Name: Thando Masina

Student Number: EDUV2671869

Date of Submission: 5 April 2024

Project 2: Tyger Valley Pet Shelter (TVPS)

FOODMANUFACTURER

#\*companyID

\*companyName

\*contactNumber

°email

FOODTYPE

#\*foodID

\*foodName

\*foodExpiryDate

°foodDescr

\*measurement

ALLOCATEQUANTITY

\*allocatedAmount

Initial ERD

PETTYPE

#\*animalType

\*totalInStock

CATEGORY

#\*categoryID

\*categoryName

must have

may have

Normalisation 0NF, 1NF, 2NF, 3NF

1NF

(PK)foodID foodID(FK)

foodName categoryID

foodExpiryDate categoryName

foodDesc allocatedAmount

companyID animalType

companyName totalInStock

contactNumber

e-mail

0NF

(PK)foodID

foodName

foodExpiryDate

foodDesc

companyID

companyName

contactNumber

e-mail

categoryID

categoryName

animalType

TotalInStock

allocatedAmount

2NF

(PK)foodID foodID (FK)

foodName categoryID (FK)

foodExpiryDate allocatedAmount

foodDesc

companyID (PK)categoryID

companyName categoryName

contactNumber

e-mail (PK)allocatedAmount

totalInStock

(PK)

(PK)

3NF

(PK)foodID foodID (FK)

foodName categoryID (FK)

foodExpiryDate allocatedAmount

foodDesc

companyID (FK) (PK)categoryID

categoryName

(PK)companyID

companyName (PK)allocatedAmount

contactNumber totalInStock

email

ERD from 3NF

FOODMANUFACTURER

#\*companyID

\*companyName

\*contactNumber

°email

ALLOCATEQUANTITY

\*allocatedAmount

FOODTYPE

#\*foodID

\*foodName

\*foodExpiryDate

°foodDescr

\*measurement

PETTYPE

#\*animalType

\*totalInStock

CATEGORY

#\*categoryID

\*categoryName

Mapping ERD to TABLES

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FOODMANUFACTURER | | | | |
| Column name | companyID | companyName | contactNumber | e-mail |
| Key type | **PK** |  |  |  |
| Nulls | NN | NN | NN |  |
| Sample date | 254 | PetShelter | 076-567-4322 | PetShelter@gmail.com |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| FOODTYPE | | | | |
| Column name | foodID | foodName | foodExpiryDate | foodDescr |
| Key type | **PK** |  |  |  |
| Nulls | NN | NN | NN |  |
| Sample date | 006 | Biscuits | 25-Nov-2025 | Biscuits for dogs |

|  |  |  |
| --- | --- | --- |
| CATEGORY | | |
| Column name | categoryID | categoryName |
| Key type | PK |  |
| Nulls | NN | NN |
| Sample data | 12 | Mammals |

|  |  |  |  |
| --- | --- | --- | --- |
| ALLOCATEQUANTITY | | | |
| Column name | allocatedAmount | foodID | categoryID |
| Key type |  | PK,FK1 | PK,FK2 |
| Nulls | NN | NN | NN |
| Sample data | 23 000 | 006 | 12 |

|  |  |  |  |
| --- | --- | --- | --- |
| PETTYPE | | | |
| Column name | animalType | totalInStock | categoryID |
| Key type | PK |  | FK |
| Nulls | NN | NN | NN |
| Sample data | Dog | 500 | 12 |

Documentation

Author: Thando Masina

Lecturer: Ms Nicole Stern

Campus details: Eduvos, Pretoria

Date: 4 April 2024

Purpose of the project;

The purpose of this project is to gather information on a database and use normalisation to reduce redundancy and duplication of data that is provided to make it more efficient.

Purpose of attributes;

Attributes play a fundamental role in database design by defining the structure and properties of the data being stored. They provide the building blocks for defining the structure of the database schema and organizing the data in a meaningful way. They help represent real-world entities and their properties in a structures format that can be manipulated and queried by users and applications.