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SQL PROJECTS ON SOCCER DATABASES

(WITH SOLUTIONS)

- WORLD CUPS
- EUROS
- UEFA CHAMPIONS LEAGUE
- ENGLISH PREMIER LEAGUE
- AND MORE...



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SQL PROJECTS ON SOCCER DATABASES

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About the Author

Dr. Eyo Eyo (PhD) is a University Lecturer and accomplished researcher in the fields of machine learning, data analysis, and engineering.

Eyo holds a Doctor of Philosophy (PhD) degree, which stands as a testament to his dedication to advancing knowledge in data science and engineering. His academic journey has been marked by a relentless pursuit of excellence, resulting in numerous scholarly achievements and contributions that have enriched his discipline.

Eyo's commitment to education goes beyond the classroom, as he continually seeks innovative ways to engage students and foster a deeper understanding of complex subjects.

In the realm of research, Eyo has made significant strides. His work in machine learning and data analysis has led to groundbreaking insights and practical applications, contributing to the advancement of knowledge through numerous published works.

As you delve into the pages of Eyo's book, "SQL Projects on Soccer Databases", you will discover the depth of his expertise and the invaluable insights he brings to the world of Structured Query Language and data analysis in general.

Important information

Welcome to " **SQL Projects on Soccer Databases.**" This book is designed to be your comprehensive guide to mastering the art of SQL using practical business scenarios. Whether you're a beginner looking to build a strong foundation or an experienced practitioner aiming to sharpen your skills.

SQL (Structured Query Language) is the backbone of managing and manipulating data in modern databases, making it an essential skill for anyone working with data-driven applications.

This book covers the commands used in Data Query language (DQL) in most parts. Other categories of SQL commands namely, Data Manipulation Language (DML), Data Definition Language (DDL) and Data Control Language (DCL) will be covered in a separate book.

NOTE: The commands employed in the "sample" solutions primarily align with SQL Server conventions, although suggestions are provided on how the syntax might be adapted to suit other frequently used SQL platforms such as MySQL, Oracle, PostgreSQL, etc.

Database used in this book.

Various databases have been utilised in this book covering diverse areas of footballing tournament namely the Euros, WorldCups, the English Premier League (EPL) and the UEFA Champions League. Access to these databases can be acquired from this link.

SQL Server installation and database restoration

In the Appendix, you'll find comprehensive instructions for installing SQL Server 2019 on Windows 10, as well as the step-by-step process on how to restore a database using the Microsoft AdventureWorks database as an example.

Who This Book Is For

This "**SQL Projects on Soccer Databases**" assumes some fundamental knowledge of SQL at the least. Nevertheless, it is intended for a wide audience, including:

- **SQL Beginners:** If you're new to SQL, don't worry. We'll start from the basics and gradually progress to more advanced topics.
- **Students and Educators:** Whether you're a student studying database management or an educator looking for resources to teach SQL, this book provides a rich set of exercises that can be used for learning or teaching purposes.
- **Database Professionals:** Experienced database administrators, analysts, and developers can benefit from this book by using it as a reference and for honing their SQL skills with challenging exercises.

Feedback

We value your feedback and suggestions. If you have any comments, questions, or ideas for improvement, please don't hesitate to reach out on any of the following platforms:

- Twitter: <https://twitter.com/Eyowhite3>

- Website: <https://eyowhite.com/contact/>

Your input will help us enhance future editions of this book.

Thank you for choosing "SQL Projects on Soccer Databases" We hope this book serves as a valuable resource in your journey to become a proficient SQL practitioner.

Happy querying!

[Eyo Eyo]

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EURO 2016

(SOCCER_DB Database)

1. Business scenario Q1

Stadium Analysis

As a sports event organiser planning the next major soccer tournament, you're benchmarking against the EURO cup 2016 to gauge logistical scale and preparations.

How many unique stadiums were used in the EURO cup 2016?

2. Business scenario Q2

Targeted Sports Marketing

As a sports marketing consultant, a top sports brand seeks your expertise for a campaign targeting countries from the EURO cup 2016 to promote a new soccer merchandise line.

How many unique countries participated in the EURO cup 2016?

3. Business scenario Q3

Analysis of On-Time Thrills: Goals Scored within 90 Minutes

As a sports analyst for a broadcasting company, you're sourcing data for a feature on the EURO cup 2016's thrilling goals scored during regular playtime.

How many goals were scored within the standard 90-minute play during the EURO cup 2016?

4. Business scenario Q4

Decisive Outcomes Analysis for Promotional Campaigns

As a data analyst for a sports betting firm, you're extracting insights for promotional campaigns, focusing on matches with definitive outcomes to predict high engagement.

How many matches from the EURO cup 2016 had a decisive winner?

5. Business scenario Q5

Clear Winners and Match Views

As a strategist for a sports streaming platform, you're optimising the content library, noting that match highlights with clear winners garner more views.

From the EURO cup 2016, how many matches ended in a draw?

6. Business scenario Q6

EURO 2016 Kick-off Date

Imagine you are a project manager at a digital marketing agency. A major sportswear brand approaches your agency to create a retrospective digital campaign celebrating the 10th anniversary of the EURO cup 2016. To anchor the campaign's timeline and build anticipation, the brand wants to highlight key moments starting from the very first day of the tournament.

Based on historical records, on which date did the EURO cup 2016 officially kick off? This information will serve as the starting point for the digital campaign's timeline and narrative.

7. Business scenario Q7

Analysis of Own Goals

Imagine you are a sports journalist preparing a feature article on unexpected moments in soccer history. Own goals, being rare and often game-changing, are of particular interest. As part of this feature, you're focusing on major tournaments like the EURO cup 2016 to highlight the frequency and impact of such moments.

Based on the records from the EURO cup 2016, how many own goals were unintentionally scored by players into their team's net? This data will provide insights into the unpredictability of the sport and serve as a key highlight for your article.

8. Business scenario Q8

Decisive Group Stage Matches

As a sports data analyst at a TV network, you're assessing high-stakes group stage matches to optimize future broadcasting schedules.

From the EURO cup 2016, how many group stage matches had a decisive winner?

9. Business scenario Q9

Analysis of Penalty Shootouts

As a content director at a sports platform, you're curating a compilation of gripping penalty shootouts from the EURO cup 2016. How many matches in the EURO cup 2016 concluded in a penalty shootout?

10. Business scenario Q10

Analysis of Round of 16 Penalties

As a sports commentator, you're researching intense moments from the EURO cup 2016's Round of 16 stage, particularly penalty shootouts. How many Round of 16 matches in the EURO cup 2016 were decided by penalties?

11. Business scenario Q11

Analysis of Regular Play Goals

Collaborating with a mobile app developer creating a soccer trivia game, you're sourcing data on goals scored during regular play in the EURO cup 2016. How many goals were scored within the standard 90-minute play for each match in the EURO cup 2016?

12. Business scenario Q12

Matches Without First-Half Stoppage

Assisting a soccer coach, you're analysing matches from the EURO cup 2016 where the first half had no stoppage time. Which matches had no first-half stoppage time, and how many goals were scored during their regular play?

13. Business scenario Q13

Goalless Group Stage Matches

For a startup focusing on soccer betting, you're extracting data on goalless draws during group stages from the EURO cup 2016. How many groups stage matches in the EURO cup 2016 ended in a goalless draw?

14. Business scenario Q14

Narrow Victories

Crafting a "Narrow Victories" series, you're identifying matches from the EURO cup 2016 where a team won by just one goal, excluding penalty shootouts. How many matches ended with a one-goal margin, excluding those decided by penalties?

15. Business scenario Q15

Analysis of Total Substitutions

Analysing player fatigue for a national team's EURO cup preparation, you're examining substitution data from the EURO cup 2016. How many player substitutions occurred throughout the EURO cup 2016?

16. Business scenario Q16

Regular Play Substitutions

For a football club prepping for the EURO cup, you're analysing substitution patterns during regular playtime from the EURO cup 2016. How many player substitutions occurred within the standard 90-minute play in the EURO cup 2016?

17. Business scenario Q17

Stoppage Time Substitutions

Studying player management during high-pressure moments, you're extracting data on substitutions made during stoppage time from the EURO cup 2016. How many player substitutions took place during stoppage time in the EURO cup 2016?

18. Business scenario Q18

Analysing First-Half Substitution Patterns

For a national football team's strategy formulation, you're analysing first-half substitution patterns from the EURO cup 2016. How many player substitutions were made during the first half of matches in the EURO cup 2016?

19. Business scenario Q19

Goalless Draws

Supporting a media agency's documentary, you're highlighting defensive skills by analysing goalless draws in the EURO cup 2016. How many matches in the EURO cup 2016 ended in a goalless draw?

20. Business scenario Q20

Extra Time Substitutions

Studying player fatigue during extended playtimes for the next EURO cup, you're examining extra time substitutions from the EURO cup 2016. How many player substitutions occurred during extra time in the EURO cup 2016?

21. Business scenario Q21

Substitution Breakdown by Stage

Aiding a football team's EURO cup preparation, you're breaking down when substitutions occurred during the EURO cup 2016. Provide a breakdown of player substitutions by play stage from the EURO cup 2016.

22. Business scenario Q22

Spot-kick Shots

Preparing goalkeepers for potential penalty shootouts, you're analysing penalty shots taken during the EURO cup 2016. How many shots were taken during penalty shootouts in the EURO cup 2016?

23. Business scenario Q23

Successful Penalty Shots

Training goalkeepers, you're studying the success rate of penalty takers from the EURO cup 2016. How many penalty shots during shootouts resulted in goals in the EURO cup 2016?

24. Business scenario Q24

Missed or Saved Penalty Shots

For a football club's EURO cup preparation, you're extracting data on missed or saved penalty shots from the EURO cup 2016. How many penalty shots were either missed or saved by the goalkeeper during the EURO cup 2016 shootouts?

25. Business scenario Q25

Players in Penalty Shootouts

To inform potential shootout strategies, you're reviewing which players took penalty shots during the EURO cup 2016. List players and their respective countries, showcasing the number of shots each took during the EURO cup 2016 shootouts.

26. Business scenario Q26

Analysing Team-wise Penalty Frequencies

As the tactical analyst for a football federation, you are reviewing past tournaments to strategize for upcoming matches. Understanding the penalty-taking frequency of different teams from the EURO cup 2016 can provide insights into their potential strategies and key players. From the EURO cup 2016 data, how many penalty shots did each team take during shootouts?

27. Business scenario Q27

Bookings by Half

You are a team manager preparing for an upcoming football tournament. In order to strategize effectively and anticipate potential game disruptions, you want to understand the pattern of bookings from a recent tournament, the EURO cup 2016.

From the EURO cup 2016 data, how many bookings occurred in each half of play?

28. Business scenario Q28

Stoppage Time Bookings

As a football analyst preparing for an upcoming match, you want to understand the frequency of bookings during critical moments, particularly during stoppage time, based on data from the EURO cup 2016.

How many bookings occurred during stoppage time in the EURO cup 2016?

29. Business scenario Q29

Extra Time Bookings

As a football coach preparing for an extended play scenario in a knockout match, you're reviewing historical data from the EURO cup 2016 to understand player discipline during high-pressure moments.

How many bookings took place during extra time in the EURO cup 2016?

30. Business scenario Q30

Team Performance Analysis

As a sports journalist, you're preparing an article on teams with the most goals in the EURO cup 2016. This data will help you highlight the top-performing teams in terms of goal-scoring capability. Retrieve the top 5 teams with the most goals scored during the EURO cup 2016.

31. Business scenario Q31

Player Discipline Analysis

As a club scout, you're interested in signing new players. However, you want to ensure you're recruiting disciplined players. You decide to analyse the players with the most bookings

(yellow/red cards) during the EURO cup 2016. List players with more than one booking during the EURO cup 2016.

32.Business scenario Q32

Coach Performance Analysis

As the director of a football academy, you're planning to invite successful coaches from the EURO cup 2016 for a seminar. You're interested in coaches whose teams scored the most goals. Identify coaches whose teams were among the top 5 in terms of goals scored during the EURO cup 2016.

33.Business scenario Q33

Analysing Venue Utilisation

As an event organizer, you're benchmarking venue utilization for a future event. You decide to check which venues hosted the most matches during the EURO cup 2016. List soccer venues by the number of matches they hosted during the EURO cup 2016.

34. Business scenario Q34

Analysing Average Substitution Patterns

As a sports analyst, you're studying player fatigue and its impact on match performance. You decide to analyse the average number of substitutions made by teams during the second half of the matches in the EURO cup 2016. Calculate the average number of substitutions made by teams during the second half of matches in the EURO cup 2016.

35.Business scenario Q35

Penalty Analysis

As a goalkeeping coach, you're preparing your goalkeepers for potential penalty shootouts. You decide to study the teams that had the most successful penalties during the EURO cup 2016. Identify the top 3 teams with the highest successful penalty conversion rates during the EURO cup 2016.

36. Business scenario Q36

Referee Analysis

As a referee instructor, you're preparing a training module based on the performance of referees in the EURO cup 2016. You're interested in referees who officiated the most number of matches. List referees based on the number of matches they officiated during the EURO cup 2016.

37. Business scenario Q37

Top Goal Scorers

You are a sports journalist preparing an article on the top goal scorers of the EURO cup 2016. To ensure your article is accurate and data-driven, you decide to consult the database to identify the top 5 players who scored the most goals during the tournament.

38. Business scenario Q38

Teams with Most Bookings

As a team manager, you are reviewing the discipline of various teams in the EURO cup 2016. You want to identify the top 3 teams that received the most bookings to understand the aggressive nature of their gameplay.

39. Business scenario Q39

Players substituted the Most

You are a soccer coach analysing player fitness and endurance. You decide to look into the players who were frequently substituted during matches in EURO cup 2016 to understand their stamina levels and game participation.

40. Business scenario Q40

Referees who Officiated Most Matches

As part of a referee performance review, the soccer federation wants to know which referees were assigned the most matches during EURO cup 2016. This data will help in understanding their experience and performance during high stakes matches.

41. Business scenario Q41

Teams with Highest Average Player Age

As an analyst for a sports agency, you're trying to identify veteran teams in the EURO cup 2016. Teams with a higher average age might have more experienced players. You decide to compute the average age of players for each team.

42. Business scenario Q42

Stadiums with Highest Attendance

You are a city planner, and you're evaluating the success of different venues during the EURO cup 2016. You decide to find out which stadiums had the highest cumulative attendance during the tournament.

43. Business scenario Q43

Matches with Highest Number of Bookings

As a researcher analysing the intensity of matches in the EURO cup 2016, you're interested in identifying matches that had the highest number of bookings (both yellow and red cards) as they might have been particularly contentious or aggressive.

44. Business scenario Q44

Players who Played the Most Minutes

You are an analyst for a sports fitness company, and you're trying to understand which players had the most on-field time during the EURO cup 2016, as they might need specialised recovery regimens.

45. Business scenario Q45

Top Venues by Number of Matches Hosted

As part of a tourism study, you're evaluating which cities might have received the most visitors due to their hosting of EURO cup 2016 matches. You decide to rank venues by the number of matches they hosted.

46. Business scenario Q46

Top Scorers by Match Phase

As an analyst for a sports magazine, you're writing a feature on players who shine at different phases of a match. You aim to find the top goal scorers during the regular time, extra time, and penalty shootouts of the EURO cup 2016.

47. Business scenario Q47

Most Utilised Substitutes

You are a talent scout, and you're interested in players who were frequently used as substitutes (either brought in or taken out) during the EURO cup 2016, indicating their tactical importance.

48. Business scenario Q48

Player Performance by Bookings and Goals

As a sports journalist, you're preparing a feature on key players who have both scored goals and received bookings (yellow or red cards) during the EURO cup 2016. These players are likely influential on the pitch but may also have aggressive or risk-taking tendencies.

49. Business scenario Q49

Matches with the Most Bookings

As a soccer historian, you're studying the most heated and contentious matches in EURO cup 2016, gauged by the number of bookings (yellow or red cards) received during the match.

50. Business scenario Q50

Venue with the Highest Average Goals per Match

As a sports marketer planning for the next big tournament, you're keen to understand which venues historically witnessed the most action in terms of goals. Venues with high average goals per match might be more lucrative in terms of ticket sales and broadcasting rights due to the expected excitement. Using data from EURO cup 2016, you want to identify the venue where, on average, the most goals were scored.

English Premier League (EPL)

(PremierLeague Database)

51. Business scenario Q51

Top Scoring Team Analysis

In the recently concluded football season, sponsors and advertisers want to collaborate with the top-performing teams to maximise their brand visibility. Which team has showcased superior offensive capabilities by scoring the most goals throughout the season?

52. Business scenario Q52

Discipline Review

Football associations and management teams are always on the lookout to maintain discipline and sportsmanship in the game. As part of the season review, which team needs the most attention in terms of discipline, having received the most cards (both yellow and red) throughout the season?

53. Business scenario Q53

Defensive Prowess Analysis

As the football season wraps up, a sports magazine is preparing a feature on the art of defence in football. They wish to spotlight teams that have consistently thwarted opponents' attempts on goal. Which team has faced the most shots on target but conceded the fewest goals?

To address this scenario, calculate a "Defensive Efficiency" score as the ratio of goals conceded to shots on target faced. The team with the lowest ratio (indicating they conceded

fewer goals despite facing many shots) will be considered the best in terms of defensive prowess.

54. Business scenario Q54

Underdog Triumphs

A prominent sports channel is creating a documentary series titled 'Moments of Triumph' focusing on underdog victories. They are specifically interested in matches where teams have managed to win despite facing a significantly higher number of shots than their opponents. Which matches best exemplify this underdog spirit?" For this scenario, find matches where the winning team faced at least 10 more shots than they took but still emerged victorious.

55. Business scenario Q55

The Corner Game

A sports analytics firm is conducting a study on the correlation between corners taken and goals scored. They believe that teams that win more corners tend to dominate possession and create more scoring opportunities. Which team has won the most corners throughout the season, and how does this relate to their goal tally?

56. Business scenario Q56

First Half Dominance

Football pundits often argue that teams which start strong in the first half tend to dictate the pace of the match. The league's marketing team wants to highlight matches where teams

made comebacks despite being down in the first half. Which matches had teams trailing by at least 2 goals at halftime but ended in a draw or win for them?

57.Business scenario Q57

The Fair Play Teams

The Football Association wants to promote fair play and sportsmanship in the league. As part of their annual review, they wish to identify teams that have committed the fewest fouls throughout the season. Which teams have demonstrated exceptional sportsmanship by committing the least number of fouls?

58.Business scenario Q58

The Resilient Defenders

Football analysts often discuss the resilience of a team's defence under pressure. A metric of interest is how teams perform when they're constantly under the threat of corners, which are potential goal-scoring opportunities. Which teams have faced the most corners but conceded the fewest goals, showcasing their defensive resilience?" Compute a "Defensive Resilience Score" as the ratio of goals conceded to corners faced. A lower score indicates a team that's more resilient under defensive pressure.

59. Business scenario Q59

The Thriller Matches

Football enthusiasts often remember matches not just for their outcomes but for the sheer entertainment value. Broadcasters are looking to rerun matches from the season that had the

most combined shots on target, as these matches often provide thrilling, edge-of-the-seat action. Which matches had the highest combined shots on target from both teams?

60. Business scenario Q60

The Clean Sheet Masters

Goalkeepers and defenders pride themselves on matches where they prevent the opposing team from scoring, also known as keeping a 'clean sheet'. Which team has kept the most clean sheets throughout the season?

61. Business scenario Q61

The Fortress Grounds

Home advantage is often a significant factor in football. Which team has the best home record, having won the most matches on their home turf?

62. Business scenario Q62

The Stalemate Stages

Draws can be as crucial as wins in a tight league race. Which teams have had the most drawn matches throughout the season?

63. Business scenario Q63

The Underdog Points

Upsets are a part of football's charm. Analysts want to know which teams have managed to secure points against the top 3 teams. Which teams have drawn or won against the top 3 teams with the most wins?

64. Business scenario Q64

Goals Galore

Goals make a football match exciting. On which matchday did the league witness the most goals?

65. Business scenario Q65

The Home Comforts

Home matches often provide teams with a comfort level. Which team has scored the most goals at their home ground?

66. Business scenario Q66

The Draw Specialists

Some teams have a knack for drawing matches. Which team has had the most draws this season?

67. Business scenario Q67

Fortress Denied

Every team aims to make their home ground a fortress. However, which team has lost the most matches at their home?

68. Business scenario Q68

Away Day Blues

Playing away from home can be challenging. Which team has struggled the most on their travels, losing the most away matches?

69. Business scenario Q69

The Early Birds

The beginning of the season can set the tone for the rest. Which team won the first match of the season?

70. Business scenario Q70

The Goalless Streak

Defensive discipline is crucial in football. Which team had the first goalless draw of the season?

71. Business scenario Q71

Tough Starters

A tough beginning can be challenging. Which team lost their first match of the season?

72. Business scenario Q72

The Dominant Display

Total control in a match often leads to one-sided scorelines. Which match had the biggest goal difference this season?

73. Business scenario Q73

The Nail-Biters

Close matches keep the fans on the edge of their seats. Which match had the smallest goal difference where both teams scored excluding 0-0.

74. Business scenario Q74

The Away Day Dominators

Winning away from home showcases a team's resilience and adaptability. Which team has the most away victories this season?

75. Business scenario Q75

The Unbreakable Defence

A strong defence is often the backbone of a successful team. Which team has conceded the fewest goals at home this season?

76. Business scenario Q76

The Big Starters

Starting a match on the front foot can set the tone for the rest of the game. Which team has scored the most first-half goals this season?

77. Business scenario Q77

The Late Bloomers

Late goals can change the outcome of a match and are often the most dramatic. Which team has scored the most goals in the second half of matches this season?

78. Business scenario Q78

The Tactical Switch

Adapting tactics during a game can lead to dramatic turnarounds. Which teams have been most successful in overturning a halftime deficit to win a match?"

Identify teams that were behind at halftime but went on to win the match.

79. Business scenario Q79

The Second-Half Surge

Second halves can be game changers. Which teams have the highest average number of goals scored in the second half throughout the season, indicating a trend of late surges in their matches?

Calculate the average second-half goals scored by each team across all matches.

80. Business scenario Q80

The Resilient Defence

While attack wins games, defence wins championships. Which teams, after conceding in the first half, have managed to not concede any further goals in the second half the most times, indicating strong defensive adjustments?

identify teams that conceded goals in the first half but prevented any further goals in the second half.

81. Business scenario Q81

The Comeback Kings

Coming back from a deficit showcases a team's spirit and determination. Which teams have managed to win or draw matches after being two or more goals down at any point during the game?

identify teams that were behind by at least two goals during the match but didn't lose.

82. Business scenario Q82

The Traveling Troubles

Playing away from home can be challenging for many teams. Which teams have the lowest win percentage in away matches this season?

83. Business scenario Q83

The Second Half Shift

Game after the break. Which teams have improved their goal difference the most in the second half compared to the first half across all matches this season?"

Calculate the goal difference for teams in both halves and then compare to see which teams improve the most after halftime.

84. Business scenario Q84

The Stalemate Specialists

Some teams are more defensively structured and often play out draws. Which teams have the highest number of drawn matches this season?

85. Business scenario Q85

The Fortress Défense

Defense plays a pivotal role in a team's success. Which teams have conceded the fewest goals at their home ground this season?

86. Business scenario Q86

The Comeback Kings 2

It's never over till it's over. Which teams have managed to win the most matches after being behind at halftime that season?

World Cup Tournaments

(WorldCup Database)

87. Business scenario Q87

World Cup Hosting Highlights

We aim to identify the country that has hosted the FIFA World Cup the most times and the cumulative goals scored during its tenures. This data offers insight into the nation's prominence in football history and the excitement of its hosted tournaments.

88. Business scenario Q88

Top Goal-Scoring Tournament

Which World Cup year had the highest number of total goals scored, and where was it hosted?

89. Business scenario Q89

Most Attended World Cup

Which World Cup year had the highest attendance, and where was it hosted?

90. Business scenario Q90

World Cup Underdogs

Which World Cup had a winner that scored the fewest goals throughout the tournament?

91. Business scenario Q91

Tightest World Cup Race

Which World Cup had the smallest difference between goals scored and goals conceded for the winning team?

92. Business scenario Q92

Surprising Finalists

Which World Cup had the finalists (Winner and Runners-Up) with the least number of goals scored leading up to the final?

93. Business scenario Q93

The Unexpected Third

Which World Cup had the third-placed team that won the most matches but scored the fewest goals?

94. Business scenario Q94

Dramatic Turnarounds

Which World Cup match had the most significant goal difference at half-time, but ended with a draw or a win for the team that was initially trailing?

95. Business scenario Q95

Referee's Busy Day

Which World Cup match had the highest number of events (like goals, red cards, yellow cards, etc.) officiated by a single referee?

96. Business scenario Q96

Rookie Nations' Debut

Which World Cup saw the highest number of countries participating for the first time?

97. Business scenario Q97

Decisive Finals

Which World Cup final had the largest goal difference between the winning team and the runners-up?

98. Business scenario Q98

Early Bird Champions

Which World Cup-winning team scored the most goals in the initial group stages?

99. Business scenario Q99

Hosts' Heartbreak

Which hosting nation reached the final but ended up as runners-up?

100. Business scenario Q100

Consistent Contenders

Which country has consistently finished in the top 4 (Winner, Runners-Up, Third, or Fourth place) the most times?

101. Business scenario Q101

Low Scoring Winners

Which World Cup-winning team scored the fewest goals throughout the entire tournament?

102. Business scenario Q102

Goalkeeper's Nightmare

Which stadium has witnessed the most goals in a single World Cup edition?

103. Business scenario Q103

Decade of Dominance

Which country won the most World Cup titles in a single decade?

104. Business scenario Q104

Closest Contests

Which World Cup edition had the highest number of matches decided by a one-goal difference or ended in a draw?

105. Business scenario Q105

The Unyielding Fortress

Which World Cup-winning team conceded the fewest goals throughout the entire tournament?

106. Business scenario Q106

Giant Slayers

Which country, not having won a World Cup before, defeated the most number of previous World Cup-winning countries in a single tournament edition?

107. Business scenario Q107

Comeback Kids

Which team had the highest number of matches where they were trailing at half-time but ended up winning the match in a single World Cup edition?

108. Business scenario Q108

Late Bloomers

Which team scored the most goals in the final 15 minutes of their matches in a single World Cup edition?

109. Business scenario Q109

Top Scorer of 2018

Who was the top goal scorer in the 2018 World Cup?

110. Business scenario Q110

Host Performance

How did the host country perform in terms of matches won, drawn, and lost during the latest World Cup edition?

111. Business scenario Q111

Stalemate Streak

Which team had the highest number of goalless draws (0-0) throughout all World Cup editions?

112. Business scenario Q112

First Time Charm

Which team, on their World Cup debut, managed to score the most goals in a single match?

113. Business scenario Q113

Crowd Pullers

Which World Cup match had the highest attendance?

114. Business scenario Q114

Rookie Sensation

Which team made its debut in the latest World Cup edition?

115. Business scenario Q115

Swift Revenge

Which team lost a match but managed to defeat the same opponent in their very next encounter in the World Cup?

116. Business scenario Q116

Drought Breakers

Which team, after missing at least three consecutive World Cup editions, made a comeback in the latest World Cup?

UEFA CHAMPIONS LEAGUE (2016-2022)

(UEFA Database)

117. Business scenario Q117

Top Team by Home Victories

A sports journalist wants to identify which team had the most home victories during the 2021-2022 season.

118. Business scenario Q118

Largest Stadium by Capacity

The event manager for a major music concert wants to know which stadium has the largest seating capacity to potentially host a big event.

119. Business scenario Q119

Most Games Managed

The board of directors for a football association wants to recognise the manager who has managed the most games during seasons under consideration.

120. Business scenario Q120

Youngest Manager in the League

A sports journalist is writing an article on the influence of youth in football management and wants to identify the youngest manager during the 2021-2022 season.

121. Business scenario Q121

Team with Most Away Wins

A football analyst is examining the performance of teams in away matches and wants to determine which team secured the most away victories during the 2021-2022 season.

122. Business scenario Q122

Stadium with Most Matches

The UEFA committee is analysing stadium usage and wants to know which stadium hosted the most matches during the 2021-2022 season.

123. Business scenario Q122

Stadiums by Country

A tourism company is creating travel packages for football enthusiasts. They want a list of countries and the number of UEFA-associated stadiums each country has.

124. Business scenario Q124

Most Experienced Players

A sports magazine is doing a feature on veteran players and wants to identify the 3 oldest players currently playing in the UEFA league.

125. Business scenario Q125

Team with Widest Goal Margin Victory

A football historian is studying dominant performances and wants to identify the team that has won a match with the widest goal margin across all seasons.

126. Business scenario Q126

Busiest Stadium

A brand is considering stadium sponsorships and wants to know which stadium has hosted the most matches across all seasons, assuming that a stadium with more matches would have more visibility.

127. Business scenario Q127

Most Travelled Team

A sports logistics company is doing a study on team travels and wants to identify the team that has played the most away matches across all seasons.

128. Business scenario Q128

Ranking some of the Most Popular Home Venues

A broadcasting company wants to set up permanent cameras and equipment in the stadium that has seen the highest average attendance for home matches across all seasons.

129. Business scenario Q129

Ranking teams with Most Diverse Nationalities

A football academy is studying diversity in teams and wants to identify which team has players from the most diverse set of nationalities.

130. Business scenario Q130

Teams with Most Home Draws

A sports statistician wants to identify which team had the most draws in their home matches across all seasons.

131. Business scenario Q131

Top Scoring Team Without Home Advantage

A football analyst wants to determine the team that has scored the most goals, but only in away matches, over the last three seasons.

132. Business scenario Q132

Most Consistent Home Team

A sports analyst wants to determine which team has the smallest difference between their highest and lowest home game attendance across all seasons.

133. Business scenario Q133

Best Defensive Away Team

A football commentator wants to highlight teams that have strong defensive tactics while playing away. They want to identify the team that conceded the fewest goals in away matches across all seasons.

134. Business scenario Q134

Young Managers in the League

A sports journalism network is planning a feature on young football managers making a mark in the UEFA league. They want to identify all managers who are currently under the age of 40.

135. Business scenario Q135

Most Frequent Match Venue in the Latest Season

A broadcaster wants to identify which stadium was used most frequently in the latest season for logistical planning.

136. Business scenario Q136

Top Home Team of the Latest Season

A sports blog wants to feature the team that scored the most goals in their home matches in the most recent season.

137. Business scenario Q137

Frequent Fixture

A sports historian wants to identify which two teams have faced each other the most times across all seasons. This could highlight a potential rivalry or frequent pairing in the league.

138. Business scenario Q138

Best Away Win

A sports statistics website is showcasing extraordinary game results. They want to identify the away team that had the largest goal difference in their favour in a single match across all seasons.

139. Business scenario Q139

Home Fortress

A sports broadcaster wants to highlight teams that are exceptionally strong on their home ground. They want to identify the team that has the highest average goals scored in home matches over all seasons.

140. Business scenario Q140

Longest Serving Team

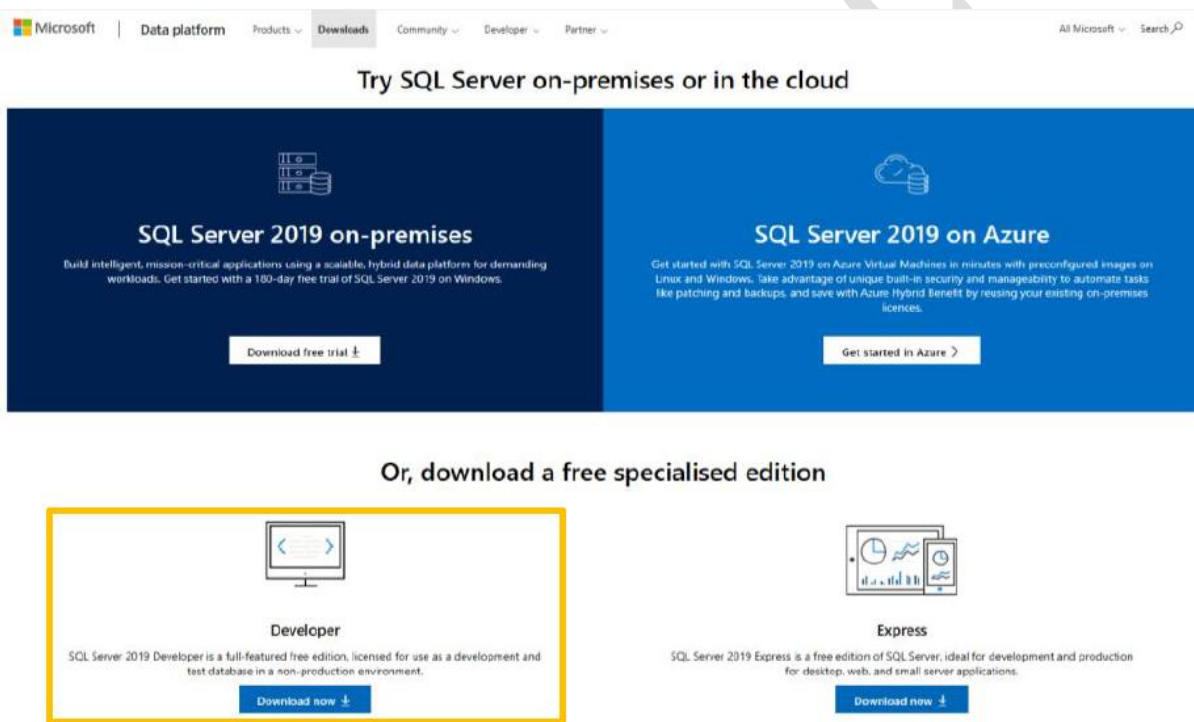
A football enthusiast wants to know which team has been in the UEFA league for the longest duration based on the earliest recorded match.

Appendix

SQL Server Installation Guide

Phase 1: Installing SQL Server 2019 on a Windows 10 operating system.

1. To set up SQL Server 2019, obtain the necessary files by clicking the provided link:
<https://www.microsoft.com/en-gb/sql-server/sql-server-downloads>
2. Select "Download Now" for the developer edition.



3. After the file has finished downloading, double-click on it to initiate the installation.
4. In the window that appears, choose the "Basic" installation type.

Developer Edition

Select an installation type:

Basic

Select Basic installation type to install the SQL Server Database Engine feature with default configuration.

Custom

Select Custom installation type to step through the SQL Server installation wizard and choose what you want to install. This installation type is detailed and takes longer than running the Basic install.

Download Media

Download SQL Server setup files now and install them later on a machine of your choice.

SQL Server transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data processing and privacy controls, and to turn off the collection of this information after installation, see the [documentation](#)

5. Press "Next," agree to the Terms and Conditions, and then click "Install."
6. After the installation is finished, you will receive a link to download SQL Server Management Studio. If you don't spot the link, please click on this provided link:
<https://aka.ms/ssmsfullsetup>
7. Download SQL Server Management Studio and proceed to install it.

Phase 2: AdventureWorks (2019 or 2022) Database

1. Upon the successful installation of SQL Server 2019, you'll require a database for practice.
Please follow the link below to download the AdventureWorks2019 or 2022 Database:
<https://github.com/Microsoft/sql-server-samples/releases/tag/adventureworks>
2. On the webpage, locate and select the highlighted option to download the AdventureWorks2019.bak file or AdventureWorks2022.bak file.

AdventureWorks (OLTP) full database backups

[AdventureWorks2022.bak](#)

[AdventureWorks2019.bak](#)

[AdventureWorks2017.bak](#)

[AdventureWorks2016.bak](#)

[AdventureWorks2016_EXT.bak](#)

Download size is 883 MB. This is an extended version of AdventureWorks, Server 2016 sample scripts on this database.

[AdventureWorks2014.bak](#)

[AdventureWorks2012.bak](#)

3. Navigate to the folder where the AdventureWorks2012.bak file has been downloaded and proceed to make a copy of the file.
4. Paste the file into the Backup folder within your freshly installed SQL system, which should be situated in a location resembling the one described below:

C:\Program Files\Microsoft SQL Server\MSSQL11.SQLSERVERBI\MSSQL\Backup

5. Next, open SQL Server Management Studio from either the Programs Menu or the Applications Desktop (Windows 8).
6. Now click on the following link to restore the database on SQL Server:
<https://learn.microsoft.com/en-us/sql/samples/adventureworks-install-configure?view=sql-server-ver16&tabs=ssms>

Phase 3: AdventureWorks Data Warehouse Version (2019 or 2022) Database

1. The following link allows you to download the AdventureWorksDW2019.bak or AdventureWorksDW2022.bak versions: <https://learn.microsoft.com/en-us/sql/samples/adventureworks-install-configure?view=sql-server-ver16&tabs=ssms>
2. After downloading the file, following similar steps as in **Phase 2** to restore the database.

OLTP	Data Warehouse	Lightweight
AdventureWorks2022.bak ↗	AdventureWorksDW2022.bak ↗	AdventureWorksLT2022.bak ↗
AdventureWorks2019.bak ↗	AdventureWorksDW2019.bak ↗	AdventureWorksLT2019.bak ↗
AdventureWorks2017.bak ↗	AdventureWorksDW2017.bak ↗	AdventureWorksLT2017.bak ↗
AdventureWorks2016.bak ↗	AdventureWorksDW2016.bak ↗	AdventureWorksLT2016.bak ↗
AdventureWorks2016_EXT.bak ↗	AdventureWorksDW2016_EXT.bak ↗	N/A
AdventureWorks2014.bak ↗	AdventureWorksDW2014.bak ↗	AdventureWorksLT2014.bak ↗
AdventureWorks2012.bak ↗	AdventureWorksDW2012.bak ↗	AdventureWorksLT2012.bak ↗
AdventureWorks2008R2.bak ↗	AdventureWorksDW2008R2.bak ↗	N/A

Phase 4: WideWorldImporters Database:

1. The link to download the WideWorldImporters database is: <https://github.com/Microsoft/sql-server-samples/releases/tag/wide-world-importers-v1.0>
2. Ensure to following the steps as outlined in Phase 2 to restore the database.

▼ Assets 17

📁 Daily.ETL.ispac	61.2 KB	Aug 12, 2016
📁 sample-scripts.zip	23.1 KB	Jun 8, 2016
📁 WideWorldImporters-Full.bacpac	58.5 MB	Oct 7, 2022
📁 WideWorldImporters-Full.bak	121 MB	Oct 7, 2022
📁 WideWorldImporters-Full_old.bacpac	59.1 MB	Nov 16, 2016
📁 WideWorldImporters-Full_old.bak	121 MB	Aug 13, 2016
📁 WideWorldImporters-Standard.bacpac	58.2 MB	Oct 7, 2022
📁 WideWorldImporters-Standard.bak	121 MB	Oct 7, 2022
📁 WideWorldImporters-Standard_old.bacpac	58.5 MB	Jun 8, 2016
📁 WideWorldImporters-Standard_old.bak	121 MB	Aug 15, 2016
📁 WideWorldImportersDW-Full.bacpac	19.6 MB	Nov 16, 2016
📁 WideWorldImportersDW-Full.bak	47.7 MB	Jun 8, 2016
📁 WideWorldImportersDW-Standard.bacpac	21.4 MB	Jun 8, 2016
📁 WideWorldImportersDW-Standard.bak	51.4 MB	Jun 8, 2016

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