**Database Design Coursework Template**

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**Scenario Topic Name:** Football Club Management System

**Scenario**: In the Sports Club Management System, the Players entity tracks player details like ID, name, email, and height. The Managers entity includes manager ID and email. The Clubs entity records club details such as club ID, name, stadium, and location. The Employees entity keeps track of employee ID and surname. The Matches entity organizes match details with attributes like match ID, date, and time. The Match Events entity logs events during matches, including event ID, type, and timestamp. The Coaches entity manages coach information with attributes like coach ID and name. This system ensures efficient management of all club-related data.

**Example queries** (Minimum 5 – list, who, which, how many, most, fewest etc. - check that your models have the attributes needed to answer the queries)

1. List all players in the database.
2. List all clubs and their locations.
3. Who are the employees associated with a specific club?
4. Who are the managers in the database?
5. Which players have a fitness level above 80?
6. Which clubs have a stadium capacity greater than 50,000?
7. How many matches have been recorded in the Match\_Event entity?
8. How many employees are there in total?
9. Which club has the most players?
10. Which match had the most attendance?
11. Which club has the fewest employees?
12. Which player has the fewest match event recorded?

**Entity Relationship Model** (insert a jpg image of your model exported from Visual Paradigm in the space below).

Insert your jpg image here

A computer screen shot of a diagram

Description automatically generated

**Relational Model Tables**

* Copy and paste the table below for as many relational tables as you need
* Replace the placeholder names (table-name1, attribute-name5 etc) with the table and attribute names you derived from your ER model
* List primary key attributes first
* Add new rows to the tables (in the correct place) as needed
* Delete any unnecessary rows (attribute rows and foreign key rows if not used)
* Primary keys are to be specified in the format PRIMARY KEY (attribute-name1, attribute-name2, etc)
* Foreign keys are to be specified in the format ‘FOREIGN KEY (attribute-name) REFERENCES table-name (attribute-name)

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| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Clubs |  |
| **Attributes** |  |
| Clubs\_ID |  |
| Name |  |
| Financial\_stability |  |
| Infrastructure |  |
| Player\_recruitment |  |
| **PRIMARY KEY** (Clubs\_ID) |  |
| **FOREIGN KEY** (Clubs\_Stadium\_ID) REFERENCES Clubs\_Stadium (Club\_stadium\_ID) |  |

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| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Players |  |
| **Attributes** |  |
| Employees\_ID |  |
| Name |  |
| Tactical\_skills |  |
| Work\_Ethic |  |
| **PRIMARY KEY** (Employees\_ID) |  |
| **FOREIGN KEY** (Employees\_ID) REFERENCES Employees (Employees\_ID) |  |

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| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Employees |  |
| **Attributes** |  |
| Employee\_ID |  |
| Name |  |
| Surname |  |
| Clubs\_ID |  |
| **PRIMARY KEY** (Employee\_ID) |  |
| **FOREIGN KEY** (Clubs\_ID) REFERENCES Clubs (Clubs\_ID) |  |

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| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Clubs\_Match\_Event |  |
| **Attributes** |  |
| ClubsClub\_ID |  |
| MatchEventMatch\_ID |  |
| **PRIMARY KEY** ( ClubsClub\_ID , MatchEventMatch\_ID ) |  |
| **FOREIGN KEY** (ClubsClub\_ID) REFERENCES Clubs (ClubsClub\_ID) |  |
| **FOREIGN KEY** (MatchEventMatch\_ID) REFERENCES Match\_Event (MatchEventMatch\_ID) |  |

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| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Match\_Event |  |
| **Attributes** |  |
| Match\_Event\_ID |  |
| Date |  |
| Time |  |
| Attendance |  |
| Referee |  |
| **PRIMARY KEY** (Match\_Event\_ID) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Club\_stadium |  |
| **Attributes** |  |
| Club\_stadium\_ID |  |
| Name |  |
| Capacity |  |
| Location |  |
| **PRIMARY KEY** ( Club\_stadium\_ID ) |  |
| **FOREIGN KEY** (Clubs\_ID) REFERENCES Clubs (Clubs\_ID) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Coaches |  |
| **Attributes** |  |
| Employees\_ID |  |
| Name |  |
| Communication\_Skill |  |
| ClubsClub\_ID |  |
| CoachesEmployees\_ID |  |
| **PRIMARY KEY** (Employees\_ID) |  |
| **FOREIGN KEY** (CoachesEmployees\_ID) REFERENCES Coaches (CoachesEmployees\_ID) |  |

|  |  |
| --- | --- |
| **Relational table specification** | **Marker’s corrections (Do not write in this column)** |
| **Table name:** Manager |  |
| **Attributes** |  |
| Manager\_ID |  |
| Name |  |
| Experience |  |
| Analytical\_Skills |  |
| ClubsClub\_ID |  |
| **PRIMARY KEY** (Employees\_ID) |  |
| **FOREIGN KEY** (Employees\_ID) REFERENCES Employees (Employees\_ID) |  |

**Marker’s Comments** (Do not write in this section)

**Important:** Please note that marker’s corrections to your relational tables are there to help you construct a working database for the second coursework. They are not the determinant of your mark. For more information on how your work is assessed see the coursework specification and grade related criteria.

**Coursework Mark** (100 marks available):