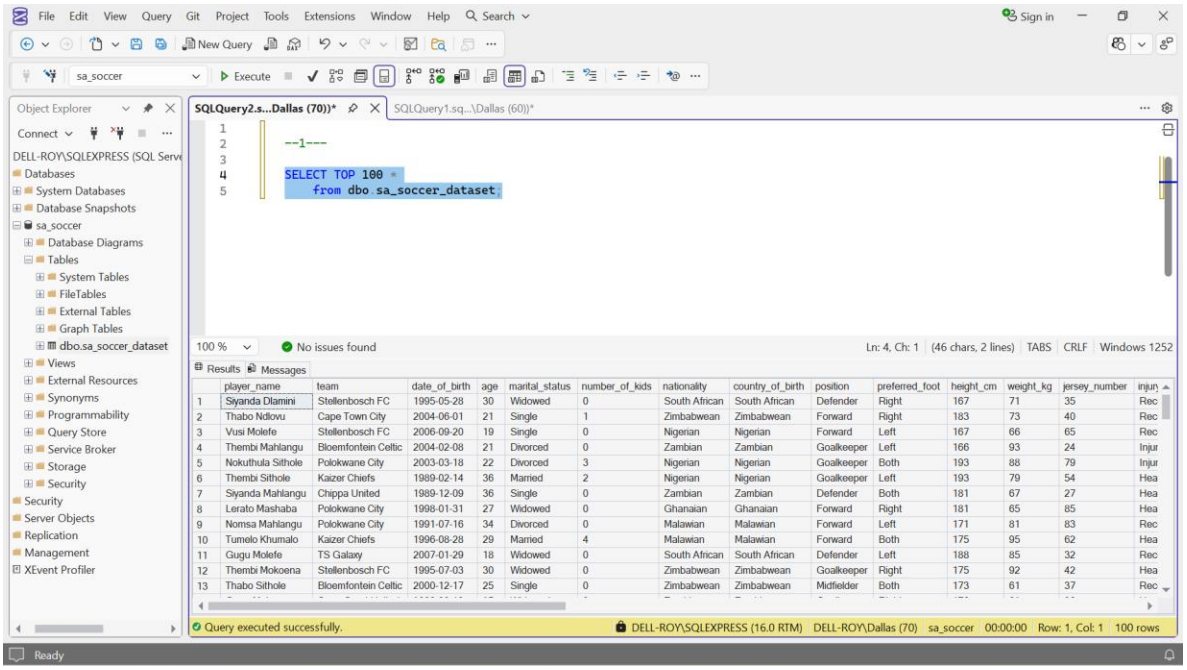
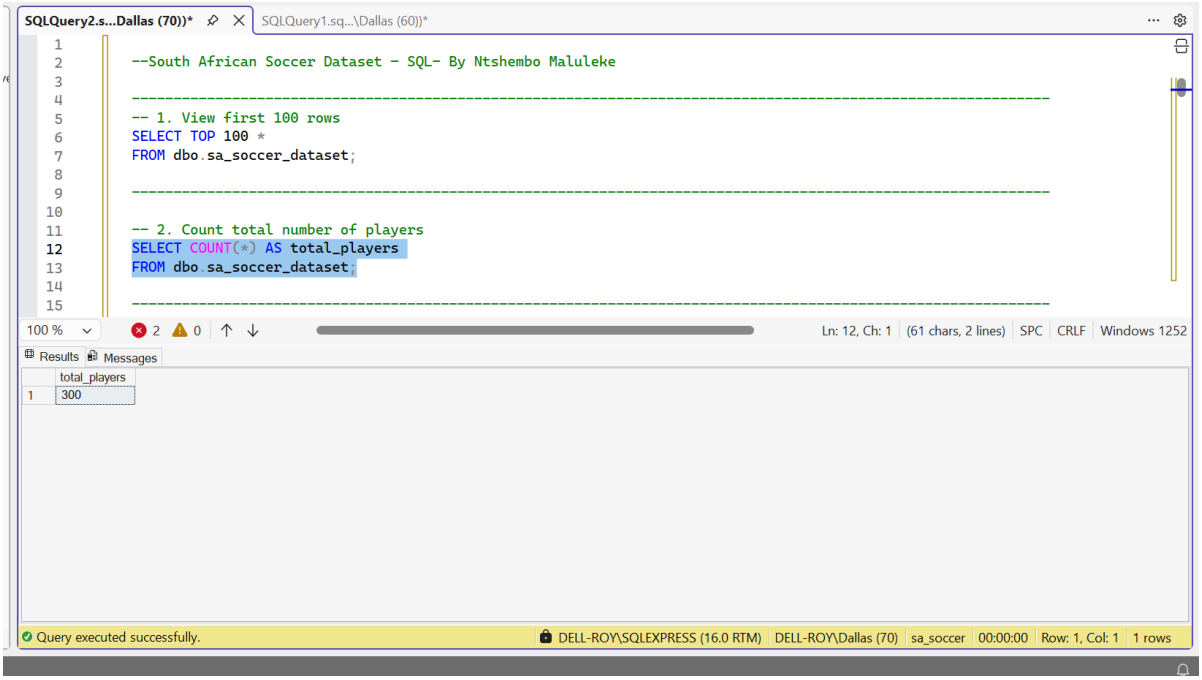
NTSHEMBO MALUEKE

Practical : Practical - Microsoft SQL Server

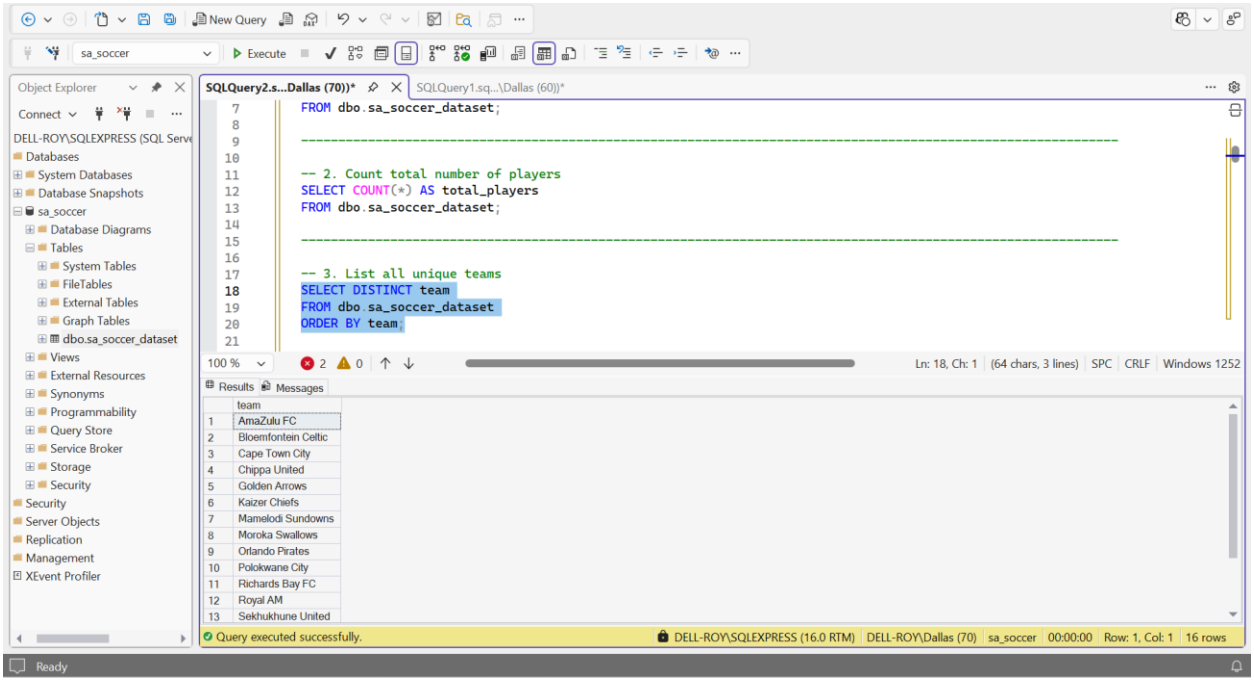
Q1



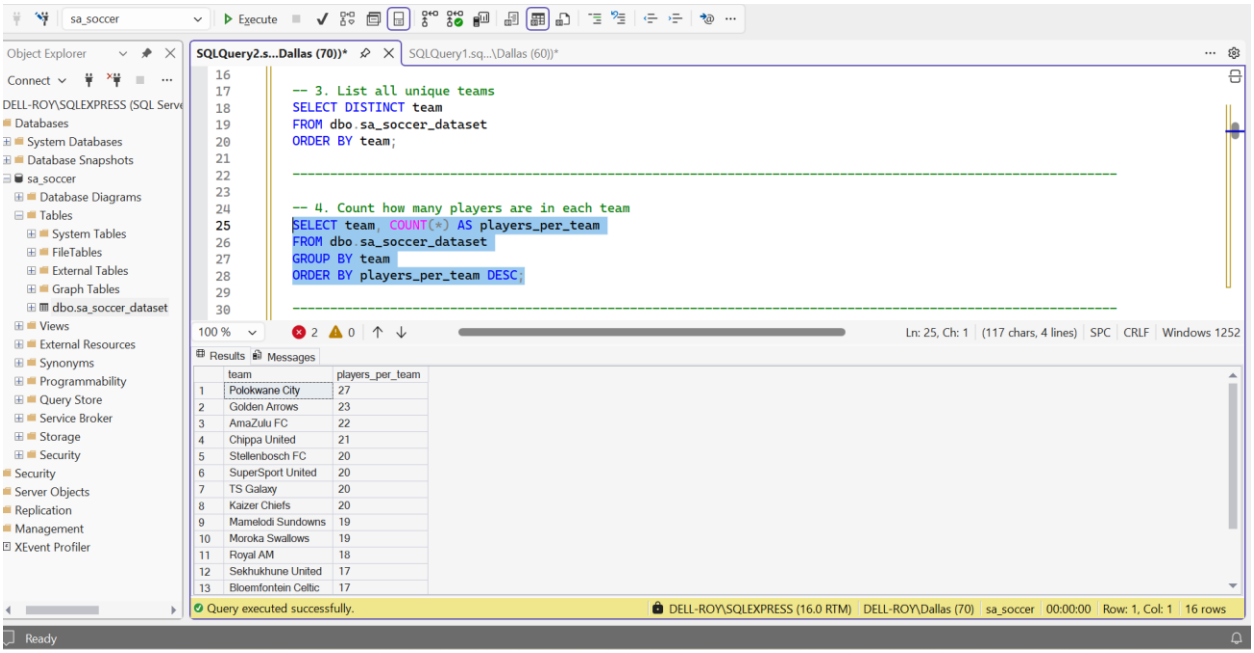
Q2



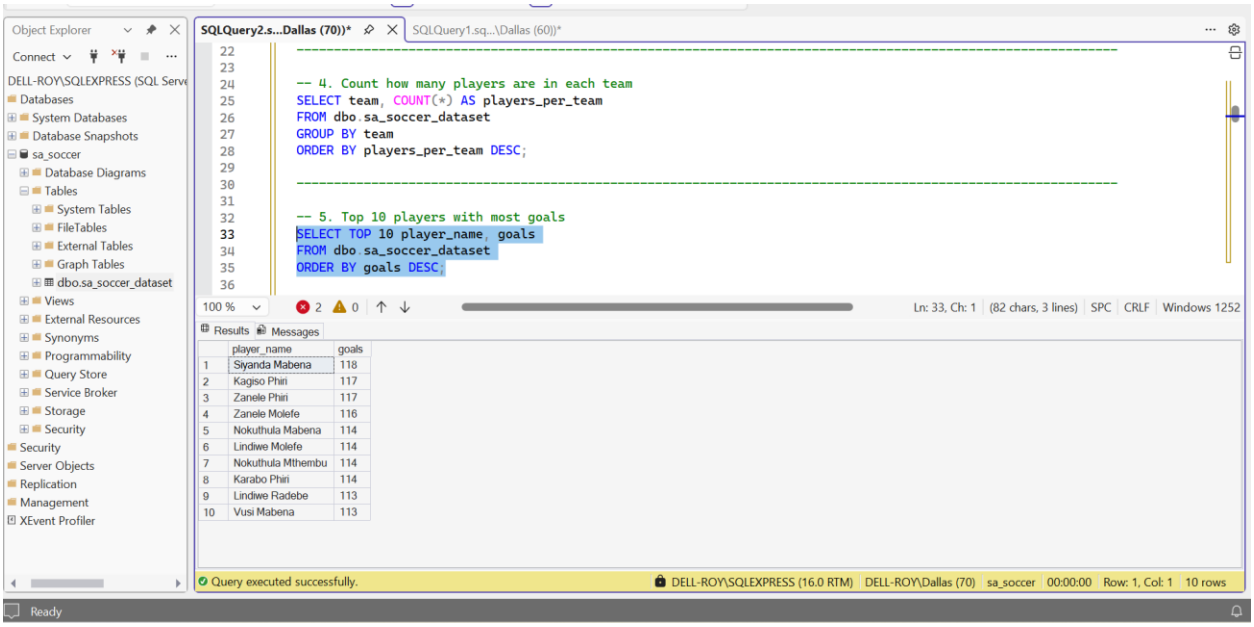
Q3


New Query
sa_soccer
Execute
Object Explorer
Connect
DELL-ROY\SQLEXPRESS (SQL Serve
Databases
System Databases
Database Snapshots
sa_soccer
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.sa_soccer_dataset
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
FROM dbo.sa_soccer_dataset;
-- 2. Count total number of players
SELECT COUNT(*) AS total_players
FROM dbo.sa_soccer_dataset;
-- 3. List all unique teams
SELECT DISTINCT team
FROM dbo.sa_soccer_dataset
ORDER BY team;
100 %
Ln: 18, Ch: 1
(64 chars, 3 lines)
SPC
CRLF
Windows 1252
Results
Messages
team
1 AmaZulu FC
2 Bloemfontein Celtic
3 Cape Town City
4 Chippa United
5 Golden Arrows
6 Kaizer Chiefs
7 Mamelodi Sundowns
8 Moroka Swallows
9 Orlando Pirates
10 Polokwane City
11 Richards Bay FC
12 Royal AM
13 Sekhukhune United
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
16 rows
Ready

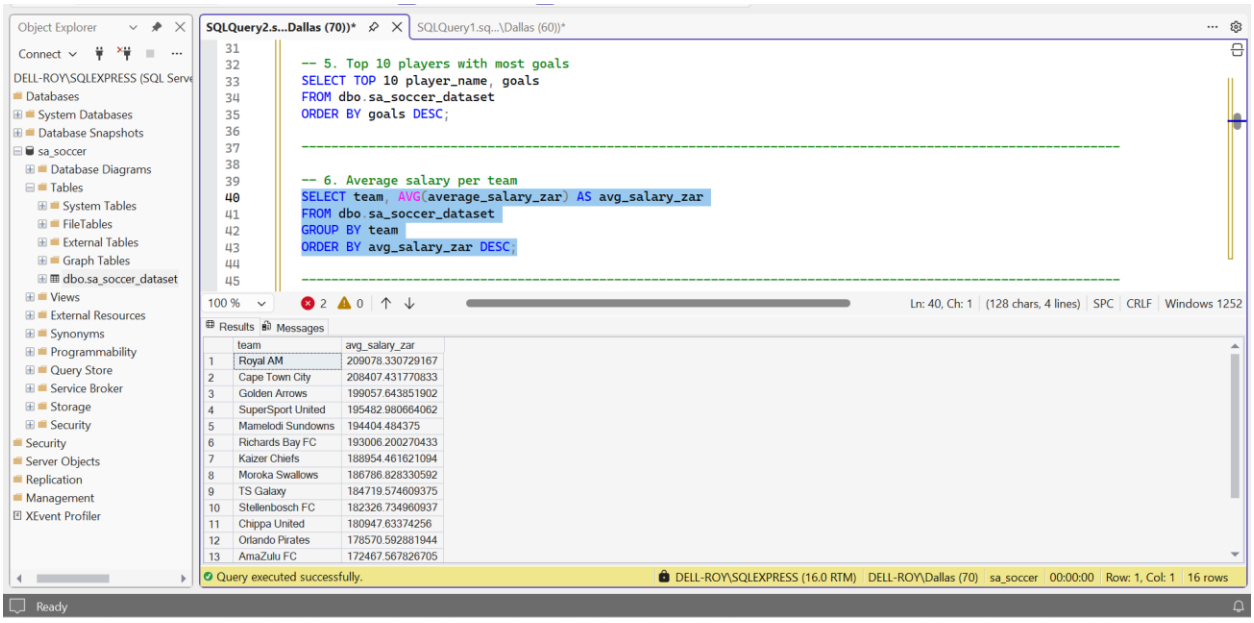
Q4


sa_soccer
Execute
Object Explorer
Connect
DELL-ROY\SQLEXPRESS (SQL Serve
Databases
System Databases
Database Snapshots
sa_soccer
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.sa_soccer_dataset
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
-- 3. List all unique teams
SELECT DISTINCT team
FROM dbo.sa_soccer_dataset
ORDER BY team;
-- 4. Count how many players are in each team
SELECT team, COUNT(*) AS players_per_team
FROM dbo.sa_soccer_dataset
GROUP BY team
ORDER BY players_per_team DESC;
100 %
Ln: 25, Ch: 1
(117 chars, 4 lines)
SPC
CRLF
Windows 1252
Results
Messages
team
players_per_team
1 Polokwane City 27
2 Golden Arrows 23
3 AmaZulu FC 22
4 Chippa United 21
5 Stellenbosch FC 20
6 SuperSport United 20
7 TS Galaxy 20
8 Kaizer Chiefs 20
9 Mamelodi Sundowns 19
10 Moroka Swallows 19
11 Royal AM 18
12 Sekhukhune United 17
13 Bloemfontein Celtic 17
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
16 rows
Ready

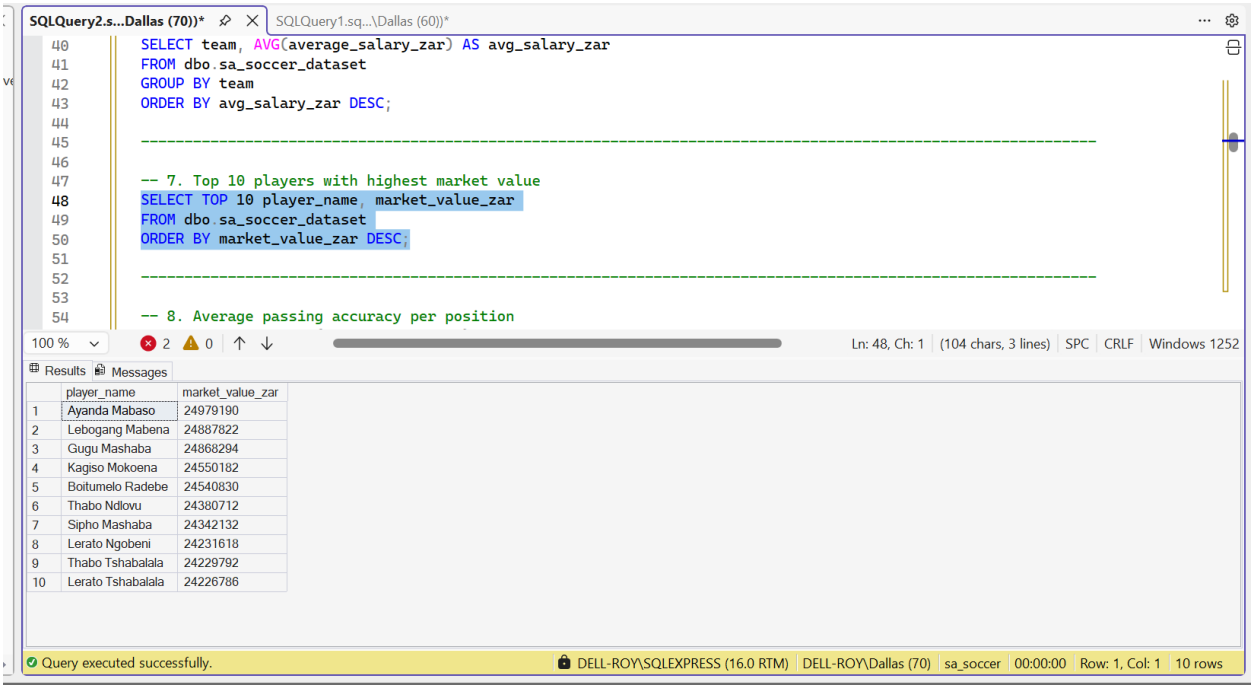
Q5


Object Explorer
Connect
DELL-ROY\SQLEXPRESS (SQL Serve
Databases
System Databases
Database Snapshots
sa_soccer
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.sa_soccer_dataset
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
-- 4. Count how many players are in each team
SELECT team, COUNT(*) AS players_per_team
FROM dbo.sa_soccer_dataset
GROUP BY team
ORDER BY players_per_team DESC;
-- 5. Top 10 players with most goals
SELECT TOP 10 player_name, goals
FROM dbo.sa_soccer_dataset
ORDER BY goals DESC;
100 %
Ln: 33, Ch: 1
(82 chars, 3 lines)
SPC
CRLF
Windows 1252
Results
Messages
player_name goals
1 Siyanda Mabena 118
2 Kagiso Phiri 117
3 Zanele Phiri 117
4 Zanele Molefe 116
5 Nokuthula Mabena 114
6 Lindiwe Molefe 114
7 Nokuthula Mthembu 114
8 Karabo Phiri 114
9 Lindiwe Radebe 113
10 Vusi Mabena 113
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
10 rows
Ready

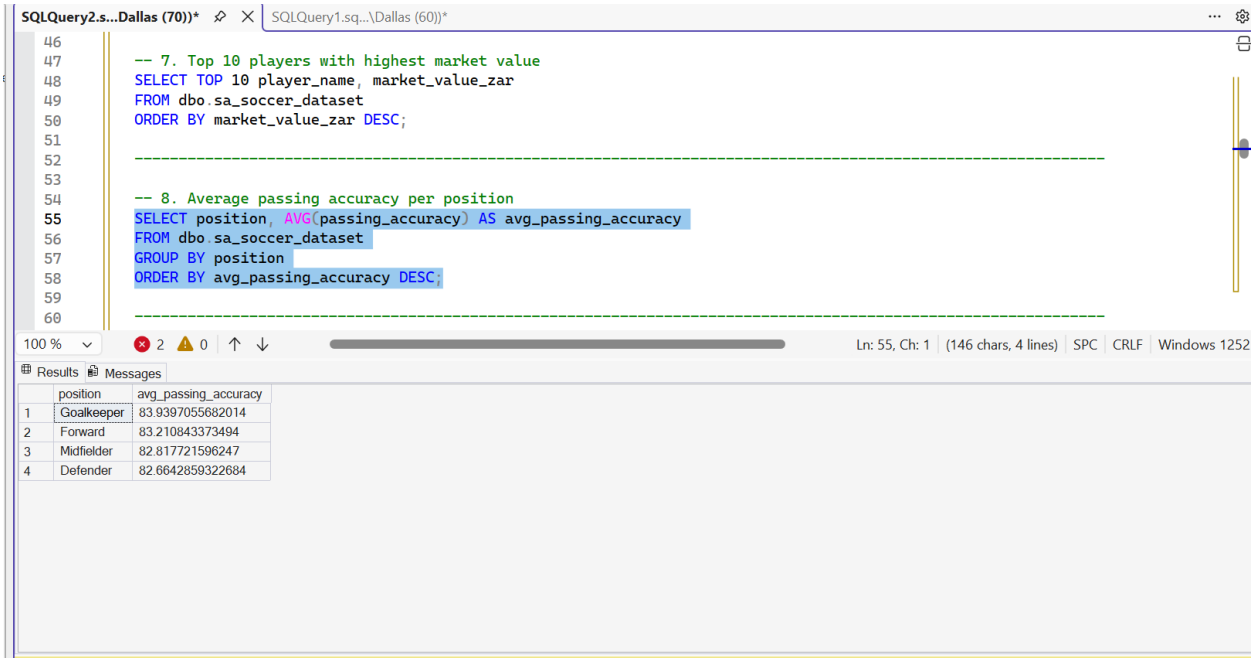
Q6


Object Explorer
Connect
DELL-ROY\SQLEXPRESS (SQL Serve
Databases
System Databases
Database Snapshots
sa_soccer
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.sa_soccer_dataset
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
-- 5. Top 10 players with most goals
SELECT TOP 10 player_name, goals
FROM dbo.sa_soccer_dataset
ORDER BY goals DESC;
-- 6. Average salary per team
SELECT team, AVG(average_salary_zar) AS avg_salary_zar
FROM dbo.sa_soccer_dataset
GROUP BY team
ORDER BY avg_salary_zar DESC;
100 %
Ln: 40, Ch: 1
(128 chars, 4 lines)
SPC
CRLF
Windows 1252
Results
Messages
team avg_salary_zar
1 Royal AM 209078.330729167
2 Cape Town City 208407.431770833
3 Golden Arrows 199057.643851902
4 SuperSport United 195482.980664062
5 Mamelodi Sundowns 194404.484375
6 Richards Bay FC 193006.200270433
7 Kaizer Chiefs 188954.461621094
8 Moroka Swallows 186786.828330592
9 TS Galaxy 184719.574609375
10 Stellenbosch FC 182326.734960937
11 Chippa United 180947.63374256
12 Orlando Pirates 178570.592881944
13 AmaZulu FC 172467.567826705
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
16 rows
Ready

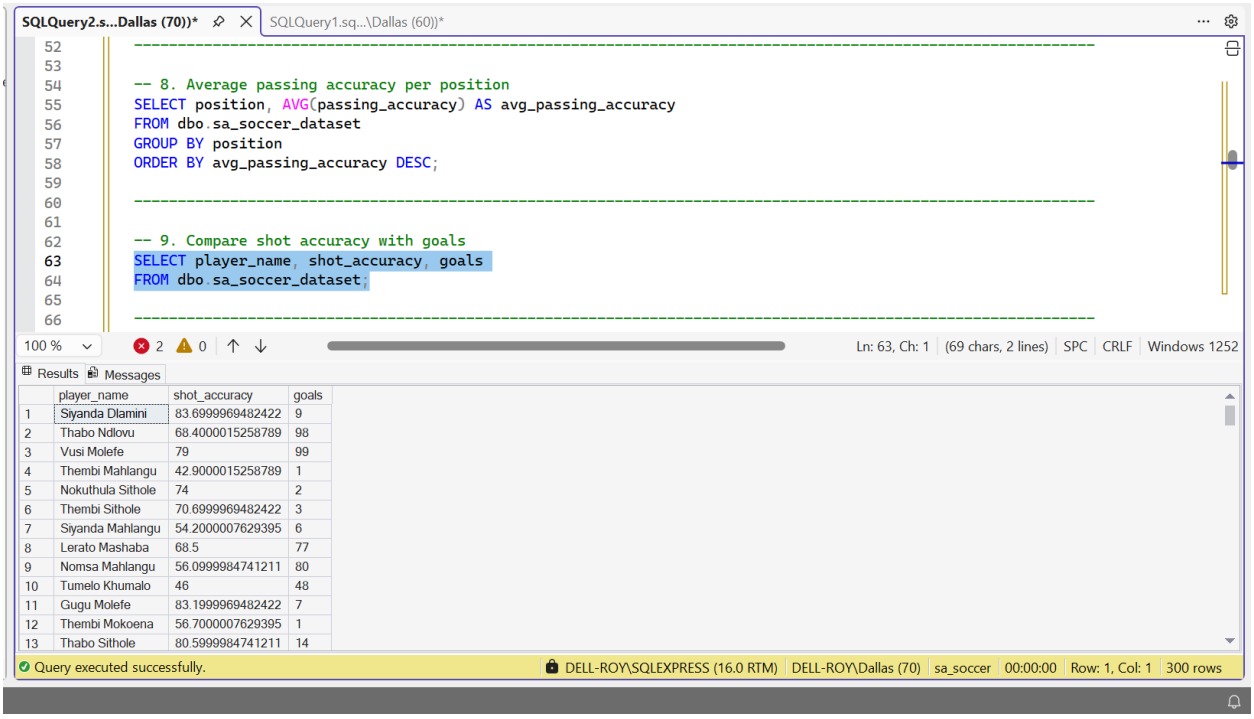
Q7


SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
SELECT team, AVG(average_salary_zar) AS avg_salary_zar
FROM dbo.sa_soccer_dataset
GROUP BY team
ORDER BY avg_salary_zar DESC;
-- 7. Top 10 players with highest market value
SELECT TOP 10 player_name, market_value_zar
FROM dbo.sa_soccer_dataset
ORDER BY market_value_zar DESC;
-- 8. Average passing accuracy per position
Ln: 48, Ch: 1 (104 chars, 3 lines) SPC CRLF Windows 1252
Results Messages
player_name market_value_zar
1 Ayanda Mabaso 24979190
2 Lebogang Mabena 24887822
3 Gugu Mashaba 24868294
4 Kagiso Mokoena 24550182
5 Boitumelo Radebe 24540830
6 Thabo Ndlovu 24380712
7 Sipho Mashaba 24342132
8 Lerato Ngobeni 24231618
9 Thabo Tshabalala 24229792
10 Lerato Tshabalala 24226786
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
10 rows

Q8


SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
-- 7. Top 10 players with highest market value
SELECT TOP 10 player_name, market_value_zar
FROM dbo.sa_soccer_dataset
ORDER BY market_value_zar DESC;
-- 8. Average passing accuracy per position
SELECT position, AVG(passing_accuracy) AS avg_passing_accuracy
FROM dbo.sa_soccer_dataset
GROUP BY position
ORDER BY avg_passing_accuracy DESC;
Ln: 55, Ch: 1 (146 chars, 4 lines) SPC CRLF Windows 1252
Results Messages
position avg_passing_accuracy
1 Goalkeeper 83.9397055682014
2 Forward 83.210843373494
3 Midfielder 82.817721596247
4 Defender 82.6642859322684

Q9

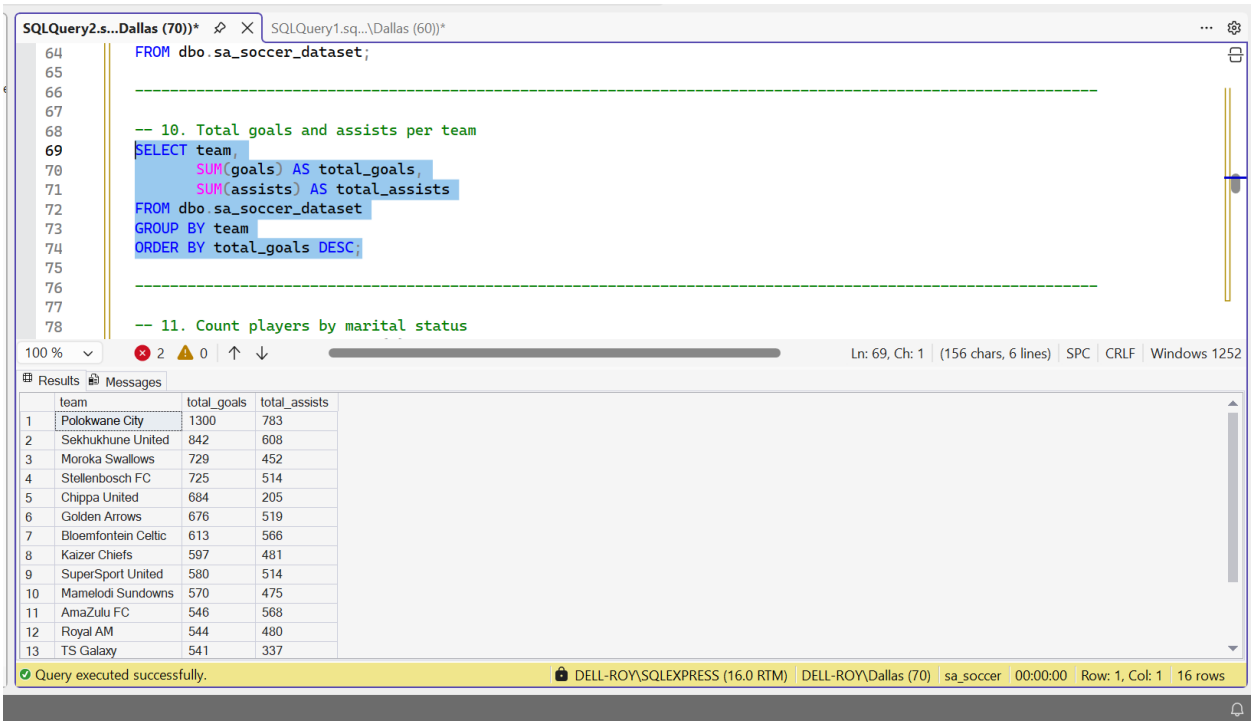


```
-- 8. Average passing accuracy per position
SELECT position, AVG(passing_accuracy) AS avg_passing_accuracy
FROM dbo.sa_soccer_dataset
GROUP BY position
ORDER BY avg_passing_accuracy DESC;

-- 9. Compare shot accuracy with goals
SELECT player_name, shot_accuracy, goals
FROM dbo.sa_soccer_dataset;
```

	player_name	shot_accuracy	goals
1	Siyanda Dlamini	83.6999969482422	9
2	Thabo Ndlovu	68.4000015258789	98
3	Vusi Molefe	79	99
4	Thembi Mahlangu	42.9000015258789	1
5	Nokuthula Sithole	74	2
6	Thembi Sithole	70.6999969482422	3
7	Siyanda Mahlangu	54.2000007629395	6
8	Lerato Mashaba	68.5	77
9	Nomsa Mahlangu	56.0999984741211	80
10	Tumelo Khumalo	46	48
11	Gugu Molefe	83.1999969482422	7
12	Thembi Mokoena	56.7000007629395	1
13	Thabo Sithole	80.5999984741211	14

Query executed successfully. DELL-ROY\SQLEXPRESS (16.0 RTM) DELL-ROY\Dallas (70) sa_soccer 00:00:00 Row: 1, Col: 1 300 rows

Q10

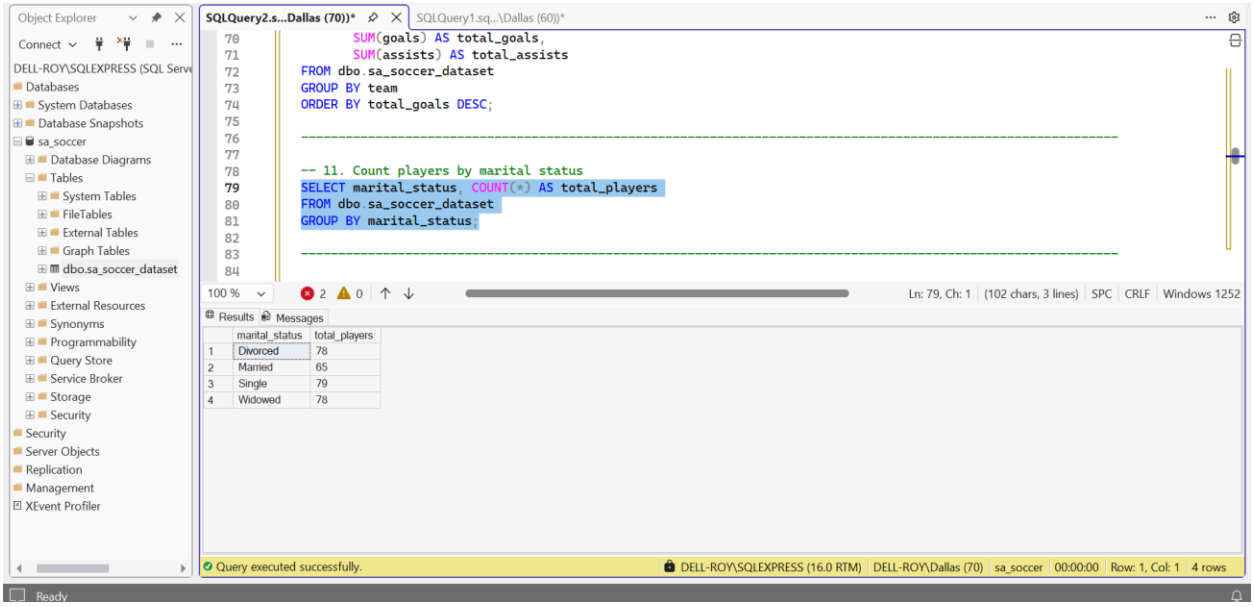


```
FROM dbo.sa_soccer_dataset;

-- 10. Total goals and assists per team
SELECT team,
       SUM(goals) AS total_goals,
       SUM(assists) AS total_assists
FROM dbo.sa_soccer_dataset
GROUP BY team
ORDER BY total_goals DESC;

-- 11. Count players by marital status
```

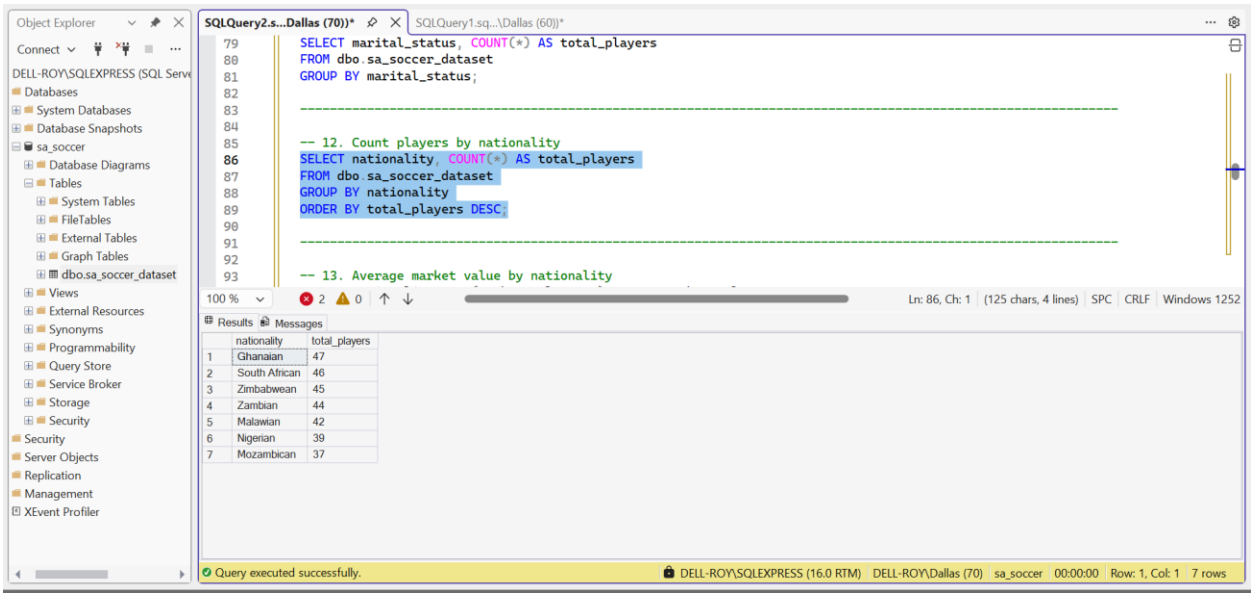
	team	total_goals	total_assists
1	Polokwane City	1300	783
2	Sekhukhune United	842	608
3	Moroka Swallows	729	452
4	Stellenbosch FC	725	514
5	Chippa United	684	205
6	Golden Arrows	676	519
7	Bloemfontein Celtic	613	566
8	Kaizer Chiefs	597	481
9	SuperSport United	580	514
10	Mamelodi Sundowns	570	475
11	AmaZulu FC	546	568
12	Royal AM	544	480
13	TS Galaxy	541	337

Query executed successfully. DELL-ROY\SQLEXPRESS (16.0 RTM) DELL-ROY\Dallas (70) sa_soccer 00:00:00 Row: 1, Col: 1 16 rows

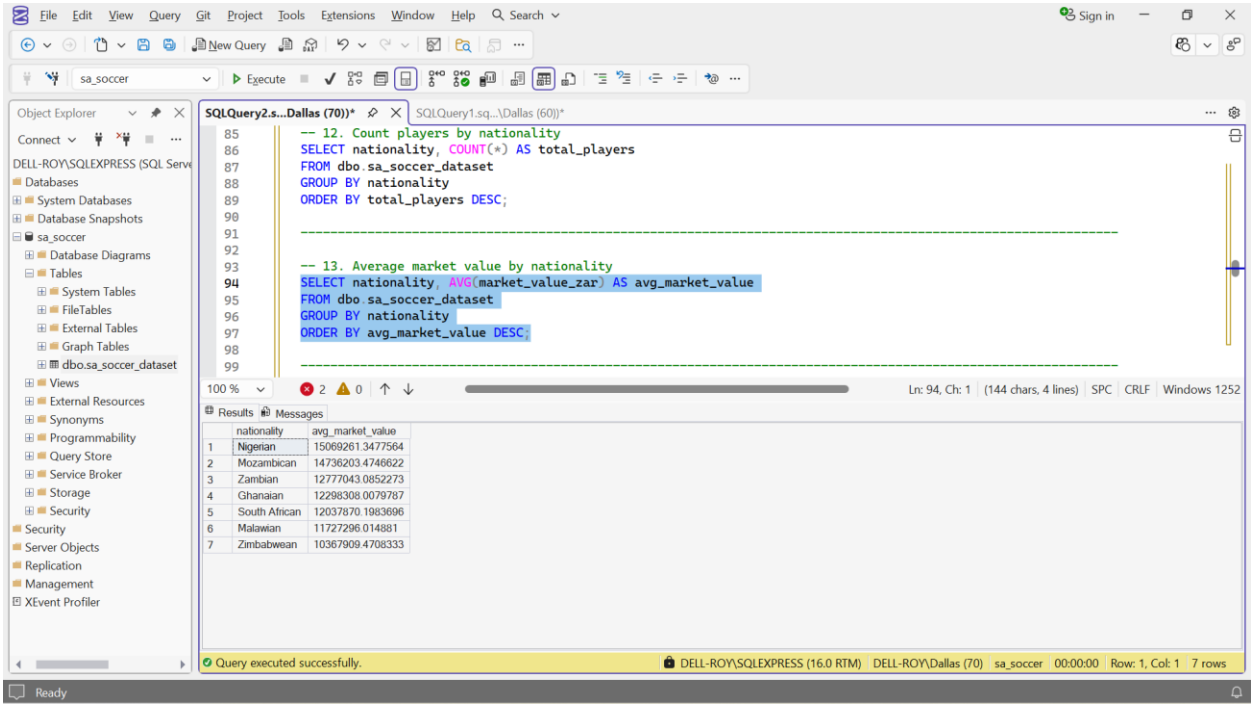
Q11


SUM(goals) AS total_goals,
SUM(assists) AS total_assists
FROM dbo.sa_soccer_dataset
GROUP BY team
ORDER BY total_goals DESC;
-- 11. Count players by marital status
SELECT marital_status, COUNT(*) AS total_players
FROM dbo.sa_soccer_dataset
GROUP BY marital_status;
marital_status total_players
1 Divorced 78
2 Married 65
3 Single 79
4 Widowed 78
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
4 rows

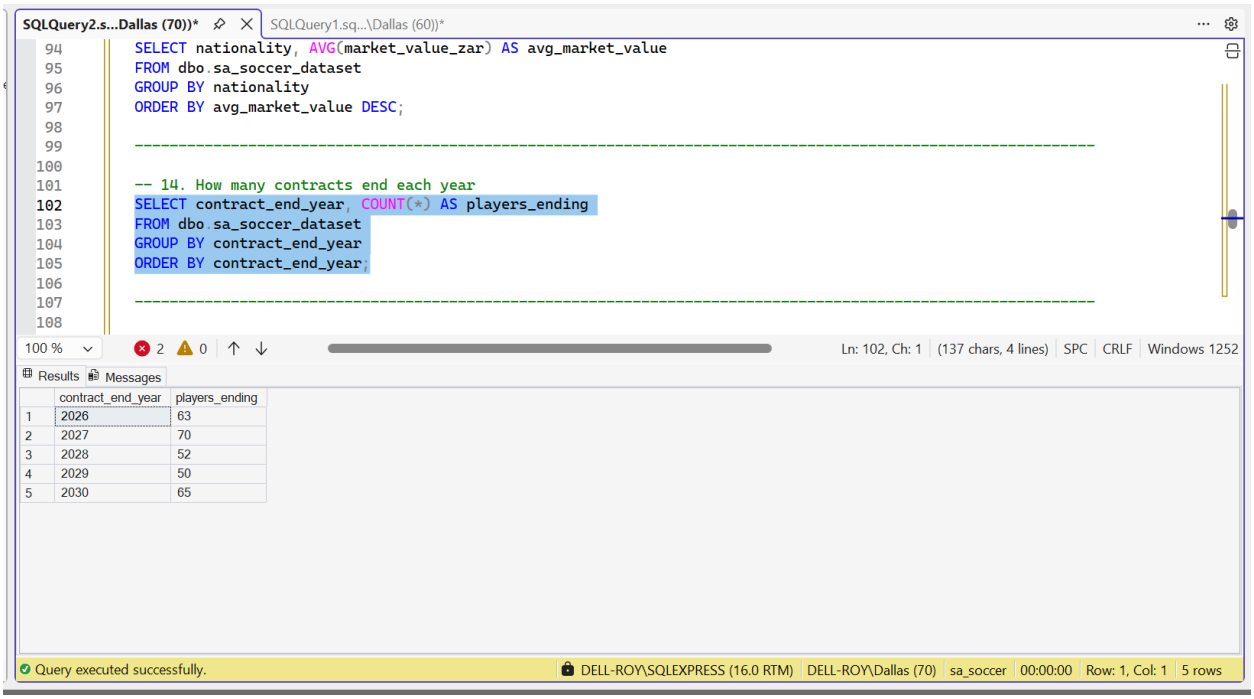
Q12


SELECT marital_status, COUNT(*) AS total_players
FROM dbo.sa_soccer_dataset
GROUP BY marital_status;
-- 12. Count players by nationality
SELECT nationality, COUNT(*) AS total_players
FROM dbo.sa_soccer_dataset
GROUP BY nationality
ORDER BY total_players DESC;
-- 13. Average market value by nationality
nationality total_players
1 Ghanaian 47
2 South African 46
3 Zimbabwean 45
4 Zambian 44
5 Malawian 42
6 Nigerian 39
7 Mozambican 37
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
7 rows

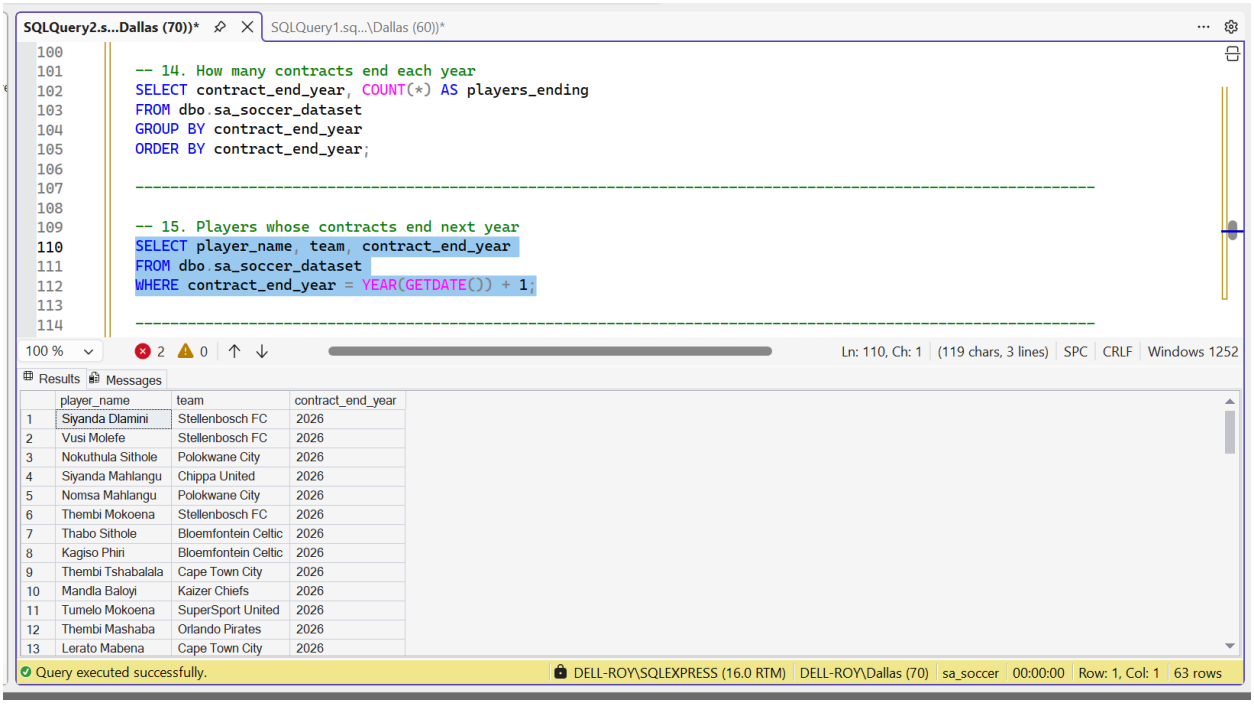
Q13


-- 12. Count players by nationality
SELECT nationality, COUNT(*) AS total_players
FROM dbo.sa_soccer_dataset
GROUP BY nationality
ORDER BY total_players DESC;
-- 13. Average market value by nationality
SELECT nationality, AVG(market_value_zar) AS avg_market_value
FROM dbo.sa_soccer_dataset
GROUP BY nationality
ORDER BY avg_market_value DESC;
nationality avg_market_value
1 Nigerian 15069261.3477564
2 Mozambican 14736203.4746622
3 Zambian 12777043.0852273
4 Ghanaian 12298308.0079787
5 South African 12037870.1983696
6 Malawian 11727296.014881
7 Zimbabwean 10367909.4708333
Query executed successfully.

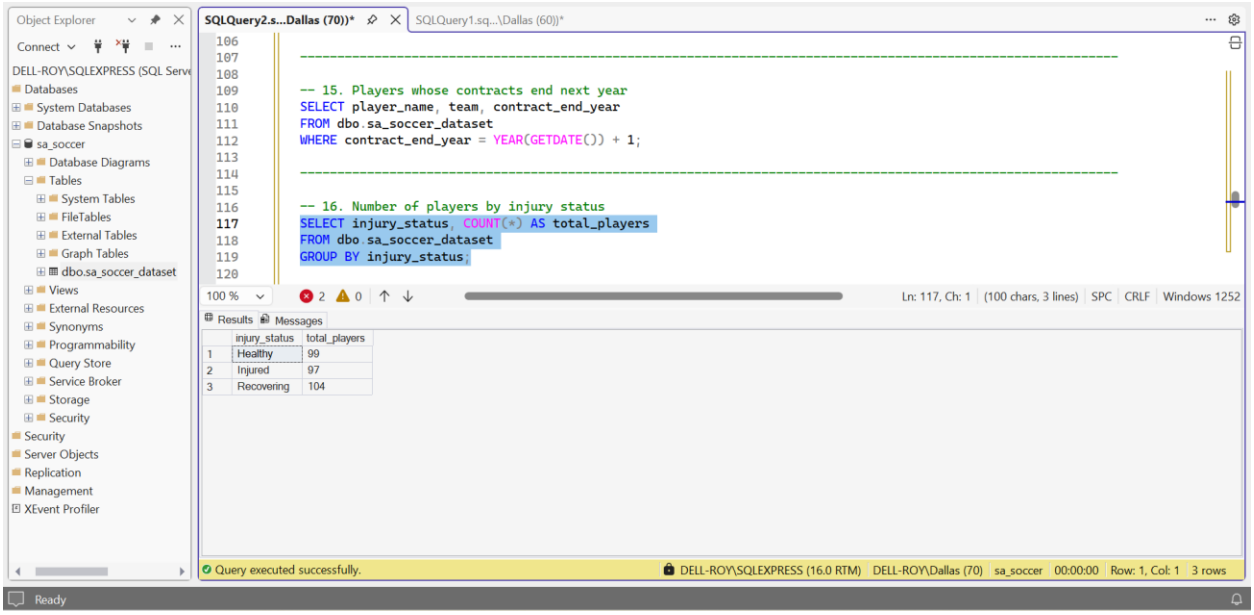
Q14


SELECT nationality, AVG(market_value_zar) AS avg_market_value
FROM dbo.sa_soccer_dataset
GROUP BY nationality
ORDER BY avg_market_value DESC;
-- 14. How many contracts end each year
SELECT contract_end_year, COUNT(*) AS players_ending
FROM dbo.sa_soccer_dataset
GROUP BY contract_end_year
ORDER BY contract_end_year;
contract_end_year players_ending
1 2026 63
2 2027 70
3 2028 52
4 2029 50
5 2030 65
Query executed successfully.

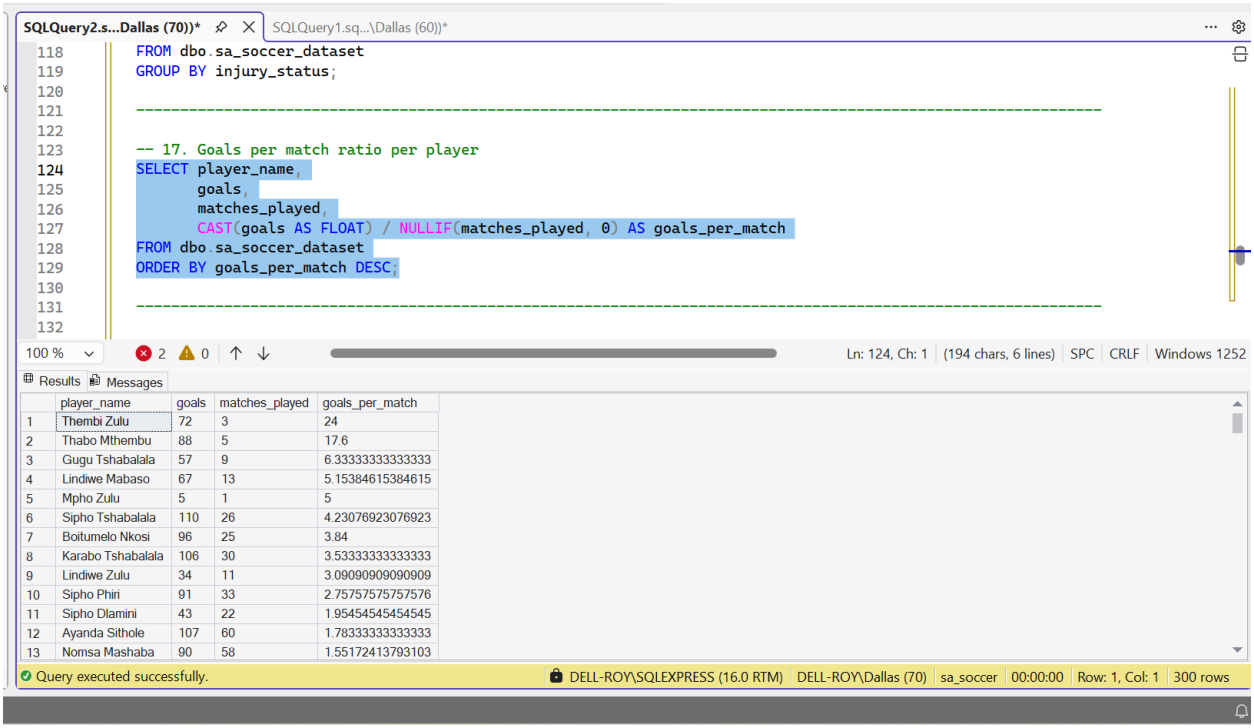
Q15


SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
-- 14. How many contracts end each year
SELECT contract_end_year, COUNT(*) AS players_ending
FROM dbo.sa_soccer_dataset
GROUP BY contract_end_year
ORDER BY contract_end_year;
-- 15. Players whose contracts end next year
SELECT player_name, team, contract_end_year
FROM dbo.sa_soccer_dataset
WHERE contract_end_year = YEAR(GETDATE()) + 1;
Results
Messages
player_name team contract_end_year
1 Siyanda Dlamini Stellenbosch FC 2026
2 Vusi Molefe Stellenbosch FC 2026
3 Nokuthula Sithole Polokwane City 2026
4 Siyanda Mahlangu Chippa United 2026
5 Nomsa Mahlangu Polokwane City 2026
6 Thembi Mokoena Stellenbosch FC 2026
7 Thabo Sithole Bloemfontein Celtic 2026
8 Kagiso Phiri Bloemfontein Celtic 2026
9 Thembi Tshabalala Cape Town City 2026
10 Mandla Baloyi Kaizer Chiefs 2026
11 Tumelo Mokoena SuperSport United 2026
12 Thembi Mashaba Orlando Pirates 2026
13 Lerato Mabena Cape Town City 2026
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
63 rows

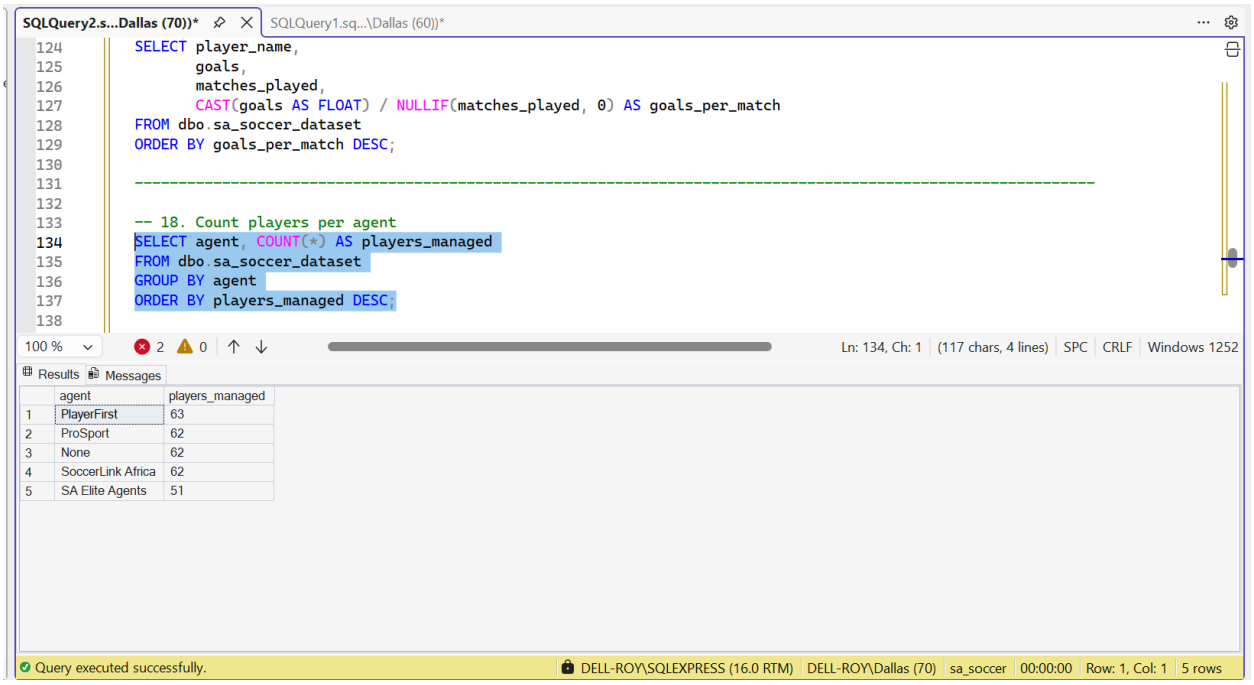
Q16


Object Explorer
Connect
DELL-ROY\SQLEXPRESS (SQL Serve
Databases
System Databases
Database Snapshots
sa_soccer
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.sa_soccer_dataset
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
-- 15. Players whose contracts end next year
SELECT player_name, team, contract_end_year
FROM dbo.sa_soccer_dataset
WHERE contract_end_year = YEAR(GETDATE()) + 1;
-- 16. Number of players by injury status
SELECT injury_status, COUNT(*) AS total_players
FROM dbo.sa_soccer_dataset
GROUP BY injury_status;
Results
Messages
injury_status total_players
1 Healthy 99
2 Injured 97
3 Recovering 104
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
3 rows
Ready

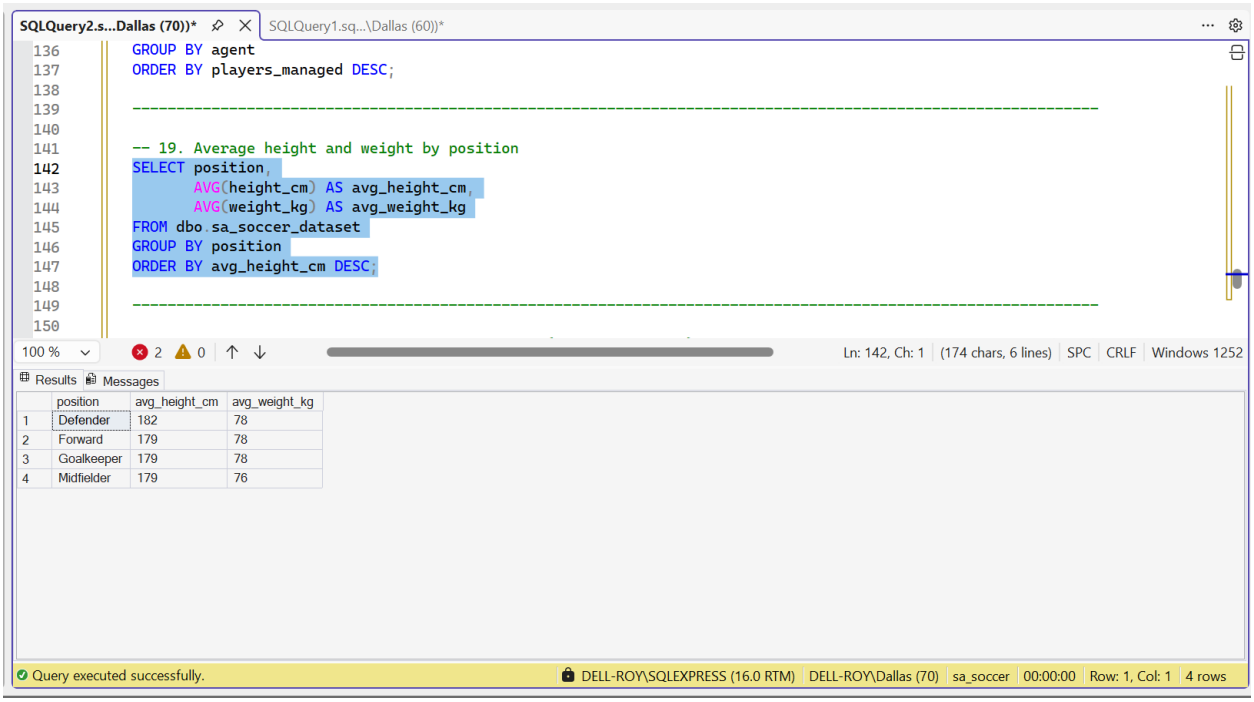
Q17


SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
FROM dbo.sa_soccer_dataset
GROUP BY injury_status;
-- 17. Goals per match ratio per player
SELECT player_name,
goals,
matches_played,
CAST(goals AS FLOAT) / NULLIF(matches_played, 0) AS goals_per_match
FROM dbo.sa_soccer_dataset
ORDER BY goals_per_match DESC;
Ln: 124, Ch: 1
(194 chars, 6 lines)
SPC
CRLF
Windows 1252
Results
Messages
player_name goals matches_played goals_per_match
1 Thembi Zulu 72 3 24
2 Thabo Mthembu 88 5 17.6
3 Gugu Tshabalala 57 9 6.33333333333333
4 Lindiwe Mabaso 67 13 5.15384615384615
5 Mpho Zulu 5 1 5
6 Sipho Tshabalala 110 26 4.23076923076923
7 Boitumelo Nkosi 96 25 3.84
8 Karabo Tshabalala 106 30 3.53333333333333
9 Lindiwe Zulu 34 11 3.09090909090909
10 Sipho Phiri 91 33 2.75757575757576
11 Sipho Dlamini 43 22 1.95454545454545
12 Ayanda Sithole 107 60 1.78333333333333
13 Nomsa Mashaba 90 58 1.55172413793103
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
300 rows

Q18


SQLQuery2.s...Dallas (70))*
SQLQuery1.sq...\Dallas (60))*
SELECT player_name,
goals,
matches_played,
CAST(goals AS FLOAT) / NULLIF(matches_played, 0) AS goals_per_match
FROM dbo.sa_soccer_dataset
ORDER BY goals_per_match DESC;
-- 18. Count players per agent
SELECT agent, COUNT(*) AS players_managed
FROM dbo.sa_soccer_dataset
GROUP BY agent
ORDER BY players_managed DESC;
Ln: 134, Ch: 1
(117 chars, 4 lines)
SPC
CRLF
Windows 1252
Results
Messages
agent players_managed
1 PlayerFirst 63
2 ProSport 62
3 None 62
4 SoccerLink Africa 62
5 SA Elite Agents 51
Query executed successfully.
DELL-ROY\SQLEXPRESS (16.0 RTM)
DELL-ROY\Dallas (70)
sa_soccer
00:00:00
Row: 1, Col: 1
5 rows

Q19

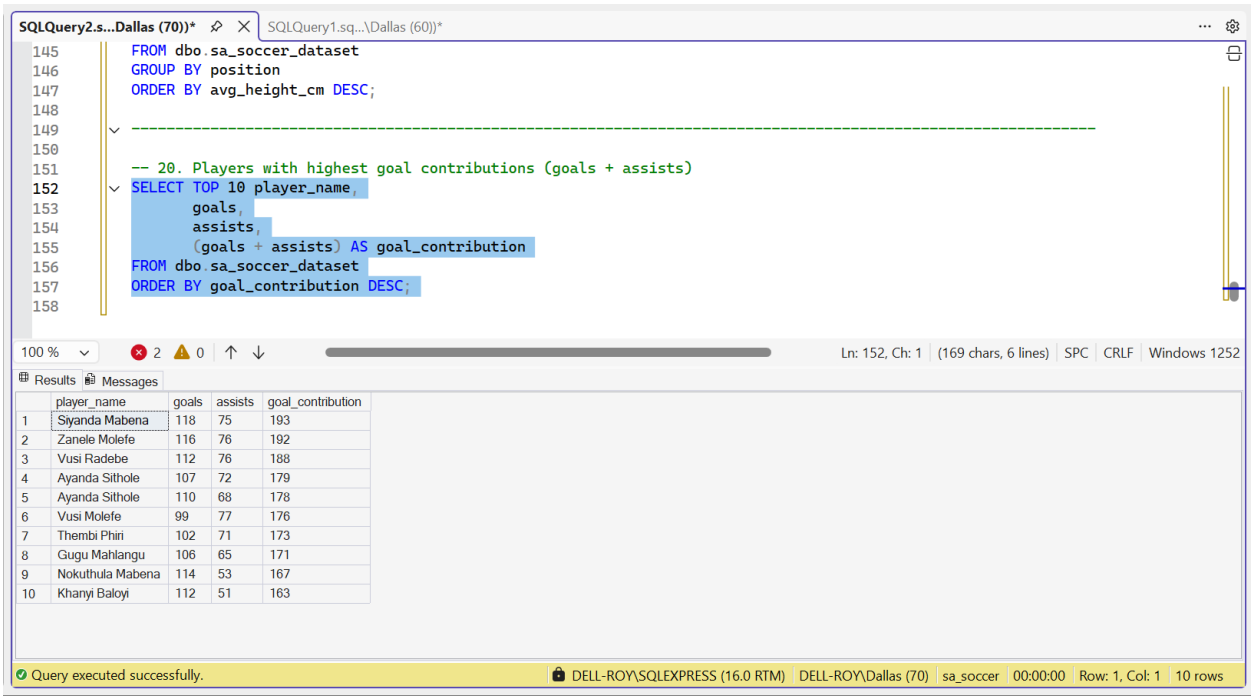


```
GROUP BY agent
ORDER BY players_managed DESC;

-- 19. Average height and weight by position
SELECT position,
       AVG(height_cm) AS avg_height_cm,
       AVG(weight_kg) AS avg_weight_kg
FROM dbo.sa_soccer_dataset
GROUP BY position
ORDER BY avg_height_cm DESC;
```

	position	avg_height_cm	avg_weight_kg
1	Defender	182	78
2	Forward	179	78
3	Goalkeeper	179	78
4	Midfielder	179	76

Query executed successfully.

Q20



```
FROM dbo.sa_soccer_dataset
GROUP BY position
ORDER BY avg_height_cm DESC;

-- 20. Players with highest goal contributions (goals + assists)
SELECT TOP 10 player_name,
       goals,
       assists,
       (goals + assists) AS goal_contribution
FROM dbo.sa_soccer_dataset
ORDER BY goal_contribution DESC;
```

	player_name	goals	assists	goal_contribution
1	Siyanda Mabena	118	75	193
2	Zanele Molefe	116	76	192
3	Vusi Radebe	112	76	188
4	Ayanda Sithole	107	72	179
5	Ayanda Sithole	110	68	178
6	Vusi Molefe	99	77	176
7	Thembi Phiri	102	71	173
8	Gugu Mahlangu	106	65	171
9	Nokuthula Mabena	114	53	167
10	Khanyi Baloyi	112	51	163

Query executed successfully.