

Sql Server -Exercise Answers

The screenshot shows the SQL Server Management Studio interface. In the Object Explorer, a connection to 'FADZAI21 (SQL Server 16.0.1000.6 - Fadzai21\sscoo)' is selected. In the center pane, a query window titled 'x2bj2wqa.sql ...l2f1\sscoo (53)' displays the following T-SQL code:

```
1 SELECT TOP (100) [player_name]
2   [team]
3   [date_of_birth]
4   [age]
5   [marital_status]
6   [number_of_kids]
7   [nationality]
8   [country_of_birth]
9   [position]
10  [preferred_foot]
11  [height_cm]
12  [weight_kg]
13  [jersey_number]
14  [injury_status]
```

The results pane shows a table with 10 rows of player data. The columns are: player_name, team, date_of_birth, age, marital_status, number_of_kids, nationality, country_of_birth, position, preferred_foot, height. The data includes players like Syanda Dlamini, Thabo Ndlovu, Vusi Molefe, Thembu Mahlangu, Nokuthula Sithole, etc., from various teams and countries.

Question 1

The screenshot shows the SQL Server Management Studio interface. In the Object Explorer, a connection to 'FADZAI21 (SQL Server 16.0.1000.6 - Fadzai21\sscoo)' is selected. In the center pane, a query window titled 'x2bj2wqa.sql - not connected' displays the following T-SQL code:

```
31   ,[years_at_club]
32   ,[contract_end_year]
33   ,[average_salary_zar]
34   ,[market_value_zar]
35   ,[signing_bonus_zar]
36   ,[release_clause_zar]
37   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
38
39
40  -----2. Count the total number of players in the dataset.
41  SELECT COUNT(*) AS TotalPlayers
42  FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
43
44
45  -----3. List all unique teams in the league.
```

The results pane shows a table with 1 row, labeled 'TotalPlayers', containing the value 300.

Question 2

```

File Edit View Query Git Project Tools Extensions Window Help | Search Solution1
File Edit View Query Git Project Tools Extensions Window Help | Search Solution1
Object Explorer
Connect master | Execute | Copilot
x2bj2wqa.sql - not connected evntoxm.sql..!sscoo (61)* ✎ X
40 -----2. Count the total number of players in the dataset.
41 SELECT COUNT(*) AS TotalPlayers
42 FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
43
44 -----3. List all unique teams in the league.
45
46 SELECT DISTINCT team
47 FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
48
49 -----4. Count how many players are in each team.
50
51
52
53 SELECT
54     team,
55     COUNT(*) AS players
56
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100
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 Monika Swallows
9 Orlando Pirates
10 Polokwane City
11 Richards Bay FC

```

Query executed successfully.

Question 3

```

File Edit View Query Git Project Tools Extensions Window Help | Search Solution1
File Edit View Query Git Project Tools Extensions Window Help | Search Solution1
Object Explorer
Connect master | Execute | Copilot
x2bj2wqa.sql - not connected evntoxm.sql..!sscoo (61)* ✎ X
47 -----4. Count how many players are in each team.
48
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100
Results Messages
team players
1 AmaZulu FC 22
2 Bloemfontein Celtic 17
3 Cape Town City 15
4 Chippa United 21
5 Golden Arrows 23
6 Kaizer Chiefs 20
7 Mamelodi Sundowns 19
8 Monika Swallows 19
9 Orlando Pirates 9
10 Polokwane City 27
11 Richards Bay FC 13

```

Query executed successfully.

Question 4

```

54
55     team,
56     COUNT(*) AS players
57   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
58   Group By team
59
60   -----5. Identify the top 10 players with the most goals.
61
62   SELECT TOP 10
63     player_name,
64     goals
65   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
66   ORDER BY goals DESC;
67
68   -----6. Find the average salary for players in each team.
69
70
71
72
73
74
75
76
77

```

player_name	goals
Vusi Molefe	99
Thabo Ndlovu	98
Gugu Hlongwane	98
Thabo Sithole	98
Mandla Mabena	98
Mpho Mahlangu	97
Bontumelo Nkosi	96
Mpho Radube	92
Khanyi Nkosi	92
Sipho Phiri	91

Query executed successfully.

Question 5

```

62
63     player_name,
64     goals
65   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
66   ORDER BY goals DESC;
67
68   -----6. Find the average salary for players in each team.
69
70
71
72
73
74
75
76
77

```

team	average_salary
Amazulu FC	172467.569545455
Bloemfontein Celtic	163683.838823529
Cape Town City	208407.432
Orlando United	180947.634761905
Golden Arrows	199057.643913043
Kaizer Chiefs	188954.4615
Mamelodi Sundowns	194404.494736842
Monica Swallows	186786.827894737
Orlando Pirates	178570.593333333
Polokwane City	171738.877777778
Richards Bay FC	193006.199230769

Query executed successfully.

Question 6

The screenshot shows the SQL Server Management Studio interface. The Object Explorer on the left shows the connection to FADZAI21 (SQL Server 16.0.1000.6 - Fadzai21\sscoo). The current database is master. The query window displays two SQL statements. The first statement calculates the average salary for each team:

```

77
78     team,
79     AVG(CAST(average_salary_zar AS DECIMAL(18,2))) AS average_salary
80   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
81   GROUP BY team;
82
83
84 -----7. Retrieve the top 10 players with the highest market value.
85
86   Select Top 10
87     player_name,
88     market_value_zar
89   From [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
90   Order By market_value_zar ASC;
91
92

```

The results grid shows the top 10 players with their names and market values:

	player_name	market_value_zar
1	Kagiso Mashaba	10143610.76
2	Kabelo Mabena	10165897.84
3	Lindwe Mabaso	10204385.12
4	Lebohang Tshabalala	10232588.26
5	Kagiso Khumalo	10250362.12
6	Khanyi Baloyi	10481992.09
7	Mandla Mabena	10483151.43
8	Lindwe Tshabalala	10490972.73
9	Ayanda Molefe	10604204.4
10	Mpho Zulu	1061705.4

At the bottom of the results grid, it says "Query executed successfully." The status bar at the bottom right shows the date and time: 2025/11/24 18:11.

Question 7

The screenshot shows the SQL Server Management Studio interface. The Object Explorer on the left shows the connection to FADZAI21 (SQL Server 16.0.1000.6 - Fadzai21\sscoo). The current database is master. The query window displays two SQL statements. The second statement calculates the average passing accuracy for each position:

```

87
88   player_name,
89   market_value_zar
90   From [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
91   Order By market_value_zar ASC;
92
93
94 -----8. Calculate the average passing accuracy for each position.
95
96   SELECT
97     position,
98     AVG(CAST(passing_accuracy AS FLOAT)) AS avg_passing_accuracy
99   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
100  GROUP BY position;
101
102

```

The results grid shows the average passing accuracy for four positions:

	position	avg_passing_accuracy
1	Defender	82.6642857142857
2	Forward	83.210843373494
3	Goalkeeper	83.9397058823529
4	Midfielder	82.8177215189873

At the bottom of the results grid, it says "Query executed successfully." The status bar at the bottom right shows the date and time: 2025/11/24 18:12.

Question 8

```

98     AVG(CAST(passing_accuracy AS FLOAT)) AS avg_passing_accuracy
99     FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
100    GROUP BY position;
101
102    -----
103
104    -----9. Compare shot accuracy with goals to find correlations.
105
106    SELECT
107        player_name,
108        TRY_CAST(shot_accuracy AS DECIMAL(5, 2)) AS shot_accuracy,
109        goals
110        FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
111
112    -----
113

```

	player_name	shot_accuracy	goals
1	Siyanda Dlamini	83.70	9
2	Thabo Ndlovu	68.40	98
3	Vusi Molefe	79.00	99
4	Thembi Mahlangu	42.90	1
5	Nokuthula Sthole	74.00	2
6	Thembi Sthole	70.70	3
7	Siyanda Mahlangu	54.20	6
8	Lerato Mashaba	68.50	77
9	Nomcebo Mahlangu	56.10	80
10	Tumelo Khumalo	46.00	48
11	Gugu Molefe	83.20	7

Query executed successfully.

Question 9

```

110    FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
111
112    -----
113
114    -----10. Compute total goals and assists for each team.
115
116    SELECT
117        team,
118        SUM(CAST(goals AS INT)) AS total_goals,
119        SUM(CAST(assists AS INT)) AS total_assists
120        FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
121        GROUP BY team;
122
123    -----
124
125    -----11. Count players by their marital status.

```

	team	total_goals	total_assists
1	AmaZulu FC	546	568
2	Bloemfontein Celtic	613	566
3	Cape Town City	374	284
4	Chippa United	684	205
5	Golden Arrows	676	519
6	Kaizer Chiefs	597	481
7	Mamelodi Sundowns	570	475
8	Moroka Swallows	729	452
9	Orlando Pirates	170	225
10	Polokwane City	1300	783
11	Richards Bay FC	453	273

Query executed successfully.

Question 10

The screenshot shows the SQL Server Management Studio (SSMS) interface. The query window displays a script for question 11, which counts players by their marital status. The results show four rows: Divorced (78), Married (65), Single (79), and Widowed (78). The status bar at the bottom indicates the query was executed successfully.

```
118     SUM(CAST(goals AS INT)) AS total_goals,
119     SUM(CAST(assists AS INT)) AS total_assists
120   FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
121   GROUP BY team;
122
123
124
125
126   <-----11. Count players by their marital status.
127
128   Select
129     marital_status,
130     COUNT(player_name) AS players
131   From [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
132   Group By marital_status;
133
```

marital_status	players
1 Divorced	78
2 Married	65
3 Single	79
4 Widowed	78

Query executed successfully. FADZAI21 (16.0 RTM) | FADZAI21\sscoo (6) | master | 00:00:00 | 4 rows

Question 11

The screenshot shows the SSMS interface. The query window displays a script for question 12, which counts players by nationality. The results show seven rows: Ghanaian (47), Malawian (42), Mozambican (37), Nigerian (39), South African (46), Zambian (44), and Zimbabwean (45). The status bar at the bottom indicates the query was executed successfully.

```
126
127   <-----12. Count players by nationality
128
129   Select
130     nationality,
131     COUNT(player_name) AS players
132   From [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
133   Group By nationality;
134
135
136
137
138
139
140
141
```

nationality	players
1 Ghanaian	47
2 Malawian	42
3 Mozambican	37
4 Nigerian	39
5 South African	46
6 Zambian	44
7 Zimbabwean	45

Query executed successfully. FADZAI21 (16.0 RTM) | FADZAI21\sscoo (6) | master | 00:00:00 | 7 rows

Question 12

The screenshot shows the SSMS interface with two queries in the editor:

```
137 COUNT(player_name) AS players
138 From [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
139 Group By nationality;
140
141 -----13. Find average market value grouped by nationality-----
142
143 Select Nationality,
144 AVG(CAST([market_value_zar] AS FLOAT)) AS average_market_value
145 From [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
146 Group By nationality;
147
148
149 -----14. Determine how many player contracts end in each year.
150
151
152
```

The results for the second query are displayed in a table:

Nationality	average_market_value
1 Ghanaian	12298308.0365957
2 Malawian	11727296.0554762
3 Mozambican	14736203.5943243
4 Nigerian	15069261.3964103
5 South African	12037870.2363043
6 Zambian	12777043.0611364
7 Zimbabwean	10367909.5322222

Below the results, a message bar indicates: "Query executed successfully." and shows the session details: FADZAI21 (16.0 RTM) | FADZAI21\sscoo (61) | master | 00:00:00 | 7 rows.

Question 13

The screenshot shows the SSMS interface with two T-SQL scripts in the editor:

```
145 AVG(CAST([market_value_zar] AS FLOAT)) AS average_market_value
146
147
148
149 -----14. Determine how many player contracts end in each year.
150
151
152
153 SELECT
154 contract_end_year,
155 COUNT(*) AS contracts_ending
156 FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
157 GROUP BY contract_end_year
158
159
160
```

The results for the second query are displayed in a table:

contract_end_year	contracts_ending
1 2026	63
2 2027	70
3 2028	52
4 2029	50
5 2030	65

Below the results, a message bar indicates: "Query executed successfully." and shows the session details: FADZAI21 (16.0 RTM) | FADZAI21\sscoo (61) | master | 00:00:00 | 5 rows.

Question 14

```

158     ORDER BY contract_end_year;
159
160
161
162
163
164
165     player_name,
166     team,
167     contract_end_year
168 FROM [Soccer Analysis DB1] [dbo].[ketro_sa_soccer_dataset_advanced]
169 WHERE contract_end_year = YEAR(GETDATE()) + 1;
170
171
172
173

```

No issues found

	player_name	team	contract_end_year
1	Siyanda Dlamini	Stellenbosch FC	2026
2	Vusi Molefe	Stellenbosch FC	2026
3	Nokuthula Sithole	Pokokwane City	2026
4	Siyanda Mahlangu	Chippa United	2026
5	Nomsa Mahlangu	Pokokwane City	2026
6	Thembu 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 Balozi	Kaizer Chiefs	2026
11	Tumelo Mokoena	SuperSport United	2026

Query executed successfully.

Question 15

```

165     player_name,
166     team,
167     contract_end_year
168 FROM [Soccer Analysis DB1] [dbo].[ketro_sa_soccer_dataset_advanced]
169 WHERE contract_end_year = YEAR(GETDATE()) + 1;
170
171
172
173
174
175     injury_status,
176     COUNT(*) AS number_of_players
177
178
179
180

```

No issues found

	injury_status	number_of_players
1	Healthy	99
2	Injured	97
3	Recovering	104

Query executed successfully.

Question 16

SSMS Screenshot for Question 17:

```

176     COUNT(*) AS number_of_players
177     FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
178     GROUP BY injury_status
179     ORDER BY injury_status;
180
181
182
183
184
185     SELECT
186         player_name,
187         TRY_CAST(goals AS FLOAT) / NULLIF(TRY_CAST(matches_played AS FLOAT), 0) AS goals_per_match
188     FROM [Soccer Analysis DB1].[dbo].[ketro_sa_soccer_dataset_advanced]
189
190
191

```

Results:

player_name	goals_per_match
Siyanda Dlamini	0.16981320754717
Thabo Ndlovu	0.360294117647059
Vusi Molefe	0.248743718592965
Thembi Mahlangu	0.00740740740740741
Nokuthula Sthole	0.0172413793103448
Thembi Sthole	0.010752688172043
Siyanda Mahlangu	0.333333333333333
Lerato Mashaba	0.31950207468797
Nomsa Mahlangu	0.248447204968944
Tumelo Khumalo	0.19047619047619
Gugu Molefe	0.0184696569920844

Query executed successfully.

Question 17

SSMS Screenshot for Question 18:

```

187     TRY_CAST(goals AS FLOAT) / NULLIF(TRY_CAST(matches_played AS FLOAT), 0) AS goals_per_match
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202

```

Results:

agent	number_of_players
PlayerFirst	63
ProSport	62
None	62
SoccerLink Africa	62
SA Elite Agents	51

Query executed successfully.

Question 18

File Edit View Query Git Project Tools Extensions Window Help Search Solution1

master | Execute | Copilot

Object Explorer

FADZAI21 (SQL Server 16.0.1000.6 - Fadzai21\sscoo)

```

199 ORDER BY COUNT(player_name) DESC;
200
201
202
203 -----19. Calculate average height and weight by player position.---
204
205     SELECT
206         position,
207             AVG(TRY_CAST(height_cm AS FLOAT)) AS avg_height,
208             AVG(TRY_CAST(weight_kg AS FLOAT)) AS avg_weight
209     FROM [Soccer Analysis DB1] [dbo] [ketro_sa_soccer_dataset_advanced]
210     GROUP BY position
211     ORDER BY position.
212
213
214

```

Results Messages

position	avg_height	avg_weight
Defender	182.414285714286	78.1285714285714
Forward	179.21686746988	78.7590361445783
Goalkeeper	179.294117647059	78.9852941176471
Midfielder	179.405053291139	76.0379746835443

No issues found

Query executed successfully.

FADZAI21 (16.0 RTM) | FADZAI21\sscoo (61) | master | 00:00:00 | 4 rows

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Question 19

File Edit View Query Git Project Tools Extensions Window Help Search Solution1

master | Execute | Copilot

Object Explorer

FADZAI21 (SQL Server 16.0.1000.6 - Fadzai21\sscoo)

```

210 GROUP BY position
211
212
213
214
215 -----20. Identify players with the highest combined goals and assists.---
216
217     SELECT
218         player_name,
219         team,
220             TRY_CAST(goals AS INT) + TRY_CAST(assists AS INT) AS total_contributions
221     FROM [Soccer Analysis DB1] [dbo] [ketro_sa_soccer_dataset_advanced]
222     ORDER BY TRY_CAST(goals AS INT) + TRY_CAST(assists AS INT) DESC;
223
224
225

```

Results Messages

player_name	team	total_contributions
Siyanda Mabena	Sekhukhune United	193
Zanele Molefe	SuperSport United	192
Vusi Radebe	Stellenbosch FC	188
Ayanda Sithole	Golden Arrows	179
Ayanda Sithole	Bloemfontein Celtic	178
Vusi Molefe	Stellenbosch FC	176
Thembisa Phiri	Royal AM	173
Gugu Mahlungu	Bloemfontein Celtic	171
Nokuthula Mabena	SuperSport United	167
Khanyi Baloyi	Bloemfontein Celtic	163
Zanele Phiri	Ts Galaxy	161

No issues found

Query executed successfully.

FADZAI21 (16.0 RTM) | FADZAI21\sscoo (61) | master | 00:00:00 | 300 rows

Ready Add to Source Control 18:17 ENG INTL 2025/11/24

Question 20