-- 1. Create Teams table

CREATE TABLE teams (

team\_id INT PRIMARY KEY AUTO\_INCREMENT,

name VARCHAR(50) NOT NULL,

city VARCHAR(50) NOT NULL,

coach VARCHAR(50) NOT NULL,

captain\_id INT

);

-- 2. Create Players table

CREATE TABLE players (

player\_id INT PRIMARY KEY AUTO\_INCREMENT,

team\_id INT NOT NULL,

name VARCHAR(50) NOT NULL,

position VARCHAR(30) NOT NULL,

skill\_level INT CHECK (skill\_level BETWEEN 1 AND 10),

FOREIGN KEY (team\_id) REFERENCES teams(team\_id) ON DELETE CASCADE

);

-- 3. Add foreign key constraint for captain\_id

ALTER TABLE teams

ADD FOREIGN KEY (captain\_id) REFERENCES players(player\_id);

-- 4. Create Injuries table

CREATE TABLE injuries (

injury\_id INT PRIMARY KEY AUTO\_INCREMENT,

player\_id INT NOT NULL,

injury\_date DATE NOT NULL,

description VARCHAR(255),

recovery\_days INT,

FOREIGN KEY (player\_id) REFERENCES players(player\_id) ON DELETE CASCADE

);

-- 5. Create Games table

CREATE TABLE games (

game\_id INT PRIMARY KEY AUTO\_INCREMENT,

host\_team\_id INT NOT NULL,

guest\_team\_id INT NOT NULL,

game\_date DATE NOT NULL,

host\_score INT NOT NULL,

guest\_score INT NOT NULL,

FOREIGN KEY (host\_team\_id) REFERENCES teams(team\_id),

FOREIGN KEY (guest\_team\_id) REFERENCES teams(team\_id),

CHECK (host\_team\_id != guest\_team\_id)

);

-- Insert teams (captain\_id will be updated later)

INSERT INTO teams (name, city, coach) VALUES

('Toronto Maple Leafs', 'Toronto', 'Sheldon Keefe'),

('Montreal Canadiens', 'Montreal', 'Martin St. Louis'),

('Vancouver Canucks', 'Vancouver', 'Rick Tocchet');

-- Insert players for Toronto Maple Leafs

INSERT INTO players (team\_id, name, position, skill\_level) VALUES

(1, 'Auston Matthews', 'Center', 9),

(1, 'Morgan Rielly', 'Defenseman', 8),

(1, 'William Nylander', 'Right Wing', 8);

-- Insert players for Montreal Canadiens

INSERT INTO players (team\_id, name, position, skill\_level) VALUES

(2, 'Nick Suzuki', 'Center', 8),

(2, 'Cole Caufield', 'Right Wing', 8),

(2, 'Mike Matheson', 'Defenseman', 7);

-- Insert players for Vancouver Canucks

INSERT INTO players (team\_id, name, position, skill\_level) VALUES

(3, 'Bo Horvat', 'Center', 8),

(3, 'Elias Pettersson', 'Center', 9),

(3, 'Quinn Hughes', 'Defenseman', 8);

-- Update teams with their captains

UPDATE teams SET captain\_id = 1 WHERE team\_id = 1; -- Matthews captain of Toronto

UPDATE teams SET captain\_id = 4 WHERE team\_id = 2; -- Suzuki captain of Montreal

UPDATE teams SET captain\_id = 7 WHERE team\_id = 3; -- Horvat captain of Vancouver

-- Insert injury records

INSERT INTO injuries (player\_id, injury\_date, description, recovery\_days) VALUES

(2, '2023-01-15', 'Knee sprain', 14),

(5, '2023-02-20', 'Shoulder injury', 21),

(8, '2023-03-05', 'Concussion protocol', 30);

-- Insert game records

INSERT INTO games (host\_team\_id, guest\_team\_id, game\_date, host\_score, guest\_score) VALUES

(1, 2, '2023-01-10', 4, 2), -- Toronto vs Montreal

(2, 3, '2023-02-15', 3, 5), -- Montreal vs Vancouver

(3, 1, '2023-03-20', 2, 1); -- Vancouver vs Toronto

SELECT t.name AS team, t.city, p.name AS captain, p.position

FROM teams t

JOIN players p ON t.captain\_id = p.player\_id;

SELECT p.name AS player, p.position, p.skill\_level,

t.name AS team, t.city

FROM players p

JOIN teams t ON p.team\_id = t.team\_id

ORDER BY t.name, p.name;

SELECT p.name AS player, t.name AS team,

i.injury\_date, i.description, i.recovery\_days

FROM injuries i

JOIN players p ON i.player\_id = p.player\_id

JOIN teams t ON p.team\_id = t.team\_id;

SELECT

ht.name AS host\_team,

gt.name AS guest\_team,

g.game\_date,

CONCAT(g.host\_score, ' - ', g.guest\_score) AS score

FROM games g

JOIN teams ht ON g.host\_team\_id = ht.team\_id

JOIN teams gt ON g.guest\_team\_id = gt.team\_id

ORDER BY g.game\_date;

SELECT

ht.name AS host\_team,

gt.name AS guest\_team,

g.game\_date,

CONCAT(g.host\_score, ' - ', g.guest\_score) AS score,

ABS(g.host\_score - g.guest\_score) AS goal\_difference

FROM games g

JOIN teams ht ON g.host\_team\_id = ht.team\_id

JOIN teams gt ON g.guest\_team\_id = gt.team\_id

WHERE ABS(g.host\_score - g.guest\_score) >= 2

ORDER BY goal\_difference DESC;

SELECT

t.name AS team,

p.position,

COUNT(\*) AS player\_count

FROM players p

JOIN teams t ON p.team\_id = t.team\_id

GROUP BY t.name, p.position

ORDER BY t.name, player\_count DESC;