

Project 2 Specification

Faculty	Information Technology	Module Name	Database Management
Module Code	ITSSA0	Project Number	2
Total Marks	120	Copy Editor	Ms Nicole Stern

Instructions to Student

1. All work, including draft notes, must be submitted with the completed project.
2. The program must be operational with as few faults as possible.
3. 10% will be deducted from this project if it is returned for resubmission due to plagiarism.

Plagiarism and Referencing

Consult the section at the end of this document, which outlines how negative marking will be applied as well as the way in which it will affect the assignment mark.

Section A

Question 1

120 Marks

Tygervally Pet Shelter (TPS) receives food donations from a group of pet food manufacturers. TPS relies on each manufacturing company for a particular need. For example, Veggie Land supplies all vegetables and Premier Seed Suppliers supply all seeds.

The different food types are allocated to the animals according to their category. For example, food type 'seeds' is allocated to category 'Birds', while food type 'vegetables' is allocated to categories 'Mammals' and 'Birds'.

Each animal category is subdivided into different pet types. For example, the mammal record could relate to pet types 'Dog' and 'Cat'.

TPS has recruited you to be their database designer. The database that you must design will store information on their suppliers, food types, animal categories and pet types.

Record a unique, auto-incrementing ID, company name, contact number and an e-mail address for each manufacturer. When recording information about the different food types, ensure that the expiry date is also stored. When recording how much food will be allocated per animal category, specify the quantity amount as two separate fields. For example, if 8.5 kilograms of Roast Chicken Pellets are allocated to category 'Mammals', '8.5' and 'kg' will be two different fields. The stock level for each pet type must also be stored together with the pet type so that they know there are 10 dogs and 20 cats for category 'Mammals', or 40 parrots for category 'Birds'.

Specifications

Create an ER Diagram for the scenario above.

Create a database.

Create the tables for the scenario above. (Ensure to use constraints such as CHECK and other validation constraints in your tables to avoid losing marks.)

Insert sample data into the tables you created above.

Create the following views:

- vw_ManufacturerDetails – Select manufacturing company details, the food type, food ID and amount per category.
- vw_PetsPerType – Select each animal type, total animals in stock, the animal category ID and category name.
- vw_ExpiredFoodDetails – Select the company name, contact number, food ID, name, expiry date, amount per category, measurement and the category name. This only applies to expired products that are in use (have dependent records). HINT: Use the GETDATE() function to compare the expiry date against today's date.
- vw_LowestFoods – Select the category name and the sum of the total animals in the category. Only the three records with the lowest pets must be selected.

Create the following stored procedures:

- sp_NewPetType – Insert a new pet type record. Remember to check whether or not the foreign key argument is an existing category primary key.
- sp_UpdateStock – Update an existing pet type record. The procedure must make use of three arguments – 1: pet type primary key, 2: the number of animals that must be added/subtracted, 3: bit number representing addition (1) or subtraction (0).
- sp_DeleteFoodType – Delete a specified food type and all dependent/child records. However, only delete the type if it is contained in the vw_ExpiredFoodDetails view.
- sp_Report – Print a specified manufacturing company's details and all its expired products in use. The report should also display a header as well as the current date and time. Retrieve the products by using the vw_ExpiredFoodDetails view. The report should be displayed as follows:

EXPIRED PRODUCTS REPORT:

Generated:

Jan 18 2017 8:05AM

Company ID: 2

Company Name: Veggie Land

Contact Number: (051) 861 2571

Email: sales@veggieland.co.za

Food ID	Food Type
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1	Green Vegetable Mix
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6	Carrots
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Total Records: 2

Create 2 (two) after triggers on the tables you have created.

Create Indexes on the tables you created.

Create a zipped backup of your database and hand it in with your script files.

End of Question 1

Section B

Plagiarism and Referencing

Eduvos places high importance on honesty in academic work submitted by students, and adopts a policy of zero tolerance on cheating and plagiarism. In academic writing, any source material e.g. journal articles, books, magazines, newspapers, reference material (dictionaries), online resources (websites, electronic journals or online newspaper articles), must be properly acknowledged. Failure to acknowledge such material is considered plagiarism; this is deemed an attempt to mislead and deceive the reader, and is unacceptable.

Eduvos adopts a zero tolerance policy on plagiarism, therefore, any submitted assessment that has been plagiarised will be subject to severe penalties. Students who are found guilty of plagiarism may be subject to disciplinary procedures and outcomes may include suspension from Eduvos or even expulsion. Therefore, students are strongly encouraged to familiarise themselves with referencing techniques for academic work. Students can access the Guide to Referencing on *myLMS*.

Negative Marking

- At the discretion of the marker, if a student has committed plagiarism, an immediate 0% will be awarded for the project and 10% will be deducted from their next submission.