NULL	1	SG
8	Jaden	A	Hardy	1.91	1	2	0	NULL	0	NULL	1	B
9	Kyrie	A	Irving	1.88	11	13	0	NULL	0	NULL	1	P
10	Maxi	NULL	Kleber	2.08	42	7	1	PF	0	NULL	0	NULL
11	AJ	NULL	Lawson	1.98	9	2	0	NULL	0	NULL	1	G
12	Dereck	J	Lively II	2.16	2	1	0	NULL	1	C	0	NULL
13	Naji	M	Marshall	1.98	13	4	1	SF	0	NULL	0	NULL
14	Emanual	NULL	Miller	2.01	3	0	1	F	0	NULL	0	NULL
15	Markieff	NULL	Morris	2.06	88	0	1	PF	0	NULL	0	NULL
16	Dwight	H	Powell	2.08	7	10	0	NULL	1	C	0	NULL
17	Oliver-...	NULL	Prosper	2.01	8	1	1	F	0	NULL	0	NULL
18	Jamarion	D	Sharp	2.26	33	0	0	NULL	1	C	0	NULL
19	Klay	A	Thompson	1.96	31	11	0	NULL	0	NULL	1	SG
20	Paul	J	Washin...	1.98	25	5	1	PF	0	NULL	0	NULL
21	Brandon	NULL	Williams	1.85	10	2	0	NULL	0	NULL	1	G
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Coach: SELECT * FROM Players

CoachID	Fname	Minit	Lname	Start_year	Super_ID
1	Jason	F	Kidd	2021	NULL
2	Sean	NULL	Sweeney	2021	1
3	Jared	A	Dudley	2021	1
4	Alex	NULL	Jensen	2023	1
5	Eric	NULL	Hughes	2023	1
6	Darrell	E	Armstrong	2009	1
7	Josh	NULL	Broghamer	2023	1
8	Marko	NULL	Milić	2022	1
9	God	NULL	Shammgod	2019	1
10	Keith	M	Veney	2021	1
NULL	NULL	NULL	NULL	NULL	NULL

Games: SELECT * FROM Games

Game_number	Season	Opponent	Location
42124	23-24	LA	Crypto.com Arena
42324	23-24	LA	Crypto.com Arena
42624	23-24	LA	American Airlines Center
42824	23-24	LA	American Airlines Center
50124	23-24	LA	Crypto.com Arena
50324	23-24	LA	American Airlines Center
50724	23-24	OKC	Paycom Center
50924	23-24	OKC	Paycom Center
51124	23-24	OKC	American Airlines Center
51324	23-24	OKC	American Airlines Center
51524	23-24	OKC	Paycom Center
51824	23-24	OKC	American Airlines Center
52224	23-24	MIN	Target Center
52424	23-24	MIN	Target Center
52624	23-24	MIN	American Airlines Center
52824	23-24	MIN	American Airlines Center
53024	23-24	MIN	Target Center
60624	23-24	BOS	TD Garden
60924	23-24	BOS	TD Garden
61224	23-24	BOS	American Airlines Center
61424	23-24	BOS	American Airlines Center
61724	23-24	BOS	TD Garden
NULL	NULL	NULL	NULL

Exec Staff: SELECT * FROM Executive_Staff

StaffID	Fname	Minit	Lname	Position	Operation_type
1234	Donn	NULL	Nelson	General Manager	Basketball Operations
2345	Ronnie	NULL	Fauss	Chief Strategy Officer	Business Development
3456	Sekou	NULL	Lewis	General Counsel	Counsel
4567	Greg	NULL	nared	SVP Player Relations	Player Relations
5678	Theo	NULL	Hodges	SVP Ticket Sales	Ticker sales
6789	Candice	NULL	Coleman	Chief of Staff	Staff Management
7891	Billy	NULL	Phillips	VP Corporate Sponsorship	Sponsorship
8912	Scott	NULL	Powers	Director	Information Technology
9123	Alison	NULL	Panasik	VP Brand Identity	Brand
9898	Cynt	NULL	Marshall	CEO	Business Operations
NULL	NULL	NULL	NULL	NULL	NULL

Contract: SELECT * FROM Contract

Py_ID	ContractID	Salary	Duration
1	101	3303771.00	1
2	102	215159700.00	5
4	104	6150000.00	2
5	105	40182480.00	3
6	106	1157153.00	1
7	107	11128042.00	4
8	108	4757344.00	3
9	109	120000000.00	3
10	110	33000000.00	3
11	111	2048494.00	1
12	112	22282691.00	4
13	113	27000000.00	3
14	114	1157153.00	1
15	115	3303771.00	1
16	116	12000000.00	3
17	117	13870583.00	4
18	118	1157153.00	1
19	119	50000000.00	3
20	120	46500000.00	3
NULL	NULL	NULL	NULL

Teams Coached: SELECT * FROM Teams_Coached

C_ID	T_coached
1	Brooklyn Nets
1	Dallas Mavericks
1	Milwaukee Bucks
2	Dallas Mavericks
2	Detroit Pistons
2	Milwaukee Bucks
3	Dallas Mavericks
4	Dallas Mavericks
4	Utah Jazz
5	Brooklyn Nets
5	Dallas Mavericks
5	Milwaukee Bucks
5	Philadelphia 76...
6	Dallas Mavericks
7	Cleveland Cava...
7	Dallas Mavericks
8	Dallas Mavericks
8	Slovenian Natio...
9	Dallas Mavericks
10	Dallas Mavericks

Trains: SELECT * FROM Trains

P_ID	Ch_ID	Train_type
1	9	Ball Handling
2	1	Leadership
3	2	Defense
4	3	Player Development
5	4	Shooting
6	5	Strength & Conditioning
7	6	Motivation
8	7	Scouting & Analysis
9	8	Player Development
10	10	Shooting
11	1	Playmaking
NUL	NUL	NUL

Played in: SELECT * FROM Played_in MULTIPLE SCREEN SHOTS

Play_id	GNum	Sn	Min_played												
2	42124	23-24	43	5	50924	23-24	27	9	60624	23-24	37	12	51524	23-24	23
2	42324	23-24	46	5	51124	23-24	20	9	60924	23-24	41	12	51824	23-24	30
2	42624	23-24	40	5	51324	23-24	23	9	61224	23-24	45	12	52224	23-24	27
2	42824	23-24	45	5	51524	23-24	25	9	61424	23-24	31	12	52424	23-24	27
2	50124	23-24	40	5	51824	23-24	19	9	61724	23-24	41	12	52624	23-24	10
2	50324	23-24	43	5	52224	23-24	21	10	42124	23-24	27	12	53024	23-24	25
2	50724	23-24	41	5	52424	23-24	21	10	42324	23-24	28	12	60624	23-24	19
2	50924	23-24	41	5	52624	23-24	29	10	42624	23-24	16	12	60924	23-24	19
2	51124	23-24	40	5	52824	23-24	31	10	42824	23-24	22	12	61224	23-24	30
2	51324	23-24	42	5	53024	23-24	20	10	50124	23-24	19	12	61424	23-24	22
2	51524	23-24	42	5	60624	23-24	14	10	50324	23-24	5	12	61724	23-24	24
2	51824	23-24	45	5	60924	23-24	23	10	52824	23-24	14	15	61424	23-24	12
2	52224	23-24	41	5	61224	23-24	16	10	53024	23-24	9	16	42124	23-24	1
2	52424	23-24	41	5	61424	23-24	10	10	60624	23-24	19	16	42624	23-24	3
2	52624	23-24	41	5	61724	23-24	11	10	60924	23-24	16	16	50124	23-24	4
2	52824	23-24	41	8	42124	23-24	1	10	61224	23-24	8	16	50324	23-24	1
2	53024	23-24	36	8	42624	23-24	3	10	61424	23-24	23	16	50724	23-24	5
2	60624	23-24	38	8	42824	23-24	3	10	61724	23-24	13	16	50924	23-24	1
2	60924	23-24	42	8	50124	23-24	6	11	42124	23-24	1	16	51524	23-24	0
2	61224	23-24	38	8	50324	23-24	1	11	42624	23-24	2	16	52624	23-24	8
2	61424	23-24	32	8	50724	23-24	5	11	50124	23-24	5	16	52824	23-24	3
2	61724	23-24	43	8	50924	23-24	1	11	50324	23-24	1	16	53024	23-24	3
4	42124	23-24	16	8	51524	23-24	15	11	50724	23-24	5	16	60624	23-24	5
4	42324	23-24	6	8	51824	23-24	11	11	50924	23-24	1	16	61424	23-24	8
4	42624	23-24	12	8	52224	23-24	9	11	51524	23-24	1	16	61724	23-24	3
4	42824	23-24	2	8	52424	23-24	12	11	53024	23-24	3	17	42124	23-24	1
4	50124	23-24	10	8	52624	23-24	11	11	61424	23-24	8	17	61424	23-24	5
4	50324	23-24	7	8	52824	23-24	12	11	61724	23-24	3	17	61724	23-24	3
4	50724	23-24	9	8	53024	23-24	8	12	42124	23-24	19	20	42124	23-24	37
4	50924	23-24	6	8	60624	23-24	11	12	42324	23-24	21	20	42324	23-24	35
4	51124	23-24	6	8	60924	23-24	2	12	42624	23-24	16	20	42624	23-24	34
4	51324	23-24	5	8	61224	23-24	4	12	42824	23-24	18	20	42824	23-24	41
4	51524	23-24	1	8	61424	23-24	14	12	50124	23-24	25	20	50124	23-24	30
4	52224	23-24	3	8	61724	23-24	3	12	50324	23-24	13	20	50324	23-24	35
4	52424	23-24	3	9	42124	23-24	39	12	50724	23-24	20	20	50724	23-24	26
4	52624	23-24	1	9	42324	23-24	42	12	52224	23-24	27	20	50924	23-24	40
4	52824	23-24	4	9	42624	23-24	37	12	51124	23-24	27	20	51124	23-24	40
4	53024	23-24	11	9	42824	23-24	45	12	51324	23-24	25	20	51324	23-24	41
4	60624	23-24	5	9	50124	23-24	35	12	51524	23-24	23	20	51524	23-24	37
4	60924	23-24	11	9	50324	23-24	42	12	51824	23-24	30	20	51824	23-24	30
4	61224	23-24	3	9	50724	23-24	37	12	52224	23-24	27	20	52224	23-24	41
4	61424	23-24	14	9	50924	23-24	42	12	52424	23-24	27	20	52424	23-24	38
4	61724	23-24	9	9	51124	23-24	41	12	53024	23-24	25	20	52624	23-24	40
5	42124	23-24	14	9	51324	23-24	41	12	60624	23-24	19	20	52824	23-24	42
5	42324	23-24	10	9	51524	23-24	39	12	60924	23-24	19	20	53024	23-24	36
5	42624	23-24	26	9	51824	23-24	42	12	61224	23-24	30	20	60624	23-24	36
5	42824	23-24	19	9	52224	23-24	40	12	61424	23-24	22	20	60924	23-24	40
5	50124	23-24	19	9	52424	23-24	39	12	61724	23-24	24	20	61224	23-24	39
5	50324	23-24	23	9	52624	23-24	42	15	61424	23-24	12	20	61424	23-24	14
5	50724	23-24	27	9	52824	23-24	42	16	42124	23-24	1	20	61724	23-24	35
5	50924	23-24	27	9	53024	23-24	40	16	42624	23-24	3	NULL	NULL	NULL	NULL

Oversees: SELECT * FROM Oversees

P_ID	Staff_ID
1	1234
2	1234
3	1234
4	1234
5	1234
6	1234
7	1234
8	1234
9	1234
10	1234
11	1234
12	1234
13	1234
14	1234
15	1234
16	1234
17	1234
18	1234
19	1234
20	1234
21	1234
NULL	NULL

4. Database Query Execution- Screenshot and Code for each one

PLAYER

SELECT:

```
SELECT Fname,Lname,Height,Experience FROM Player
WHERE Cflag = true
ORDER BY Experience ASC;
```

Screenshot Goes here:

Fname	Lname	Height	Experience
Jamarion	Sharp	2.26	0
Dereck	Lively II	2.16	1
Daniel	Gafford	2.08	10
Dwight	Powell	2.08	10

BASE:

PlayerID	Fname	Minit	Lname	Height	JerseyNo	Experience	Fflag	F_type	Cflag	C_type	Gflag	G_type
1	Spencer	G	Dinwiddie	1.96	26	10	0	NULL	0	NULL	1	PG
2	Luka	D	Doncic	1.98	77	6	0	NULL	0	NULL	1	PG
3	Kessler	D	Edwards	2.01	20	11	1	SF	0	NULL	0	NULL
4	Dante	NULL	Exum	1.96	0	7	0	NULL	0	NULL	1	G
5	Daniel	NULL	Gafford	2.08	21	10	0	NULL	1	C	0	NULL
6	Jazian	NULL	Gortman	1.88	00	0	0	NULL	0	NULL	1	G
7	Quentin	M	Grimes	1.93	5	3	0	NULL	0	NULL	1	SG
8	Jaden	A	Hardy	1.91	1	2	0	NULL	0	NULL	1	B
9	Kyrie	A	Irving	1.88	11	13	0	NULL	0	NULL	1	P
10	Maxi	NULL	Kleber	2.08	42	7	1	PF	0	NULL	0	NULL
11	AJ	NULL	Lawson	1.98	9	2	0	NULL	0	NULL	1	G
12	Dereck	J	Lively II	2.16	2	1	0	NULL	1	C	0	NULL
13	Naji	M	Marshall	1.98	13	4	1	SF	0	NULL	0	NULL
14	Emanuel	NULL	Miller	2.01	3	0	1	F	0	NULL	0	NULL
15	Markieff	NULL	Morris	2.06	88	0	1	PF	0	NULL	0	NULL
16	Dwight	H	Powell	2.08	7	10	0	NULL	1	C	0	NULL
17	Oliver....	NULL	Prosper	2.01	8	1	1	F	0	NULL	0	NULL
18	Jamarion	D	Sharp	2.26	33	0	0	NULL	1	C	0	NULL
19	Klay	A	Thompson	1.96	31	11	0	NULL	0	NULL	1	SG
20	Paul	J	Washin...	1.98	25	5	1	PF	0	NULL	0	NULL
21	Brandon	NULL	Williams	1.85	10	2	0	NULL	0	NULL	1	G
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

INSERT:

```
INSERT INTO Player
(PlayerID,Fname,Minit,Lname,Height,JerseyNo,Experience,Fflag,F_type,Cflag,C_type,Gflag,G_type)
VALUES
(30, 'Wardell', 'S', 'Curry', 1.88, '36', 30, FALSE, NULL, FALSE, NULL, TRUE, 'PG');
```

Screenshot Goes here:

PlayerID	Fname	Minit	Lname	Height	JerseyNo	Experience	Fflag	F_type	Cflag	C_type	Gflag	G_type
1	Spencer	G	Dinwiddie	1.96	26	10	0	NULL	0	NULL	1	PG
2	Luka	D	Doncic	1.98	77	6	0	NULL	0	NULL	1	PG
3	Kessler	D	Edwards	2.01	20	11	1	SF	0	NULL	0	NULL
4	Dante	NULL	Exum	1.96	0	7	0	NULL	0	NULL	1	G
5	Daniel	NULL	Gafford	2.08	21	10	0	NULL	1	C	0	NULL
6	Jazian	NULL	Gortman	1.88	00	0	0	NULL	0	NULL	1	G
7	Quentin	M	Grimes	1.93	5	3	0	NULL	0	NULL	1	SG
8	Jaden	A	Hardy	1.91	1	2	0	NULL	0	NULL	1	B
9	Kyrie	A	Irving	1.88	11	13	0	NULL	0	NULL	1	P
10	Maxi	NULL	Kleber	2.08	42	7	1	PF	0	NULL	0	NULL
11	AJ	NULL	Lawson	1.98	9	2	0	NULL	0	NULL	1	G
12	Dereck	J	Lively II	2.16	2	1	0	NULL	1	C	0	NULL
13	Naji	M	Marshall	1.98	13	4	1	SF	0	NULL	0	NULL
14	Emanuel	NULL	Miller	2.01	3	0	1	F	0	NULL	0	NULL
15	Markieff	NULL	Morris	2.06	88	0	1	PF	0	NULL	0	NULL
16	Dwight	H	Powell	2.08	7	10	0	NULL	1	C	0	NULL
17	Oliver....	NULL	Prosper	2.01	8	1	1	F	0	NULL	0	NULL
18	Jamarion	D	Sharp	2.26	33	0	0	NULL	1	C	0	NULL
19	Klay	A	Thompson	1.96	31	11	0	NULL	0	NULL	1	SG
20	Paul	J	Washin...	1.98	25	5	1	PF	0	NULL	0	NULL
21	Brandon	NULL	Williams	1.85	10	2	0	NULL	0	NULL	1	G
30	Wardell	S	Curry	1.88	36	30	0	NULL	0	NULL	1	PG

UPDATE:

UPDATE Player

SET G_Type = 'SG'

WHERE Fname = 'Wardell';

Screenshot Goes here:

PlayerID	Fname	Minit	Lname	Height	JerseyNo	Experience	Fflag	F_type	Cflag	C_type	Gflag	G_type
1	Spencer	G	Dinwiddie	1.96	26	10	0	NULL	0	NULL	1	PG
2	Luka	D	Doncic	1.98	77	6	0	NULL	0	NULL	1	PG
3	Kessler	D	Edwards	2.01	20	11	1	SF	0	NULL	0	NULL
4	Dante	NULL	Exum	1.96	0	7	0	NULL	0	NULL	1	G
5	Daniel	NULL	Gafford	2.08	21	10	0	NULL	1	C	0	NULL
6	Jazian	NULL	Gortman	1.88	00	0	0	NULL	0	NULL	1	G
7	Quentin	M	Grimes	1.93	5	3	0	NULL	0	NULL	1	SG
8	Jaden	A	Hardy	1.91	1	2	0	NULL	0	NULL	1	B
9	Kyrie	A	Irving	1.88	11	13	0	NULL	0	NULL	1	P
10	Maxi	NULL	Kleber	2.08	42	7	1	PF	0	NULL	0	NULL
11	AJ	NULL	Lawson	1.98	9	2	0	NULL	0	NULL	1	G
12	Derek	J	Lively II	2.16	2	1	0	NULL	1	C	0	NULL
13	Naji	M	Marshall	1.98	13	4	1	SF	0	NULL	0	NULL
14	Emanual	NULL	Miller	2.01	3	0	1	F	0	NULL	0	NULL
15	Markieff	NULL	Morris	2.06	88	0	1	PF	0	NULL	0	NULL
16	Dwight	H	Powell	2.08	7	10	0	NULL	1	C	0	NULL
17	Oliver-...	NULL	Prosper	2.01	8	1	1	F	0	NULL	0	NULL
18	Jamarion	D	Sharp	2.26	33	0	0	NULL	1	C	0	NULL
19	Klay	A	Thompson	1.96	31	11	0	NULL	0	NULL	1	SG
20	Paul	J	Washin...	1.98	25	5	1	PF	0	NULL	0	NULL
21	Brandon	NULL	Williams	1.85	10	2	0	NULL	0	NULL	1	G
30	Wardell	S	Curry	1.88	36	30	0	NULL	0	NULL	1	SG

DELETE:

DELETE FROM Player

WHERE Lname = 'Curry';

Screenshot Goes here:

PlayerID	Fname	Minit	Lname	Height	JerseyNo	Experience	Fflag	F_type	Cflag	C_type	Gflag	G_type
1	Spencer	G	Dinwiddie	1.96	26	10	0	NULL	0	NULL	1	PG
2	Luka	D	Doncic	1.98	77	6	0	NULL	0	NULL	1	PG
3	Kessler	D	Edwards	2.01	20	11	1	SF	0	NULL	0	NULL
4	Dante	NULL	Exum	1.96	0	7	0	NULL	0	NULL	1	G
5	Daniel	NULL	Gafford	2.08	21	10	0	NULL	1	C	0	NULL
6	Jazian	NULL	Gortman	1.88	00	0	0	NULL	0	NULL	1	G
7	Quentin	M	Grimes	1.93	5	3	0	NULL	0	NULL	1	SG
8	Jaden	A	Hardy	1.91	1	2	0	NULL	0	NULL	1	B
9	Kyrie	A	Irving	1.88	11	13	0	NULL	0	NULL	1	P
10	Maxi	NULL	Kleber	2.08	42	7	1	PF	0	NULL	0	NULL
11	AJ	NULL	Lawson	1.98	9	2	0	NULL	0	NULL	1	G
12	Derek	J	Lively II	2.16	2	1	0	NULL	1	C	0	NULL
13	Naji	M	Marshall	1.98	13	4	1	SF	0	NULL	0	NULL
14	Emanual	NULL	Miller	2.01	3	0	1	F	0	NULL	0	NULL
15	Markieff	NULL	Morris	2.06	88	0	1	PF	0	NULL	0	NULL
16	Dwight	H	Powell	2.08	7	10	0	NULL	1	C	0	NULL
17	Oliver-...	NULL	Prosper	2.01	8	1	1	F	0	NULL	0	NULL
18	Jamarion	D	Sharp	2.26	33	0	0	NULL	1	C	0	NULL
19	Klay	A	Thompson	1.96	31	11	0	NULL	0	NULL	1	SG
20	Paul	J	Washin...	1.98	25	5	1	PF	0	NULL	0	NULL
21	Brandon	NULL	Williams	1.85	10	2	0	NULL	0	NULL	1	G
HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL

CONTRACT

SELECT:

Select *

From Contract

Where ContractID = 102

	Py_ID	ContractID	Salary	Duration
1	2	102	215159700.00	5

Base:

	Py_ID	ContractID	Salary	Duration
1	1	101	3303771.00	1
2	2	102	215159700.00	5
3	4	104	6150000.00	2
4	5	105	40182480.00	3
5	6	106	1157153.00	1
6	7	107	11128042.00	4
7	8	108	4757344.00	3
8	9	109	120000000.00	3
9	10	110	33000000.00	3
10	11	111	2048494.00	1
11	12	112	22282691.00	4
12	13	113	27000000.00	3
13	14	114	1157153.00	1
14	15	115	3303771.00	1
15	16	116	12000000.00	3
16	17	117	13870583.00	4
17	18	118	1157153.00	1
18	19	119	50000000.00	3
19	20	120	46500000.00	3

Insert:

Insert Into Contract (Py_ID, ContractID, Salary, Duration)

Values (21, 121, 10000000.00, 4)

Screenshot Goes here:

	Py_ID	ContractID	Salary	Duration
1	1	101	3303771.00	1
2	2	102	215159700.00	5
3	4	104	6150000.00	2
4	5	105	40182480.00	3
5	6	106	1157153.00	1
6	7	107	11128042.00	4
7	8	108	4757344.00	3
8	9	109	120000000.00	3
9	10	110	33000000.00	3
10	11	111	2048494.00	1
11	12	112	22282691.00	4
12	13	113	27000000.00	3
13	14	114	1157153.00	1
14	15	115	3303771.00	1
15	16	116	12000000.00	3
16	17	117	13870583.00	4
17	18	118	1157153.00	1
18	19	119	50000000.00	3
19	20	120	46500000.00	3
20	21	121	10000000.00	4

UPDATE:

Update Contract

Set Duration = 5

Where ContractID = 101

Screenshot Goes here:

	Py_ID	ContractID	Salary	Duration
1	1	101	3303771.00	5
2	2	102	215159700.00	5
3	4	104	6150000.00	2
4	5	105	40182480.00	3
5	6	106	1157153.00	1
6	7	107	11128042.00	4
7	8	108	4757344.00	3
8	9	109	120000000.00	3
9	10	110	33000000.00	3
10	11	111	2048494.00	1
11	12	112	22282691.00	4
12	13	113	27000000.00	3
13	14	114	1157153.00	1
14	15	115	3303771.00	1
15	16	116	12000000.00	3
16	17	117	13870583.00	4
17	18	118	1157153.00	1
18	19	119	50000000.00	3
19	20	120	46500000.00	3

DELETE:

Screenshot Goes here:

Delete From Contract

Where Duration = 1

	Py_ID	ContractID	Salary	Duration
1	1	101	3303771.00	5
2	2	102	215159700.00	5
3	4	104	6150000.00	2
4	5	105	40182480.00	3
5	7	107	11128042.00	4
6	8	108	4757344.00	3
7	9	109	120000000.00	3
8	10	110	33000000.00	3
9	12	112	22282691.00	4
10	13	113	27000000.00	3
11	16	116	12000000.00	3
12	17	117	13870583.00	4
13	19	119	50000000.00	3
14	20	120	46500000.00	3

COACH

SELECT:

```
SELECT Fname,Lname,Start_year FROM Coach
```

```
WHERE Start_year <= 2022
```

```
ORDER BY Start_year ASC;
```

Fname	Lname	Start_year
Darrell	Armstrong	2009
God	Shammgod	2019
Jason	Kidd	2021
Sean	Sweeney	2021
Jared	Dudley	2021
Keith	Veney	2021
Marko	Milić	2022

BASE:

CoachID	Fname	Minit	Lname	Start_year	Super_ID
1	Jason	F	Kidd	2021	NULL
2	Sean	NULL	Sweeney	2021	1
3	Jared	A	Dudley	2021	1
4	Alex	NULL	Jensen	2023	1
5	Eric	NULL	Hughes	2023	1
6	Darrell	E	Armstrong	2009	1
7	Josh	NULL	Broghamer	2023	1
8	Marko	NULL	Milić	2022	1
9	God	NULL	Shammgod	2019	1
10	Keith	M	Veney	2021	1

INSERT:

```
INSERT INTO Coach (CoachID, Fname, Minit, Lname, Start_year, Super_ID) VALUES  
(11, 'Steve', 'D', 'Kerr', 2024, 1);
```

CoachID	Fname	Minit	Lname	Start_year	Super_ID
1	Jason	F	Kidd	2021	NULL
2	Sean	NULL	Sweeney	2021	1
3	Jared	A	Dudley	2021	1
4	Alex	NULL	Jensen	2023	1
5	Eric	NULL	Hughes	2023	1
6	Darrell	E	Armstrong	2009	1
7	Josh	NULL	Broghamer	2023	1
8	Marko	NULL	Milić	2022	1
9	God	NULL	Shammgod	2019	1
10	Keith	M	Veney	2021	1
11	Steve	D	Kerr	2024	1

UPDATE:

UPDATE Coach

SET Start_year = 2025

WHERE CoachID= 11;

CoachID	Fname	Minit	Lname	Start_year	Super_ID
1	Jason	F	Kidd	2021	NULL
2	Sean	NULL	Sweeney	2021	1
3	Jared	A	Dudley	2021	1
4	Alex	NULL	Jensen	2023	1
5	Eric	NULL	Hughes	2023	1
6	Darrell	E	Armstrong	2009	1
7	Josh	NULL	Broghamer	2023	1
8	Marko	NULL	Milić	2022	1
9	God	NULL	Shammgod	2019	1
10	Keith	M	Veney	2021	1
11	Steve	D	Kerr	2025	1

DELETE:

DELETE FROM Coach

Where CoachID = 11;

CoachID	Fname	Minit	Lname	Start_year	Super_ID
1	Jason	F	Kidd	2021	NULL
2	Sean	NULL	Sweeney	2021	1
3	Jared	A	Dudley	2021	1
4	Alex	NULL	Jensen	2023	1
5	Eric	NULL	Hughes	2023	1
6	Darrell	E	Armstrong	2009	1
7	Josh	NULL	Broghamer	2023	1
8	Marko	NULL	Milić	2022	1
9	God	NULL	Shammgod	2019	1
10	Keith	M	Veney	2021	1

TRAINS

SELECT:

Select * From Trains

Where Ch_ID = 1

	P_ID	Ch_ID	Train_type
1	2	1	Leadership
2	11	1	Playmaking

BASE:

	P_ID	Ch_ID	Train_type
1	1	9	Ball Handling
2	2	1	Leadership
3	3	2	Defense
4	4	3	Player Development
5	5	4	Shooting
6	6	5	Strength & Conditioning
7	7	6	Motivation
8	8	7	Scouting & Analysis
9	9	8	Player Development
10	10	10	Shooting
11	11	1	Playmaking

INSERT:

Insert Into Trains (P_ID, Ch_ID, Train_Type)

Values

(11, 1, 'Motivation')

	P_ID	Ch_ID	Train_type
1	1	9	Ball Handling
2	2	1	Leadership
3	3	2	Defense
4	4	3	Player Development
5	5	4	Shooting
6	6	5	Strength & Conditioning
7	7	6	Motivation
8	8	7	Scouting & Analysis
9	9	8	Player Development
10	10	10	Shooting
11	11	1	Motivation

UPDATE:

Update Trains

Set Train_type = 'Motivation'

Where Ch_ID = 9

	P_ID	Ch_ID	Train_type
1	1	9	Motivation
2	2	1	Leadership
3	3	2	Defense
4	4	3	Player Development
5	5	4	Shooting
6	6	5	Strength & Conditioning
7	7	6	Motivation
8	8	7	Scouting & Analysis
9	9	8	Player Development
10	10	10	Shooting
11	11	1	Motivation

DELETE:

Delete From Trains

Where Train_type = 'Playmaking'

	P_ID	Ch_ID	Train_type
1	1	9	Ball Handling
2	2	1	Leadership
3	3	2	Defense
4	4	3	Player Development
5	5	4	Shooting
6	6	5	Strength & Conditioning
7	7	6	Motivation
8	8	7	Scouting & Analysis
9	9	8	Player Development
10	10	10	Shooting

TEAMS COACHED

SELECT:

Select * From Teams_Coached
Where T_coached = 'Dallas Mavericks'

	C_ID	T_coached
1	1	Dallas Mavericks
2	2	Dallas Mavericks
3	3	Dallas Mavericks
4	4	Dallas Mavericks
5	5	Dallas Mavericks
6	6	Dallas Mavericks
7	7	Dallas Mavericks
8	8	Dallas Mavericks
9	9	Dallas Mavericks
10	10	Dallas Mavericks

BASE:

	C_ID	T_coached
1	1	Brooklyn Nets
2	1	Dallas Mavericks
3	1	Milwaukee Bucks
4	2	Dallas Mavericks
5	2	Detroit Pistons
6	2	Milwaukee Bucks
7	3	Dallas Mavericks
8	4	Dallas Mavericks
9	4	Utah Jazz
10	5	Brooklyn Nets
11	5	Dallas Mavericks
12	5	Milwaukee Bucks
13	5	Philadelphia 76...
14	6	Dallas Mavericks
15	7	Cleveland Cava...
16	7	Dallas Mavericks
17	8	Dallas Mavericks
18	8	Slovenian Natio...
19	9	Dallas Mavericks
20	10	Dallas Mavericks

INSERT:

Insert Into Teams_coached (C_ID, T_coached)
Values (10, 'Utah Jazz')

	C_ID	T_coached
1	1	Brooklyn Nets
2	1	Dallas Mavericks
3	1	Milwaukee Bucks
4	2	Dallas Mavericks
5	2	Detroit Pistons
6	2	Milwaukee Bucks
7	3	Dallas Mavericks
8	4	Dallas Mavericks
9	4	Utah Jazz
10	5	Brooklyn Nets
11	5	Dallas Mavericks
12	5	Milwaukee Bucks
13	5	Philadelphia 76...
14	6	Dallas Mavericks
15	7	Cleveland Cava...
16	7	Dallas Mavericks
17	8	Dallas Mavericks
18	8	Slovenian Natio...
19	9	Dallas Mavericks
20	10	Utah Jazz

UPDATE:

Update Teams_Coached

Set T_coached = 'Los Angeles Lakers'

Where T_coached = 'Brooklyn Nets'

	C_ID	T_coached
1	1	Dallas Mavericks
2	1	Los Angeles Lakers
3	1	Milwaukee Bucks
4	2	Dallas Mavericks
5	2	Detroit Pistons
6	2	Milwaukee Bucks
7	3	Dallas Mavericks
8	4	Dallas Mavericks
9	4	Utah Jazz
10	5	Dallas Mavericks
11	5	Los Angeles Lakers
12	5	Milwaukee Bucks
13	5	Philadelphia 76ers
14	6	Dallas Mavericks
15	7	Cleveland Cavaliers
16	7	Dallas Mavericks
17	8	Dallas Mavericks
18	8	Slovenian Nationa...
19	9	Dallas Mavericks
20	10	Utah Jazz

DELETE:

Delete From Teams_Coached

Where C_ID = 10

	C_ID	T_coached
1	1	Brooklyn Nets
2	1	Dallas Mavericks
3	1	Milwaukee Bucks
4	2	Dallas Mavericks
5	2	Detroit Pistons
6	2	Milwaukee Bucks
7	3	Dallas Mavericks
8	4	Dallas Mavericks
9	4	Utah Jazz
10	5	Brooklyn Nets
11	5	Dallas Mavericks
12	5	Milwaukee Bucks
13	5	Philadelphia 76ers
14	6	Dallas Mavericks
15	7	Cleveland Cavaliers
16	7	Dallas Mavericks
17	8	Dallas Mavericks
18	8	Slovenian National Team
19	9	Dallas Mavericks

GAMES

SELECT:

Select * From Games

Where Location = ‘Paycom Center’

	Game_number	Season	Opponent	Location
1	50724	23-24	OKC	Paycom Center
2	50924	23-24	OKC	Paycom Center
3	51524	23-24	OKC	Paycom Center

Base:

	Game_number	Season	Opponent	Location
1	42124	23-24	LA	Crypto.com Arena
2	42324	23-24	LA	Crypto.com Arena
3	42624	23-24	LA	American Airlines Center
4	42824	23-24	LA	American Airlines Center
5	50124	23-24	LA	Crypto.com Arena
6	50324	23-24	LA	American Airlines Center
7	50724	23-24	OKC	Paycom Center
8	50924	23-24	OKC	Paycom Center
9	51124	23-24	OKC	American Airlines Center
10	51324	23-24	OKC	American Airlines Center
11	51524	23-24	OKC	Paycom Center
12	51824	23-24	OKC	American Airlines Center
13	52224	23-24	MIN	Target Center
14	52424	23-24	MIN	Target Center
15	52624	23-24	MIN	American Airlines Center
16	52824	23-24	MIN	American Airlines Center
17	53024	23-24	MIN	Target Center
18	60624	23-24	BOS	TD Garden
19	60924	23-24	BOS	TD Garden
20	61224	23-24	BOS	American Airlines Center
21	61424	23-24	BOS	American Airlines Center
22	61724	23-24	BOS	TD Garden

INSERT:

Insert Into Games (Game_number, Season, Opponent, Location)

Values

(61727, 24-24, ‘BOS’, ‘American Airlines Center’)

	Game_number	Season	Opponent	Location
13	52224	23-24	MIN	Target Center
14	52424	23-24	MIN	Target Center
15	52624	23-24	MIN	American Airlines Center
16	52824	23-24	MIN	American Airlines Center
17	53024	23-24	MIN	Target Center
18	60624	23-24	BOS	TD Garden
19	60924	23-24	BOS	TD Garden
20	61224	23-24	BOS	American Airlines Center
21	61424	23-24	BOS	American Airlines Center
22	61724	23-24	BOS	TD Garden
23	61727	24-24	BOS	American Airlines Center

UPDATE:

Update Games

Set Season = '22-23'

Where Game_number = 61724

	Game_number	Season	Opponent	Location
13	52224	23-24	MIN	Target Center
14	52424	23-24	MIN	Target Center
15	52624	23-24	MIN	American Airlines Center
16	52824	23-24	MIN	American Airlines Center
17	53024	23-24	MIN	Target Center
18	60624	23-24	BOS	TD Garden
19	60924	23-24	BOS	TD Garden
20	61224	23-24	BOS	American Airlines Center
21	61424	23-24	BOS	American Airlines Center
22	61724	22-23	BOS	TD Garden
23	61727	24-24	BOS	American Airlines Center

DELETE:

Delete From Games

Where Opponent = 'LA'

	Game_number	Season	Opponent	Location
1	50724	23-24	OKC	Paycom Center
2	50924	23-24	OKC	Paycom Center
3	51124	23-24	OKC	American Airlines Center
4	51324	23-24	OKC	American Airlines Center
5	51524	23-24	OKC	Paycom Center
6	51824	23-24	OKC	American Airlines Center
7	52224	23-24	MIN	Target Center
8	52424	23-24	MIN	Target Center
9	52624	23-24	MIN	American Airlines Center
10	52824	23-24	MIN	American Airlines Center
11	53024	23-24	MIN	Target Center
12	60624	23-24	BOS	TD Garden
13	60924	23-24	BOS	TD Garden
14	61224	23-24	BOS	American Airlines Center
15	61424	23-24	BOS	American Airlines Center
16	61724	22-23	BOS	TD Garden
17	61727	24-24	BOS	American Airlines Center

PLAYED IN

SELECT:

Select * From Played_In

Where play_id = 2

	Play_id	GNum	Sn	Min_played
1	2	42124	23-24	43
2	2	42324	23-24	46
3	2	42624	23-24	40
4	2	42824	23-24	45
5	2	50124	23-24	40
6	2	50324	23-24	43
7	2	50724	23-24	41
8	2	50924	23-24	41
9	2	51124	23-24	40
10	2	51324	23-24	42
11	2	51524	23-24	42
12	2	51824	23-24	45
13	2	52224	23-24	41
14	2	52424	23-24	41
15	2	52624	23-24	41
16	2	52824	23-24	41
17	2	53024	23-24	36
18	2	60624	23-24	38
19	2	60924	23-24	42
20	2	61224	23-24	38
21	2	61424	23-24	32
22	2	61724	23-24	43

BASE:

	Play_id	GNum	Sn	Min_played
1	2	42124	23-24	60
2	2	42624	23-24	40
3	2	42824	23-24	45
4	2	50124	23-24	40
5	2	50324	23-24	43
6	2	50724	23-24	41
7	2	50924	23-24	41
8	2	51124	23-24	40
9	2	51324	23-24	42
10	2	51524	23-24	42
11	2	51824	23-24	45
12	2	52224	23-24	41
13	2	52424	23-24	41
14	2	52624	23-24	41
15	2	52824	23-24	41
16	2	53024	23-24	36
17	2	60624	23-24	38
18	2	60924	23-24	42
19	2	61224	23-24	38
20	2	61424	23-24	32
21	2	61724	23-24	43
22	4	42124	23-24	60
23	4	42324	23-24	6
24	4	42624	23-24	12
25	4	42824	23-24	2
26	4	50124	23-24	10

INSERT:

Insert Into Played_In (Play_id, GNum, Sn, Min_Played)

Values

(21, 61724, 23-24, 50)

	Play_id	GNum	Sn	Min_played
181	20	52424	23-24	38
182	20	52624	23-24	40
183	20	52824	23-24	42
184	20	53024	23-24	36
185	20	60624	23-24	36
186	20	60924	23-24	40
187	20	61224	23-24	39
188	20	61424	23-24	14
189	20	61724	23-24	35
190	21	61724	-1	50

UPDATE:

Update Played_In

Set Min_played = 60

Where Gnum = 42124

	Play_id	GNum	Sn	Min_played
1	2	42124	23-24	60
2	2	42324	23-24	46
3	2	42624	23-24	40
4	2	42824	23-24	45
5	2	50124	23-24	40
6	2	50324	23-24	43
7	2	50724	23-24	41
8	2	50924	23-24	41
9	2	51124	23-24	40
10	2	51324	23-24	42
11	2	51524	23-24	42
12	2	51824	23-24	45
13	2	52224	23-24	41
14	2	52424	23-24	41
15	2	52624	23-24	41
16	2	52824	23-24	41
17	2	53024	23-24	36
18	2	60624	23-24	38
19	2	60924	23-24	42
20	2	61224	23-24	38
21	2	61424	23-24	32
22	2	61724	23-24	43
23	4	42124	23-24	60
24	4	42324	23-24	6
25	4	42624	23-24	12

DELETE:

Delete From Played_In

Where Min_Played = 46

	Play_id	GNum	Sn	Min_played
1	2	42124	23-24	60
2	2	42624	23-24	40
3	2	42824	23-24	45
4	2	50124	23-24	40
5	2	50324	23-24	43
6	2	50724	23-24	41
7	2	50924	23-24	41
8	2	51124	23-24	40
9	2	51324	23-24	42
10	2	51524	23-24	42
11	2	51824	23-24	45
12	2	52224	23-24	41
13	2	52424	23-24	41
14	2	52624	23-24	41
15	2	52824	23-24	41
16	2	53024	23-24	36
17	2	60624	23-24	38
18	2	60924	23-24	42
19	2	61224	23-24	38
20	2	61424	23-24	32
21	2	61724	23-24	43
22	4	42124	23-24	60
23	4	42324	23-24	6
24	4	42624	23-24	12
25	4	42824	23-24	2
26	4	50124	23-24	10

EXEC MEMBERS

SELECT:

```
SELECT Fname, Lname  
FROM Executive_Staff  
Where Operation_type = 'Brand'
```

	Results	Messages
	Fname	Lname
1	Alison	Panasik

BASE:

Fname	Lname	Position	Operation_type
Donn	Nelson	General Manager	Basketball Operations
Ronnie	Fauss	Chief Strategy Officer	Business Development
Sekou	Lewis	General Counsel	Counsel
Greg	nared	SVP Player Relations	Player Relations
Theo	Hodges	SVP Ticket Sales	Ticker sales
Candice	Coleman	Chief of Staff	Staff Management
Billy	Phillips	VP Corporate Sponsorship	Sponsorship
Scott	Powers	Director	Information Technology
Alison	Panasik	VP Brand Identity	Brand
Cynt	Marshall	CEO	Business Operations

INSERT:

```
INSERT INTO Executive_Staff (StaffID, Fname, Minit, Lname, Position, Operation_type)  
VALUES  
(6873, 'John', 'A', 'Doe', 'Operations Manager', 'Logistics');
```

Fname	Lname	Position	Operation_type
Donn	Nelson	General Manager	Basketball Operations
Ronnie	Fauss	Chief Strategy Officer	Business Development
Sekou	Lewis	General Counsel	Counsel
Greg	nared	SVP Player Relations	Player Relations
Theo	Hodges	SVP Ticket Sales	Ticker sales
Candice	Coleman	Chief of Staff	Staff Management
John	Doe	Operations Manager	Logistics
Billy	Phillips	VP Corporate Sponsorship	Sponsorship
Scott	Powers	Director	Information Technology
Alison	Panasik	VP Brand Identity	Brand
Cynt	Marshall	CEO	Business Operations

UPDATE:

UPDATE Executive_Staff

SET Position = 'Head Software Developer'

Where StaffID= 6873;

Fname	Lname	Position	Operation_type
Donn	Nelson	General Manager	Basketball Operations
Ronnie	Fauss	Chief Strategy Officer	Business Development
Sekou	Lewis	General Counsel	Counsel
Greg	nared	SVP Player Relations	Player Relations
Theo	Hodges	SVP Ticket Sales	Ticker sales
Candice	Coleman	Chief of Staff	Staff Management
John	Doe	Head Software Developer	Logistics
Billy	Phillips	VP Corporate Sponsorship	Sponsorship
Scott	Powers	Director	Information Technology
Alison	Panasik	VP Brand Identity	Brand
Cynt	Marshall	CEO	Business Operations

DELETE:

DELETE FROM Executive_Staff

Where Position = 'Head Software Developer';

Fname	Lname	Position	Operation_type
Donn	Nelson	General Manager	Basketball Operations
Ronnie	Fauss	Chief Strategy Officer	Business Development
Sekou	Lewis	General Counsel	Counsel
Greg	nared	SVP Player Relations	Player Relations
Theo	Hodges	SVP Ticket Sales	Ticker sales
Candice	Coleman	Chief of Staff	Staff Management
Billy	Phillips	VP Corporate Sponsorship	Sponsorship
Scott	Powers	Director	Information Technology
Alison	Panasik	VP Brand Identity	Brand
Cynt	Marshall	CEO	Business Operations

Oversees

SELECT:

Select *

From Oversees

Where P_ID = 2

Results Messages

	P_ID	Staff_ID
1	2	1234

BASE:

P_ID Staff_ID

1	1234
2	1234
3	1234
4	1234
5	1234
6	1234
7	1234
8	1234
9	1234
10	1234
11	1234
12	1234
13	1234
14	1234
15	1234
16	1234
17	1234
18	1234
19	1234
20	1234
21	1234

INSERT:

INSERT INTO Oversees (P_ID, Staff_ID) VALUES
(11,7891);

P_ID Staff_ID

1	1234
2	1234
3	1234
4	1234
5	1234
6	1234
7	1234
8	1234
9	1234
10	1234
11	1234
12	1234
13	1234
14	1234
15	1234
16	1234
17	1234
18	1234
19	1234
20	1234
21	1234
11	7891

UPDATE:

UPDATE Oversees

SET P_ID = 12

WHERE Staff_ID= 7891;

P_ID	Staff_ID
1	1234
2	1234
3	1234
4	1234
5	1234
6	1234
7	1234
8	1234
9	1234
10	1234
11	1234
12	1234
13	1234
14	1234
15	1234
16	1234
17	1234
18	1234
19	1234
20	1234
21	1234
12	7891

DELETE:

DELETE FROM Oversees

Where P_ID = 12 and Staff_ID =7891;

P_ID	Staff_ID
1	1234
2	1234
3	1234
4	1234
5	1234
6	1234
7	1234
8	1234
9	1234
10	1234
11	1234
12	1234
13	1234
14	1234
15	1234
16	1234
17	1234
18	1234
19	1234
20	1234
21	1234

5. Create View:

```
CREATE VIEW HighSalaryPlayers AS
SELECT
    p.PlayerID,
    p.Fname,
    p.Minit,
    p.Lname,
    p.Height,
    p.JerseyNo,
    p.Experience,
    c.Salary
FROM
    Player p
INNER JOIN
    Contract c
ON
    p.PlayerID = c.Py_ID
WHERE
    c.Salary > 14000000;
```

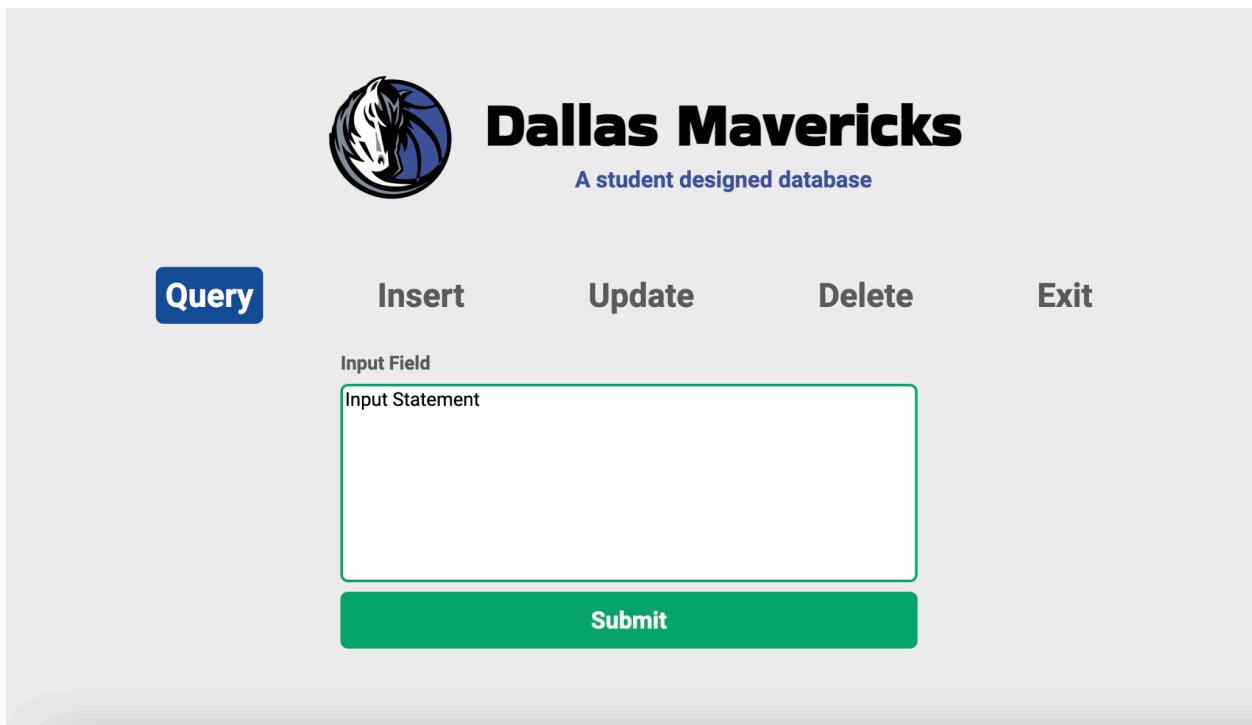
PlayerID	Fname	Minit	Lname	Height	JerseyNo	Experience	Salary
2	Luka	D	Doncic	1.98	77	6	215159700.00
5	Daniel	NULL	Gafford	2.08	21	10	40182480.00
9	Kyrie	A	Irving	1.88	11	13	120000000.00
10	Maxi	NULL	Kleber	2.08	42	7	33000000.00
12	Dereck	J	Lively II	2.16	2	1	22282691.00
13	Naji	M	Marshall	1.98	13	4	27000000.00
19	Klay	A	Thompson	1.96	31	11	50000000.00
20	Paul	J	Washington	1.98	25	5	46500000.00

Front End User Interface:

Tech Stack:

We've decided to host our Postgres server on Supabase, enabling a direct connection to our database for efficient and seamless communication with the server. On the front-end, we're building our website using React to ensure a modern and responsive user experience.

FRONT END DESIGN:



SELECT/QUERY:

Before Query:



Dallas Mavericks
A student designed database

Query **Insert** **Update** **Delete** **Exit**

Input Field

```
SELECT * FROM Players
```

Submit

After Query:



Dallas Mavericks
A student designed database

Query **Insert** **Update** **Delete** **Exit**

playerid	fname	minit	lname	height	jerseyno	experience	fflag	t_type	cflag	c_type	gflag	g_type
1	Spencer	G	Dinwiddie	1.96	26	10						PG
2	Luke	D	Doncic	1.98	77	5						PG
3	Kessler	D	Edwards	2.01	20	11	SF					
4	Dante		Exum	1.96	0	7						G
5	Daniel		Gafford	2.08	21	10		C				
6	Jazian		Gortman	1.88	00	0						G
7	Quentin	M	Grimes	1.93	5	3						SG
8	Jaden	A	Hardy	1.91	1	2						G
9	Kyne	A	Irving	1.88	11	13						P
10	Maxi		Kleber	2.08	42	7	PF					
11	AJ		Lawson	1.98	9	2						G
12	Dereck	J	Lively II	2.16	2	1		C				
13	Naji	M	Marshall	1.98	13	4	SF					
14	Emanuel		Miller	2.01	3	0	F					
15	Markieff		Morris	2.06	88	0	PF					
16	Dwight	H	Powell	2.08	7	10		C				
17	Oliver-Maxence		Prosper	2.01	8	1	F					
18	Jamarion	D	Sharp	2.26	83	0		C				
19	Klay	A	Thompson	1.96	31	11						SG
20	Paul	J	Washington	1.98	25	5	PF					
21	Brandon		Williams	1.85	10	2						G

INSERT:

Before Query:



Dallas Mavericks
A student designed database

Query **Insert** Update Delete Exit

Input Field

```
INSERT INTO Player (PlayerID, Fname, Minit, Lname, Height, JerseyNo, Experience, Fflag, F_type, Cflag, C_type, Gflag, G_type)
VALUES(30, 'Wardell', 'S', 'Curry', 1.88, '36', 30, FALSE, NULL, FALSE, NULL, TRUE, 'PG');
```

Submit

After Query:



Dallas Mavericks
A student designed database

Query **Insert** Update Delete Exit

Input Field

```
INSERT INTO Player (PlayerID, Fname, Minit, Lname, Height, JerseyNo, Experience, Fflag, F_type, Cflag, C_type, Gflag, G_type)
VALUES(30, 'Wardell', 'S', 'Curry', 1.88, '36', 30, FALSE, NULL, FALSE, NULL, TRUE, 'PG');
```

Submit

Confirmed!

UPDATE:

Before Query:



Dallas Mavericks
A student designed database

Query Insert **Update** Delete Exit

Input Field

```
UPDATE Player  
SET G_Type = 'SG'  
WHERE Fname = 'Wardell';
```

Submit

After Query:



Dallas Mavericks
A student designed database

Query Insert **Update** Delete Exit

Input Field

```
UPDATE Player  
SET G_Type = 'SG'  
WHERE Fname = 'Wardell';
```

Submit

Confirmed!

DELETE:

Before Query:



Dallas Mavericks
A student designed database

Query Insert Update **Delete** Exit

Input Field

```
DELETE FROM Player WHERE Lname = 'Curry';
```

Submit

After Query:



Dallas Mavericks
A student designed database

Query Insert Update **Delete** Exit

Input Field

```
DELETE FROM Player WHERE Lname = 'Curry';
```

Submit

Confirmed!

CONCLUSION/FUTURE WORK:

This project successfully developed a comprehensive database system for the Dallas Mavericks organization. The system integrates data on players, games, coaches, contracts, and executive staff, providing a holistic view of the organization. Detailed modeling of relationships between entities allows for a deeper understanding of organizational dynamics and facilitates data-driven insights. By focusing exclusively on the Mavericks, this database provides a specialized tool for fans, analysts, and potentially the team itself. In the future, we could possibly expand the scope. We could incorporate additional data types like advanced player metrics, historical comparisons, and fan engagement statistics. We can improve the user interface by developing a more user-friendly front-end for real-time query execution and visualization. We can work on the integration by linking the database with external APIs (e.g., NBA stats) for real-time data updates. We might be able to do some machine learning integration and use the data for predictive analytics, such as player performance forecasting or game outcome predictions. Finally, we could adjust the deployment, hosting the database on a cloud platform for accessibility and scalability.

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Note: The numbered references were used in the Background information section, the ones that are not are used for