The University of Texas Permian Basin. COSC-6315.701, Distributed Database Systems.

INTRODUCTION:

The Java program connects to a MongoDB database to perform various queries on World Cup 2014 data. It retrieves information such as countries that have won World Cups, details about stadiums, players, matches, and more. Leveraging the MongoDB Java driver, the program showcases the integration of Java applications with MongoDB. The documentation provides a detailed overview of the program's design, implementation, and functionality.

PROGRAM OVERVIEW:

MongoDB Connection:

- The program establishes a connection to the MongoDB server running on "localhost" and port "27017".
- It connects to the specific database named "WorldCup2014" and initializes collections for various entities like countries, match results, players, etc.

Queries and Output

- The program executes a series of MongoDB queries to retrieve specific information from the database.
- Each query is designed to answer a particular question related to World Cup data, such as winning countries, stadiums with specific criteria, player information, etc.

Query Methods:

- The program defines several private methods, each corresponding to a specific type of query.
- Query methods use MongoDB's Java driver to interact with the database, retrieve documents, and process the results.

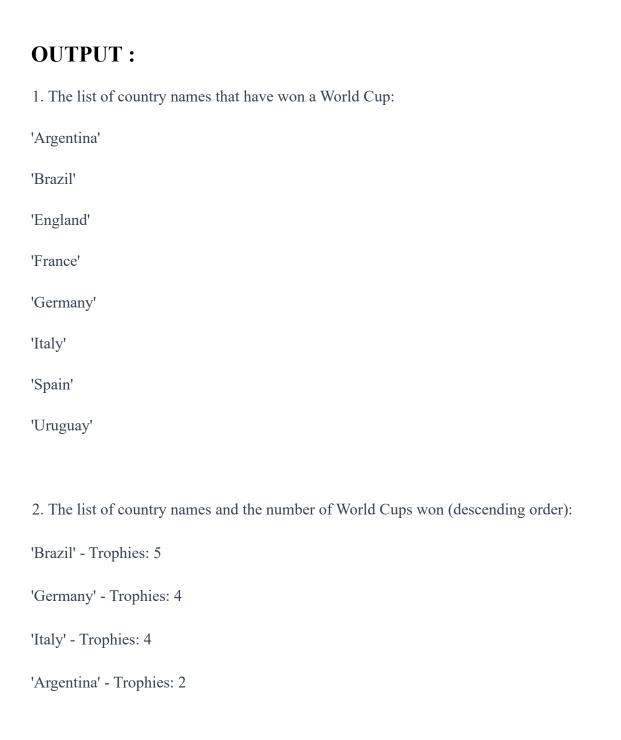
Data Processing:

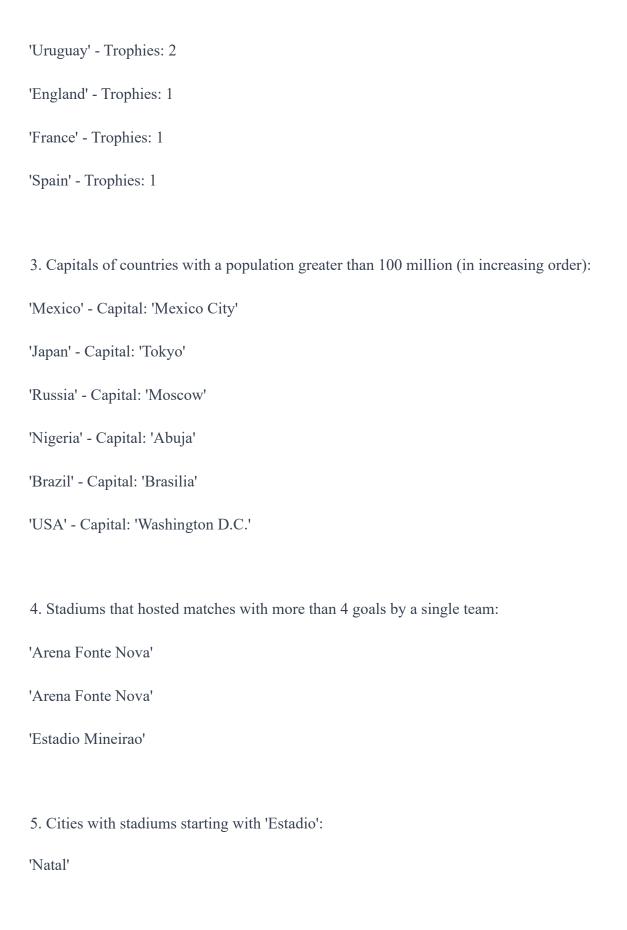
- The program processes the retrieved data to format it in a readable manner.
- For example, the program formats and prints lists of countries, trophies, cities, stadiums, players, and match details.

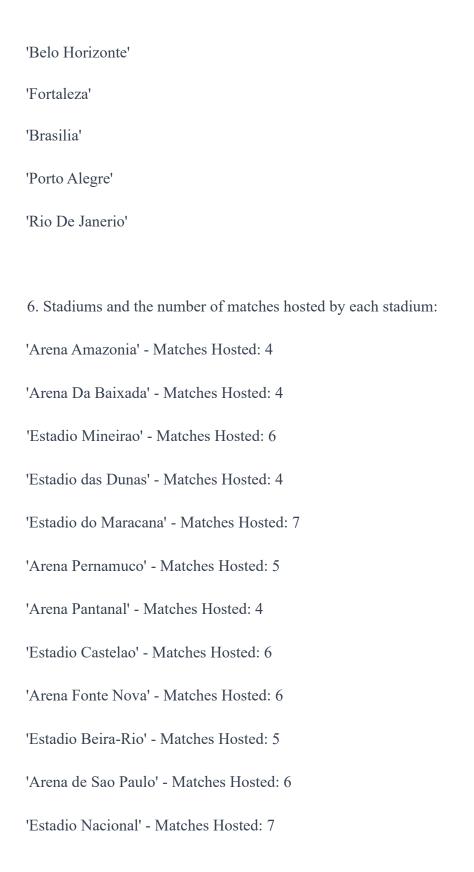
File Output:

•	The program s	saves the out	put of each o	query to a text	file named	"output.txt."
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• A file-writing method is implemented to append results to the file with appropriate statements.







7. Players with heights greater than 198 cms:

'FRASER' 'FORSTER' - Date of Birth: '1988-03-17'

'LEE' 'BUMYOUNG' - Date of Birth: '1989-04-02'

8. Matches played between 20-Jun-2014 and 24-Jun-2014:

Stadium: 'Arena Pernamuco', Team1: 'Italy', Team2: 'Costa Rica', Date: '2014-06-20'

Stadium: 'Arena Fonte Nova', Team1: 'Switzerland', Team2: 'France', Date: '2014-06-20'

Stadium: 'Arena Da Baixada', Team1: 'Honduras', Team2: 'Ecuador', Date: '2014-06-20'

Stadium: 'Estadio Mineirao', Team1: 'Argentina', Team2: 'Iran', Date: '2014-06-21'

Stadium: 'Arena Pantanal', Team1: 'Nigeria', Team2: 'Bosnia & Herzegovina', Date: '2014-06-21'

Stadium: 'Estadio Castelao', Team1: 'Germany', Team2: 'Ghana', Date: '2014-06-21'

Stadium: 'Arena Amazonia', Team1: 'USA', Team2: 'Portugal', Date: '2014-06-22'

Stadium: 'Estadio do Maracana', Team1: 'Belgium', Team2: 'Russia', Date: '2014-06-22'

Stadium: 'Estadio Beira-Rio', Team1: 'South Korea', Team2: 'Algeria', Date: '2014-06-22'

Stadium: 'Estadio Nacional', Team1: 'Cameroon', Team2: 'Brazil', Date: '2014-06-23'

Stadium: 'Arena Pernamuco', Team1: 'Croatia', Team2: 'Mexico', Date: '2014-06-23'

Stadium: 'Arena Da Baixada', Team1: 'Australia', Team2: 'Spain', Date: '2014-06-23'

Stadium: 'Arena de Sao Paulo', Team1: 'Netherlands', Team2: 'Chile', Date: '2014-06-23'

Stadium: 'Arena Pantanal', Team1: 'Japan', Team2: 'Columbia', Date: '2014-06-24'

Stadium: 'Estadio Castelao', Team1: 'Greece', Team2: 'Ivory Coast', Date: '2014-06-24'

Stadium: 'Estadio das Dunas', Team1: 'Italy', Team2: 'Uruguay', Date: '2014-06-24'

Stadium: 'Estadio Mineirao', Team1: 'Costa Rica', Team2: 'England', Date: '2014-06-24'

9. Captain Info with more than 2 Yellow cards or 1 Red card and their goals:

Fname: 'THIAGO', Lname: 'SILVA', Position: 'Defender', Goals: 1