

## CPSC 304

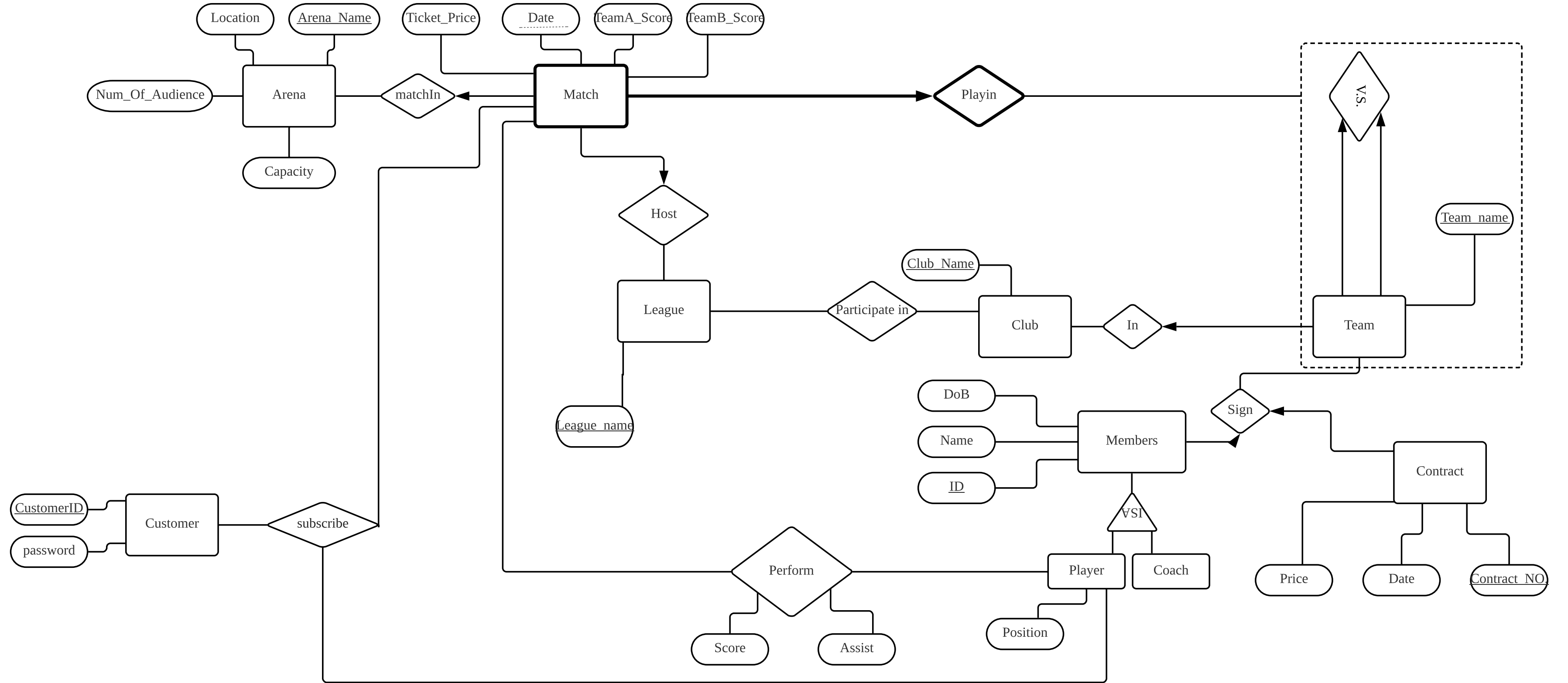
**Cover Page for Project Part**  
**Project Design (E/R Diagram, Schemas, Normalization)**  
**Date: 2018/10/14**

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By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above.

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia



1.Arena (Arena\_Name, Location, Capacity)

Arena -> Location, Capacity

2.Match (Date, TeamA\_name, TeamA\_Score, TeamB\_name, TeamB\_Score, Areana\_Name, Ticket\_Price, Num\_Of\_Audience, League\_name)

Date, TeamA\_name -> TeamA\_Score, TeamB\_name, TeamB\_Score, Areana\_Name, Ticket\_Price,  
Num\_Of\_Audience, League\_name

Date, TeamB\_name -> TeamA\_Score, TeamA\_name, TeamB\_Score, Areana\_Name, Ticket\_Price,  
Num\_Of\_Audience, League\_name

3.Perform(Date, Player\_ID, Score, Assist)

Date, Player\_ID -> Score, Assist

4.Customer (Customer\_ID, password)

Customer\_ID -> password

5.League (League\_name)

NO FDs

6.Club (Club\_Name)

NO FDs

7.ClubParticipateIn ( Club\_Name, League\_name)

NO FDs

8.TeamIn(Team\_name, Club\_Name)

Team\_name -> Club\_Name

9.V.S.(Team\_name1, Team\_name2)

NO FDs

10.PlayerSignContract(Player\_ID, DoB, Position, name, Contract\_NO, Team\_name)

Player\_ID->DoB, Position, name, Contract\_NO, Team\_name

Contract\_NO->Player\_ID, DoB, Position, name, Team\_name

11.CoachSignContract(Coach\_ID, DoB, name, Contract\_NO, Team\_name)

Coach\_ID -> DoB, name, Contract\_NO, Team\_name

Contract\_NO.->Coach\_ID, DoB, name, Team\_name

12.Contract(Contract\_NO, date, price)

Contract\_NO->date, price

13.CustomerSubscribePlayer(Customer\_ID, Player\_ID)

NO FDs

14.CustomerSubscribeMatch(Customer\_ID, Date, Team\_name)

NO FDs

1. Arena Table:

```
1      CREATE TABLE arena(  
2          arena_name      CHAR(50)          NOT NULL,  
3          location        CHAR(100),  
4          capacity        INTEGER,  
5          PRIMARY KEY (arena_name)  
6      );
```

2. Match Table:

```
1      CREATE TABLE match(  
2          date            DATE              NOT NULL,  
3          teamA_name      CHAR(50)         NOT NULL,  
4          teamA_score     INTEGER,  
5          teamB_name      CHAR(50)         NOT NULL,  
6          teamB_score     INTEGER,  
7          arena_name      CHAR(50),  
8          ticket_price    INTEGER,  
9          num_of_audience INTEGER,  
10         league_name     CHAR(50),  
11         PRIMARY KEY (date, teamA_name, teamB_name),  
12         FOREIGN KEY (teamA_name, teamB_name) REFERENCES TeamIn  
13             ON DELETE SET NULL  
14             ON UPDATE CASCADE,  
15         FOREIGN KEY (arena_name) REFERENCES Arena  
16             ON DELETE NO ACTION  
17             ON UPDATE CASCADE,  
18         FOREIGN KEY (league_name) REFERENCES League  
19             ON DELETE NO ACTION  
20             ON UPDATE CASCADE,  
21     );
```

3. Perform Table:

```
1      CREATE TABLE perform(  
2          date            DATE              NOT NULL,  
3          teamA_name      CHAR(50)         NOT NULL,  
4          teamB_name      CHAR(50)         NOT NULL,  
5          player_id       INTEGER          NOT NULL,  
6          score           INTEGER,  
7          assist          INTEGER,  
8          PRIMARY KEY (date, teamA_name, teamB_name, player_id)  
9      );
```

4. Customer Table:

```
1      CREATE TABLE customer(  
2          customer_id     INTEGER          NOT NULL,  
3          password        CHAR(30)        NOT NULL,  
4          PRIMARY KEY (customer_id)  
5      );
```

5. League Table:

```

1      CREATE TABLE league(
2          league_name      CHAR(50)          NOT NULL,
3          PRIMARY KEY (league_name)
4      );

```

#### 6. Club Table:

```

1      CREATE TABLE club(
2          club_name        CHAR(50)          NOT NULL,
3          PRIMARY KEY (club_name)
4      );

```

#### 7. ClubParticipateIn Table:

```

1      CREATE TABLE ClubParticipateIn(
2          club_name        CHAR(50)          NOT NULL,
3          league_name      CHAR(50)          NOT NULL,
4          PRIMARY KEY (club_name, league_name),
5          FOREIGN KEY (club_name) REFERENCES Club
6              ON DELETE CASCADE
7              ON UPDATE CASCADE,
8          FOREIGN KEY (league_name) REFERENCES League
9              ON DELETE CASCADE
10             ON UPDATE CASCADE
11      );

```

#### 8. TeamIn Table:

```

1      CREATE TABLE TeamIn(
2          team_name        CHAR(50)          NOT NULL,
3          club_name        CHAR(50)          NOT NULL,
4          PRIMARY KEY (team_name, club_name),
5          FOREIGN KEY (club_name) REFERENCES Club
6              ON DELETE CASCADE
7              ON UPDATE CASCADE
8      );

```

#### 9. VS Table:

```

1      CREATE TABLE VS(
2          teamA_name       CHAR(50)          NOT NULL,
3          teamB_name       CHAR(50)          NOT NULL,
4          PRIMARY KEY (teamA_name, teamB_name),
5          FOREIGN KEY (teamA_name, teamB_name) REFERENCES Team
6              ON DELETE CASCADE
7              ON UPDATE CASCADE
8      );

```

#### 10. PlayerSignContract Table:

```

1      CREATE TABLE PlayerSignContract(
2          player_id        INTEGER          NOT NULL,
3          dob              DATE,

```

```

4      position          CHAR(50),
5      name              CHAR(50),
6      contract_no       INTEGER          NOT NULL,
7      PRIMARY KEY (player_id),
8      FOREIGN KEY (contract_no) REFERENCES contract
9  );

```

11. CoachSignContract Table:

```

1      CREATE TABLE CoachSignContract(
2      coach_id          INTEGER          NOT NULL,
3      dob              DATE,
4      name             CHAR(50)          NOT NULL,
5      contract_no       INTEGER          NOT NULL,
6      team_name         CHAR(50),
7      PRIMARY KEY (coach_id),
8      FOREIGN KEY (team_name) REFERENCES TeamIn
9      ON DELETE SET NULL
10     ON UPDATE CASCADE
11     FOREIGN KEY (contract_no) REFERENCES Contract
12     ON DELETE SET NULL
13     ON UPDATE CASCADE
14 );

```

12. Contract Table:

```

1      CREATE TABLE contract(
2      contract_no       INTEGER          NOT NULL,
3      date              DATE,
4      price             INTEGER,
5      PRIMARY KEY (contract_no)
6  );

```

13. CustomerSubscribePlayer Table:

```

1      CREATE TABLE CustomerSubscribePlayer(
2      customer_id       INTEGER          NOT NULL,
3      player_id         INTEGER          NOT NULL,
4      PRIMARY KEY (customer_id, player_id)
5  );

```

14. CustomerSubscribeMatch Table:

```

1      CREATE TABLE CustomerSubscribeMatch(
2      customer_id       INTEGER          NOT NULL,
3      date              DATE             NOT NULL,
4      team_name         CHAR(50)         NOT NULL,
5      PRIMARY KEY (customer_id, date, team_name)
6  );

```