SQL Tables

Players

```
480    Select * from players;
481    Select * from games;
100%    ⇕    1:480    1 error found
```

Result Grid | Filter Rows: Search | Edit: | Export/Import:

P...	PlayerName	JerseyNumber	PositionID	Height	Weight	Shoots	Birthplace	Birthdate
4	Charlie Coyle	13	F1	6' 3"	218	R	Weymouth, MA	1992-03-02
5	Trent Frederic	11	F1	6' 3"	220	L	Saint Louis, MO	1998-02-11
6	Morgan Geekie	39	F1	6' 3"	202	R	Strathclair, CAN	1998-07-20
7	Jakub Lauko	94	F1	6' 1"	193	L	Prague, Czechia	2000-03-28
8	Matthew Poitras	51	F1	5' 11"	180	R	Brooklin, CAN	2004-03-10
9	Pavel Zacha	18	F1	6' 4"	207	L	Brno, Czechia	1997-04-06
10	Jake DeBrusk	74	F2	6' 1"	198	L	Edmonton, CAN	1996-10-17
11	Danton Heinen	43	F2	6' 2"	195	L	Langley, CAN	1995-07-05
12	Brad Marchand	63	F2	5' 9"	176	L	Halifax, CAN	1988-05-11
13	James van Rie...	21	F2	6' 3"	208	L	Middletown, NJ	1989-05-04
14	Justin Brazeau	55	F3	6' 5"	220	R	New Liskeard, CAN	1998-02-02
15	David Pastrnak	88	F3	6' 0"	196	L	Havirov, Czechia	1996-05-25
16	Brandon Carlo	25	D2	6' 5"	217	R	Colorado Springs...	1996-11-26
17	Derek Forbort	28	D1	6' 4"	216	L	Duluth, MN	1992-03-04
18	Matt Grzelcyk	48	D1	5' 10"	180	L	Charlestown, MA	1994-05-01
19	Hampus Lindh...	27	D1	6' 4"	224	L	Helsingborg, Swe...	1994-01-20
20	Mason Lohrei	6	D2	6' 4"	210	NULL	Madison, WI	2001-01-17
21	Charlie McAvoy	73	D2	6' 1"	209	R	Long Beach, NY	1997-12-21
22	Ian Mitchell	14	D2	5' 11"	193	R	St. Albert, CAN	1999-01-18

Games

```
Select * from games;
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```

Result Grid | Filter Rows: Search | Edit: | Export/Import:

GameNumber	RosterNumber	Date	Opponent	HomeAway	OpponentScore	BruinsScore	Result	Regulation
1	1	Wed Oct 11	Blackhawks	1	1	3	1	Regulation
2	2	Sat Oct 14	Predators	1	2	3	1	Regulation
3	1	Thu Oct 19	Sharks	0	1	3	1	Regulation
4	2	Sat Oct 21	Kings	0	2	4	1	Regulation
5	3	Sun Oct 22	Ducks	0	1	3	1	Regulation
6	3	Tue Oct 24	Blackhawks	0	0	3	1	Regulation
7	3	Thu Oct 26	Ducks	1	4	3	0	Overtime
8	3	Sat Oct 28	Red Wings	1	1	4	1	Regulation
9	1	Mon Oct 30	Panthers	1	2	3	1	Overtime
10	1	Thu Nov 2	Maple Leafs	1	2	3	1	Shootout
11	1	Sat Nov 4	Red Wings	0	5	4	0	Regulation
12	1	Mon Nov 6	Stars	0	2	3	1	Regulation
13	1	Thu Nov 9	Islanders	1	2	5	1	Regulation
14	1	Sat Nov 11	Canadiens	0	3	2	0	Overtime
15	2	Tue Nov 14	Sabres	0	2	5	1	Regulation
16	1	Sat Nov 18	Canadiens	0	2	5	1	Regulation
17	2	Mon Nov 20	Lightning	0	5	4	0	Overtime
18	2	Wed Nov 22	Panthers	0	1	3	1	Regulation

SQL Tables

Player stats


```
Select * from seasonplayerstats;
```

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Result Grid · Filter Rows: Search · Edit: · Export/Import:

PlayerID	PlayerName	GamesPlayed	Goals	Assists	Points	PlusMinus	PenaltyMin	Shots	ShootingPercenta...	PowerPlayGoals	PowerPlayAssists	ShortHandedGo...	ShortHandedAssi...	GameWinningGoals	Tim
1	Johnny Beecher	39	5	2	7	-6	15	0	18.50	0	0	0	0	1	10
2	Jesper Boqvist	26	4	6	10	10	4	0	12.50	0	0	0	0	0	11
3	Patrick Brown	11	0	1	1	-3	2	0	0.00	0	0	0	0	0	9
4	Charlie Coyle	61	21	29	50	6	28	2	17.60	5	4	0	3	4	18
5	Trent Frederic	61	16	19	35	13	50	0	17.20	1	0	0	0	0	14
6	Morgan Geekie	55	13	17	30	7	20	0	14.00	3	5	0	0	0	15
7	Jakub Lauko	42	2	6	8	-4	28	0	6.50	0	0	0	0	0	9
8	Matthew Poitras	33	5	10	15	4	6	0	12.50	0	1	0	0	1	13
9	Pavel Zacha	57	12	24	36	8	16	0	11.00	3	7	0	0	3	18
10	Jake DeBrusk	59	13	14	27	11	12	1	9.80	2	5	2	0	2	17
11	Danton Heinen	53	11	11	22	7	22	0	12.20	1	0	1	0	3	14
12	Brad Marchand	61	26	27	53	5	62	0	15.80	7	15	2	0	6	19
13	James van Rie...	57	11	26	37	9	14	0	8.70	6	6	0	0	3	13
14	Justin Brazeau	5	1	1	2	2	2	0	12.50	0	0	0	0	0	10
15	David Pastrnak	61	38	49	87	21	45	1	12.70	11	20	0	0	4	20
16	Brandon Carlo	56	3	10	13	22	34	0	5.20	0	0	0	0	1	20
17	Derek Forbort	34	0	4	4	8	17	0	0.00	0	0	0	0	0	17
18	Matt Grzelcyk	46	2	6	8	5	33	0	4.00	0	0	0	0	0	17

Team stats


```
Select * from teamstats;
```

100% · 1:499 · 1 error found

Result Grid · Filter Rows: Search · Export:

TeamID	TeamName	GamesPlayed	Num_of_Wins	Num_of_Losses	OverTimeLosses	Points	RegulationWins	Regulation_and_Overtime_Wi...	ShootoutWins	ShootoutLoss...	HomeWinPercentage	AwayWinPerce...
3	Coyotes	58	23	30	5	51	18	21	2	0	0.517	0.276
4	Sabres	59	27	28	4	58	23	26	1	1	0.433	0.483
5	Flames	59	29	25	5	63	24	29	0	4	0.517	0.467
6	Hurricanes	59	35	18	6	76	29	34	1	4	0.633	0.552
7	Blackhawks	59	15	39	5	35	10	14	1	1	0.367	0.138
8	Avalanche	60	36	19	5	77	32	34	2	1	0.793	0.419
9	Blue Jackets	57	19	28	10	48	14	17	2	1	0.385	0.321
10	Stars	61	35	17	9	79	26	33	2	2	0.586	0.563
11	Red Wings	59	33	20	6	72	23	31	2	0	0.581	0.536
12	Oilers	56	34	20	2	70	28	32	2	0	0.643	0.571

SQL Tables

Venues

```
498  ●  Select * from venue;
499
100%  ⇕  21:498  1 error found
```

Result Grid | Filter Rows: Search | Edit: ...

VenueID	VenueName	Capacity	City	State	Country
2	Honda Center	17174	Anaheim	California	USA
3	Mullett Arena	4600	Tempe	Arizona	USA
4	KayBank Center	19070	Buffalo	New York	USA
5	Scotiabank Saddledome	19289	Calgary	Alberta	CAN
6	PNC Arena	18700	Raleigh	North Carolina	USA
7	United Center	19717	Chicago	Illinois	USA
8	Ball Arena	17809	Denver	Colorado	USA
9	Nationwide Arena	18144	Columbus	Ohio	USA
10	America Airlines Center	18532	Dallas	Texas	USA
11	Little Ceasars Arena	19515	Detroit	Michigan	USA
12	Rogers Place	18347	Edmonton	Alberta	CAN
13	Amerant Bank Arena	19250	Sunrise	Florida	USA
14	Crypto.com Arena	18230	Los Ang…	California	USA
15	Xcel Energy Center	17954	Saint Paul	Minnesota	USA
16	Bell Centre	21105	Montreal	Quebec	CAN

Roster

```
          Select * from roster;
495
496
100%  ⇕  22:494  1 error found
```

Result Grid | Filter Rows: Search | Edit: ... | Export/Import:

RosterNumber	Forward1	Forward2	Forward3	Forward4	Forward5	Forward6	Forward7	Forward8	F...
1	1	2	3	4	5	6	7	8	9
2	5	4	3	2	1	10	11	15	1
3	5	4	3	2	1	10	11	15	
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	

Queries

```sql
-- Adding a procedure to retrieve top players

DELIMITER $$
CREATE PROCEDURE GetTopPlayers(IN top_n INT)
BEGIN
    SELECT PlayerID, PlayerName, Goals
    FROM players
    ORDER BY Goals DESC
    LIMIT top_n
END $$
DELIMITER ;
```

```sql
-- Adding a join query for player performance analysis

-- Query to find the performance of players based on their captaincy role
SELECT p.PlayerName, c.CaptainType, ps.Goals, ps.Assists
FROM players p
JOIN captain c ON p.PlayerID = c.PlayerID
JOIN seasonplayerstats ps ON p.PlayerID = ps.PlayerID
WHERE ps.Goals > 10;
```

PlayerName	CaptainType	Goals	Assists
Brad Marchand	Alternate	26	27
David Pastrnak	Alternate	38	49

```sql
457     -- Adding a trigger to audit player stats updates
458
459     DELIMITER $$
460  •  CREATE TRIGGER PlayerStatsUpdate
461     AFTER UPDATE ON seasonplayerstats
462     FOR EACH ROW
463  ⊖ BEGIN
464         INSERT INTO player_stats_audit (PlayerID, OldGoals, NewGoals, UpdateTime)
465         VALUES (OLD.PlayerID, OLD.Goals, NEW.Goals, NOW());
466     END $$
467     DELIMITER ;
468
```

Queries

```sql
-- Query 2: Join captain and players table to list captain details with team affiliation
SELECT c.CaptainID, p.PlayerName, c.CaptainType
FROM captain c
JOIN players p ON c.PlayerID = p.PlayerID;
```

CaptainID	PlayerName	CaptainType
1	Brad Marchand	Alternate
2	Charlie McAvoy	Alternate
3	David Pastrnak	Alternate

```sql
-- Query 4: Trigger to automatically update team statistics after a game result is updated
DELIMITER //
CREATE TRIGGER UpdateTeamStats AFTER UPDATE ON games
FOR EACH ROW
BEGIN
    IF NEW.Result <> OLD.Result THEN
        UPDATE teams
        SET Wins = Wins + (NEW.Result = 'Win') - (OLD.Result = 'Win'),
            Losses = Losses + (NEW.Result = 'Loss') - (OLD.Result = 'Loss')
        WHERE TeamName = 'Boston Bruins';
    END IF;
END //
DELIMITER ;
```

```sql
-- Query 3: Stored Procedure to fetch details of games against a specific opponent
DELIMITER //
CREATE PROCEDURE GetGamesByOpponent(IN OpponentName VARCHAR(50))
BEGIN
    SELECT * FROM games WHERE Opponent = OpponentName;
END //
DELIMITER ;
```

Queries

```sql
-- Query 5: Aggregate query to count games played at home vs away
SELECT HomeAway, COUNT(*) AS GamesCount
FROM games
GROUP BY HomeAway;
```

HomeAway	GamesCount
1	30
0	30

```sql
-- Query 6: Insert a new coach entry
INSERT INTO coach (CoachName, Position, Seasons)
VALUES ('Mark Smith', 'Special Teams Coach', 5);
```

```sql
-- Query 7: Delete games where Bruins lost by more than 5 points
DELETE FROM games
WHERE OpponentScore - BruinsScore > 5 AND Result = 1;
```

Queries

```sql
-- Query 8: Stored Procedure to list all captains of a specific type
DELIMITER //
CREATE PROCEDURE GetCaptainsByType(IN CaptainTypeName VARCHAR(20))
BEGIN
    SELECT * FROM captain WHERE CaptainType = CaptainTypeName;
END //
DELIMITER ;
```

```sql
-- Query 9: Trigger to cascade delete players when a team is removed
DELIMITER //
CREATE TRIGGER CascadeDeletePlayers BEFORE DELETE ON teams
FOR EACH ROW
BEGIN
    DELETE FROM players WHERE TeamID = OLD.TeamID;
END //
DELIMITER ;
```

```sql
-- Query 10: Conditional update to mark games with high scores
UPDATE games
SET Regulation = 'High Scoring'
WHERE BruinsScore > 5 AND OpponentScore > 5;
```

Queries

```sql
-- Query 12: Join games and coach table to see coaches in charge during each game
SELECT g.GameNumber, g.Date, c.CoachName, c.Position
FROM games g
JOIN coach c ON g.RosterNumber = c.CoachID
WHERE g.Result = 'Win';
```

```sql
-- Query 1: Update goals in the captain's table (example of an UPDATE statement)
UPDATE captain
SET CaptainType = 'Alternate'
WHERE PlayerName = 'Brad Marchand';
```

```sql
-- Query 11: Subquery to fetch the best captain based on performance (hypothetical)
SELECT PlayerID, PlayerName, PositionID
FROM Players
WHERE PlayerID=(
    SELECT PlayerID
    FROM captain
    where PlayerID < 13
)
```

GameNumber	Date	CoachName	Position
7	Thu Oct 26	Chris Kelly	Assistant Coach
11	Sat Nov 4	Jim Montgomery	Head Coach
14	Sat Nov 11	Jim Montgomery	Head Coach
17	Mon Nov 20	Joe Sacco	Assistant Coach
19	Fri Nov 24	Joe Sacco	Assistant Coach
20	Sat Nov 25	Joe Sacco	Assistant Coach
21	Mon Nov 27	Joe Sacco	Assistant Coach
25	Thu Dec 7	Chris Kelly	Assistant Coach
27	Wed Dec 13	Chris Kelly	Assistant Coach
29	Sat Dec 16	Jim Montgomery	Head Coach
30	Tue Dec 19	Joe Sacco	Assistant Coach
31	Fri Dec 22	Chris Kelly	Assistant Coach
32	Sat Dec 23	Jim Montgomery	Head Coach
37	Thu Jan 4	Joe Sacco	Assistant Coach
39	Mon Jan 8	Joe Sacco	Assistant Coach
40	Tue Jan 9	Joe Sacco	Asistant Coach
41	Thu Jan 11	Joe Sacco	Assistant Coach
47	Wed Jan 24	Joe Sacco	Assistant Coach
50	Tue Feb 6	Chris Kelly	Assistant Coach
52	Sat Feb 10	Joe Sacco	Asistant Coach
53	Tue Feb 13	Joe Sacco	Assistant Coach
54	Thu Feb 15	Jim Montgomery	Head Coach
55	Sat Feb 17	Joe Sacco	Assistant Coach
58	Thu Feb 22	Joe Sacco	Assistant Coach
59	Sat Feb 24	Jim Montgomery	Head Coach
60	Mon Feb 26	Jim Montgomery	Head Coach

PlayerID	PlayerName	PositionID
12	Brad Marchand	F2
NULL	NULL	NULL