

MADINOGE SERAKI MOTUBATSE

PRACTICAL: South African Soccer Dataset – SQL

1. View the first 100 rows of the dataset to understand its structure.

```
8  || |----1.View the first 100 rows of the dataset to understand its structure
9
10 select top 100 * from [LIZA].[dbo].[ketros_sa_soccer_dataset_advanced]
11
```

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	player_name	team	date_of_birth	age	marital_status	number_of_kids	nationality	country_of_birth	position	preferred_foot	height_cm	weight_kg	jersey_number	injury_status	agent	matches_played	min
1	Siyanda Dlamini	Stellenbosch FC	1995-05-28 00:00:00.0000000	30	Widowed	0	South African	South African	Defender	Right	167	71	35	Recovering	SA Elite Agents	53	265
2	Thabo Ndlovu	Cape Town City	2004-06-01 00:00:00.0000000	21	Single	1	Zimbabwean	Zimbabwean	Forward	Right	183	73	40	Recovering	SoccerLink Africa	272	231
3	Vusi Molefe	Stellenbosch FC	2006-09-20 00:00:00.0000000	19	Single	0	Nigerian	Nigerian	Forward	Left	167	66	65	Recovering	PlayerFirst	398	218
4	Thembi Mahlangu	Bloemfontein Celtic	2004-02-08 00:00:00.0000000	21	Divorced	0	Zambian	Zambian	Goalkeeper	Left	166	93	24	Injured	None	135	796
5	Nokuthula Sithole	Polokwane City	2003-03-18 00:00:00.0000000	22	Divorced	3	Nigerian	Nigerian	Goalkeeper	Both	193	88	79	Injured	SoccerLink Africa	116	603
6	Thembi Sithole	Kaizer Chiefs	1989-02-14 00:00:00.0000000	36	Married	2	Nigerian	Nigerian	Goalkeeper	Left	193	79	54	Healthy	ProSport	279	181
7	Siyanda Mahlangu	Chippa United	1989-12-09 00:00:00.0000000	36	Single	0	Zambian	Zambian	Defender	Both	181	67	27	Healthy	SoccerLink Africa	18	122
8	Lerato Mashaba	Polokwane City	1998-01-31 00:00:00.0000000	27	Widowed	0	Ghanaian	Ghanaian	Forward	Right	181	65	85	Healthy	None	241	196

2. Count the total number of players in the dataset.

```
14 select * from [LIZA].[dbo].[ketros_sa_soccer_dataset_advanced]
15
16 select count (*) as Total_players
17 from [LIZA].[dbo].[ketros_sa_soccer_dataset_advanced]
18
```

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	player_name	team	date_of_birth	age	marital_status	number_of_kids	nationality	country_of_birth	position	preferred_foot	height_cm	weight_kg	jersey_number	injury_status	agent	matches_played	min
1	Siyanda Dlamini	Stellenbosch FC	1995-05-28 00:00:00.0000000	30	Widowed	0	South African	South African	Defender	Right	167	71	35	Recovering	SA Elite Agents	53	265
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6	Thembi Sithole	Kaizer Chiefs	1989-02-14 00:00:00.0000000	36	Married	2	Nigerian	Nigerian	Goalkeeper	Left	193	79	54	Healthy	ProSport	279	181

	Total_players
1	300

3. List all unique teams in the league.

```
19 -----3. List all unique teams in the league.
20
21 select distinct team
22 from [LIZA].[dbo].[ketros_sa_soccer_dataset_advanced]
23
```

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	team
1	Amazulu FC
2	Bloemfontein Celtic
3	Cape Town City
4	Chippa United
5	Golden Arrows
6	Kaizer Chiefs
7	Mamelodi Sunders
8	Moroka Swallows
9	Orlando Pirates
10	Polokwane City
11	Richards Bay FC
12	Royal AM
13	Sekhukhune United
14	Stellenbosch FC
15	SuperSport United
16	TS Galaxy

4. Count how many players are in each team.

```

24      -----4. Count how many players are in each team.
25      select team, count(*) as player_count
26      from [LIZA].[dbo].[ketrosoccerdataset_advanced]
27      group by team;
28

```

177 % No issues found

Results Messages

	team	player_count
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	Moroka Swallows	19
9	Orlando Pirates	9
10	Polokwane City	27
11	Richards Bay FC	13
12	Royal AM	18
13	Sekhukhune United	17
14	Stellenbosch FC	20
15	SuperSport United	20
16	TS Galaxy	20

5. Identify the top 10 players with the most goals.

```

30      -----5. Identify the top 10 players with the most goals.
31      select top 10 player_name, goals
32      from [LIZA].[dbo].[ketrosoccerdataset_advanced]
33      order by goals DESC;
34

```

177 % No issues found

Results Messages

	player_name	goals
1	Vusi Molefe	99
2	Thabo Ndlovu	98
3	Gugu Hlongwe	98
4	Thabo Sithole	98
5	Mandla Makhanya	98
6	Mpho Mahla	97
7	Bolumelo Nkomo	96
8	Mpho Radebe	92
9	Khanyo Nkomo	92
10	Sipho Phiri	91

6. Find the average salary for players in each team.

```

35      -----6. Find the average salary for players in each team.
36
37      SELECT
38          player_name,
39          team,
40          AVG(cast(average_salary_zar as float)) AS avg_salary
41
42      FROM [LIZA].[dbo].[ketrosoccerdataset_advanced]
43      group by team, player_name;
44

```

177 % No issues found

Results Messages

	player_name	team	avg_salary
1	Ayanda Khumalo	Moroka Swallows	272451.65
2	Ayanda Khumalo	Royal AM	270325.23
3	Ayanda Mabaso	Bloemfontein C...	107080.09
4	Ayanda Mokoena	Polokwane City	215173.37
5	Ayanda Molefe	Chippa United	93624.79
6	Ayanda Molefe	Sekhukhune Un...	191175.09
7	Ayanda Mthembu	TS Galaxy	214320.16
8	Ayanda Sithole	AmaZulu FC	110286.96

7. Retrieve the top 10 players with the highest market value.

```

47      -----7. Retrieve the top 10 players with the highest market value.
48
49      select top 10 player_name, market_value_zar
50      from [LIZA].[dbo].[ketrosoccerdataset_advanced]
51      order by market_value_zar desc;
52
53      -----8. Calculate the average passing accuracy for each position.

```

177 % No issues found Ln: 51, Ch:

	player_name	market_value_zar
1	Nokuthula Balozi	9906925.35
2	Gugu Mokoena	9868061.36
3	Khanyo Mthembu	9845842.09
4	Nomsa Hlongwe	975559.35
5	Kabelo Mahlan	9606957.95
6	Kagiso Dlamini	9383118.97
7	Lindiwe Phiri	9352111.61
8	Mpho Radebe	9294272.32
9	Lindiwe Molefe	9277927.61
10	Thembi Tahab	9091048.14

8. Calculate the average passing accuracy for each position.

```

53      -----8. Calculate the average passing accuracy for each position.
54
55      select position, count(*) as avg_passing_accuracy
56      from [LIZA].[dbo].[ketrosoccerdataset_advanced]
57      group by position;
58

```

177 % No issues found

	position	avg_passing_accuracy
1	Defender	70
2	Forward	83
3	Goalke...	68
4	Midfield...	79

9. Compare shot accuracy with goals to find correlations. I could not do, failed

10. Compute total goals and assists for each team.

```

60      -----10. Compute total goals and assists for each team.
61      SELECT
62      team,
63      SUM(cast(goals as int)) AS total_goals,
64      SUM(cast(assists as int)) AS total_assists
65      FROM [LIZA].[dbo].[ketrosoccerdataset_advanced]
66      GROUP BY team;

```

177 % No issues found Ln: 66, Ch:

	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 Sundo...	570	475
8	Moroka Swallows	729	452
9	Orlando Pirates	170	225
10	Polokwane City	1300	783
11	Richards Bay FC	453	273
12	Royal AM	544	480
13	Sekhukhune United	842	608
14	Stellenbosch FC	725	514
15	SuperSport United	580	514
16	TS Galaxy	541	337

11. Count players by their marital status.

```

67      -----11. Count players by their marital status.
68      SELECT
69          marital_status,
70          COUNT(*) as total_player
71      FROM [LIZA].[dbo].[ketrosoccerdatasetadvanced]
72      GROUP BY marital_status;

```

177 % No issues found

Results Messages

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

12. Count players by nationality.

```

73      -----12. Count players by nationality.
74      SELECT
75          nationality,
76          COUNT(*) as total_player
77      FROM [LIZA].[dbo].[ketrosoccerdatasetadvanced]
78      GROUP BY nationality;
79

```

177 % No issues found

Results Messages

	nationality	total_player
2	Malawian	42
3	Mozam...	37
4	Nigerian	39
5	South Af...	46
6	Zambian	44
7	Zimbab...	45

13. Find the average market value grouped by nationality.

```

80      ----13. Find average market value grouped by nationality.
81      SELECT
82          nationality,
83          AVG(cast(market_value_zar as float)) AS avg_market_value
84
85      FROM [LIZA].[dbo].[ketrosoccerdatasetadvanced]
86      group by nationality;

```

177 % No issues found

Results Messages

	nationality	avg_market_value
1	Ghanaian	12298308.0365957
2	Malawian	11727296.0554762
3	Mozam...	14736203.5943243
4	Nigerian	15069261.3964103
5	South Af...	12037870.2363043
6	Zambian	12777043.0611364
7	Zimbab...	10367909.5322222

14. Determine how many player contracts end in each year.

```

87      ----14. Determine how many player contracts end in each year.
88      SELECT
89          contract_end_year,
90          COUNT(distinct player_name) as numberofplayer
91      FROM [LIZA].[dbo].[ketrosoccerdatasetadvanced]
92      GROUP BY contract_end_year;

```

177 % No issues found

	contract_end_year	numberofplayer
1	2026	58
2	2027	62
3	2028	48
4	2029	46
5	2030	62

15. Identify players whose contracts end next year.

```

93      -----15. Identify players whose contracts end next year.
94      SELECT player_name
95      FROM [LIZA].[dbo].[ketrosoccerdatasetadvanced]
96      WHERE contract_end_year = 2026;

```

177 % No issues found

player_name	player_name	player_name
19 Thabo Sithole	34 Sipho Mabaso	49 Khanyi Tshaba...
20 Zanele Phiri	35 Nomsa Dlamini	50 Nomsa Hlong...
21 Ayanda Mabaso	36 Lebogang Mas...	51 Mandla Sithole
22 Karabo Mokoe...	37 Sipho Mabaso	52 Thabo Mashaba
23 Lindiwe Mabaso	38 Thabo Mashaba	53 Lerato Dlamini
24 Gugu Tshabal...	39 Sipho Ngobeni	54 Lerato Tshabal...
25 Mandla Mahla...	40 Khanyi Phiri	55 Ayanda Sithole
26 Gugu Mashaba	41 Thabo Khumalo	56 Karabo Nkosi
27 Thembi Dlamini	42 Lerato Sithole	57 Karabo Mthem...
28 Vusi Radebe	43 Boitumelo Rad...	58 Nomsa Mthem...
29 Lindiwe Zulu	44 Lebogang Mas...	59 Lindiwe Zulu
30 Sipho Phiri	45 Sibusiso Ngob...	60 Vusi Phiri
31 Zanele Zulu	46 Karabo Molefe	61 Tumelo Dlamini
32 Kagiso Molefe	47 Nomsa Zulu	62 Siyanda Mabaso
33 Sipho Mashaba	48 Siyanda Radebe	63 Lindiwe Mabena

16. Summarize the number of players by injury status.

```

97      ----16. Summarize the number of players by injury status.
98
99      select injury_status,
100          COUNT(distinct player_name) as numberofplayer
101      FROM [LIZA].[dbo].[ketrosoccerdatasetadvanced]
102      GROUP BY injury_status;

```

177 % No issues found

	injury_status	numberofplayer
1	Healthy	90
2	Injured	87
3	Recovering	86

17. Calculate goals per match ratio for each player.

104 -----17. Calculate goals per match ratio for each player.
 105 `SELECT` player_name,goals,matches_played,
 106 `CAST`(goals `AS` `FLOAT`) / `NULLIF`(matches_played, 0) `AS` goals_per_match
 107 `FROM` [LIZA].[dbo].[ketro_sa_soccer_dataset_advanced];
 108

177 % No issues found

	player_name	goals	matches_played	goals_per_match
1	Siyanda Dlamini	9	53	0.169811320754717
2	Thabo Ndlovu	98	272	0.360294117647059
3	Vusi Molefe	99	398	0.248743718592965
4	Thembi Mahla...	1	135	0.0074074074074...
5	Nokuthula Sith...	2	116	0.0172413793103...
6	Thembi Sithole	3	279	0.010752688172043
7	Siyanda Mahla...	6	18	0.333333333333333
8	Lerato Mashaba	77	241	0.319502074688797
9	Nomsa Mahla...	80	322	0.248447204968944
10	Tumelo Khum...	48	252	0.19047619047619
11	Gugu Molefe	7	379	0.0184696569920...
12	Thembi Mokoe...	1	296	0.0033783783783...
13	Thabo Sithole	14	229	0.0611353711790...
14	Gugu Mabena	4	155	0.0258064516129...
15	Kagiso Phiri	41	175	0.234285714285714
16	Thembi Tshab...	7	324	0.0216049382716...
17	Sibusiso Molefe	48	349	0.137535816618911

18. Count how many players are managed by each agent.

109 -----18. Count how many players are managed by each agent.
 110 `SELECT`
 111 Agent,
 112 `COUNT`(Player_name) `AS` NumberOfPlayers
 113 `FROM` [LIZA].[dbo].[ketro_sa_soccer_dataset_advanced]
 114 `Group by` agent
 115 `ORDER BY` NumberOfPlayers `DESC`;

177 % No issues found

	Agent	NumberOfPlayers
1	PlayerFirst	63
2	ProSport	62
3	None	62
4	SoccerLi...	62
5	SA Elite ...	51

19. Calculate average height and weight by player position.

117 ----19. Calculate average height and weight by player position.
 118 `SELECT`
 119 Position,
 120 `AVG`(Height_cm) `AS` Average_Height,
 121 `AVG` (Weight_kg) `AS` AverageWeight,
 122 `COUNT`(*) `AS` NumberOfPlayers
 123 `FROM` [LIZA].[dbo].[ketro_sa_soccer_dataset_advanced]
 124 `GROUP BY` POSITION
 125 `ORDER BY` Position;

177 % No issues found

	Position	Average_Height	AverageWeight	NumberOfPlayers
1	Defender	182	78	70
2	Forward	179	78	83
3	Goalke...	179	78	68
4	Midfield...	179	76	79

20. Identify players with the highest combined goals and assists.

```
126      ----20. Identify players with the highest combined goals and assists.
127
128      SELECT top 5 player_name,
129                  goals,
130                  assists,
131                  (goals + assists) AS total_contributions
132
133      FROM [LIZA].[dbo].[ketrosoccerdataset_advanced]
134      ORDER BY total_contributions DESC;
```

	player_name	goals	assists	total_contributions
1	Vusi Molefe	99	77	9977
2	Gugu Hlongwane	98	38	9838
3	Mandla Mabena	98	37	9837
4	Thabo Ndlovu	98	28	9828
5	Thabo Sithole	98	2	982