

## Warm-Up Project

Concordia University  
Dept. of Computer Science & Software Engineering  
Comp 353 - Databases Winter 2025

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Due: February 17, 2025 at 23:55

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## E/R model

**Figure 2. Entity-Relationship diagram to Relational Schema**

Locations(location\_id, type, name, address, city, province, postal\_code, phone\_number, web\_address, capacity, personnel\_id)

Personnel(personnel\_id, location\_id, first\_name, last\_name, dob, ssn, medicare\_card, phone\_number, address, city, province, postal\_code, email, role, mandate)

FamilyMembers(family\_member\_id, location\_id, first\_name, last\_name, dob, ssn, medicare\_card, phone\_number, address, city, province, postal\_code, email\_address)

ClubMembers(club\_member\_id, family\_member\_id, location\_id, first\_name, last\_name, dob, height, weight, ssn, medicare\_card, phone\_number, address, city, province, postal\_code, relationship, status, last\_payment\_date)

Payments(payment\_id, club\_member\_id, payment\_date, amount, payment\_method, membership\_date, is\_donation, installment\_number)

Teams(team\_id, location\_id, team\_gender, team\_name, age\_group)

PersonnelLocations(personnel\_id, location\_id, start\_date, end\_date)

FamilyMemberLocations(family\_member\_id, location\_id, start\_date, end\_date)

**Figure 3.** Creation of the Locations table

```
CREATE TABLE Locations (
  location_id INT AUTO_INCREMENT,
  type VARCHAR(255),
```

```

name VARCHAR(255),
address VARCHAR(255),
city VARCHAR(255),
province VARCHAR(2),
postal_code VARCHAR(20),
phone_number VARCHAR(20),
web_address VARCHAR(255),
capacity INT,
personnel_id INT,
PRIMARY KEY (location_id)
);

```

**Figure 4.** Creation of the Personnel table

```

CREATE TABLE Personnel (
  personnel_id INT AUTO_INCREMENT,
  location_id INT,
  first_name VARCHAR(255),
  last_name VARCHAR(255),
  dob DATE,
  ssn VARCHAR(20) UNIQUE NOT NULL,
  medicare_card VARCHAR(20) UNIQUE,
  phone_number VARCHAR(20),
  address VARCHAR(255),
  city VARCHAR(255),
  province VARCHAR(2),
  postal_code VARCHAR(20),
  email VARCHAR(255),
  role VARCHAR(255) NOT NULL,
  mandate TEXT,
  PRIMARY KEY (personnel_id),
  FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

```

**Figure 5.** Creation of the FamilyMembers table

```

CREATE TABLE FamilyMembers (
  family_member_id INT AUTO_INCREMENT,
  location_id INT,
  first_name VARCHAR(255),
  last_name VARCHAR(255),
  dob DATE,
  ssn VARCHAR(20) UNIQUE NOT NULL,
  medicare_card VARCHAR(20) UNIQUE,

```

```

phone_number VARCHAR(20),
address VARCHAR(255),
city VARCHAR(255),
province VARCHAR(2),
postal_code VARCHAR(20),
email_address VARCHAR(255),
PRIMARY KEY (family_member_id),
FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

```

**Figure 6.** Creation of the ClubMembers table

```

CREATE TABLE ClubMembers (
club_member_id INT AUTO_INCREMENT,
family_member_id INT,
location_id INT,
first_name VARCHAR(255),
last_name VARCHAR(255),
dob DATE,
height INT,
weight INT,
ssn VARCHAR(20),
medicare_card VARCHAR(20),
phone_number VARCHAR(20),
address VARCHAR(255),
city VARCHAR(255),
province VARCHAR(2),
postal_code VARCHAR(20),
relationship VARCHAR(20),
status VARCHAR(20),
last_payment_date DATE,
PRIMARY KEY (club_member_id),
FOREIGN KEY (family_member_id) REFERENCES
FamilyMembers(family_member_id),
FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

```

**Figure 7.** Creation of the Payments table

```

CREATE TABLE Payments (
payment_id INT AUTO_INCREMENT,
club_member_id INT,
payment_date DATE,
amount DECIMAL(10, 2),
payment_method VARCHAR(20),

```

```

membership_date DATE,
is_donation BOOLEAN,
installment_number INT,
PRIMARY KEY (payment_id),
FOREIGN KEY (club_member_id) REFERENCES ClubMembers(club_member_id)
);

```

**Figure 8.** Creation of the Teams table

```

CREATE TABLE Teams (
team_id INT AUTO_INCREMENT,
location_id INT,
team_gender VARCHAR(20),
team_name VARCHAR(255),
age_group VARCHAR(255),
PRIMARY KEY (team_id),
FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

```

**Figure 9.** Creation of the PersonalLocations table

```

CREATE TABLE PersonnelLocations (
personnel_id INT,
location_id INT,
start_date DATE,
end_date DATE,
PRIMARY KEY (personnel_id, location_id, start_date),
FOREIGN KEY (personnel_id) REFERENCES Personnel(personnel_id),
FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

```

**Figure 10.** Creation of the FamilyMemberLocations table

```

CREATE TABLE FamilyMemberLocations (
family_member_id INT,
location_id INT,
start_date DATE,
end_date DATE,
PRIMARY KEY (family_member_id, location_id, start_date),
FOREIGN KEY (family_member_id) REFERENCES
FamilyMembers(family_member_id),
FOREIGN KEY (location_id) REFERENCES Locations(location_id)
);

```

);