DATABASE INTERMEDIATE

ICE TASK 3

Draw an Entity Relationship Diagram (ERD) using Unified Modelling Language (UML) notation according to the below business rules. Your design should be at the logical level – include primary and foreign key fields, and remember to remove any many-to-many relationships.

• Each owner owns one or more cats, and every cat has exactly one owner.

• The name and surname of each owner must be stored in the database.

• The name of each cat must be stored in the database.

• Each cat belongs to one specific breed, and many cats can belong to the same breed.

• The description of each breed must be stored in the database.

• A cat can enter many competitions, and many cats can enter the same competition.

• The description of each competition must be stored in the database.

**Consider your ERD answer to answer the questions that follow.**

**Question 1**

Write the SQL code that will create the table structure for the table that stores the cat details.

**Question 2**

Write the SQL code to populate the table that stores the breeds with data. Populate the table with the following breed descriptions:

• Siamese

• Burmese

• Sphynx

• Persian

• Maine Coon

Also, write the SQL code to display the contents of the table once the table has been populated.

**Question 3**

Assume that the database has been populated with data. Write the SQL code to list all the cats belonging to owner Thabo Ndlovu in ascending alphabetical order.

**Question 4**

Assume that the database has been populated with data. Write the SQL code to generate the report shown below. This report lists the breeds in ascending alphabetical order with the number of cats that belong to that breed.

|  |  |  |
| --- | --- | --- |
| **BREED** | **NUMBER OF**  **CATS** |  |
| Burmese | 2 |  |
| Maine Coon | 1 |  |
| Persian | 2 |  |
| Siamese | 1 |  |
| Sphynx | 3 |  |