MONASH University Information Technology	FIT9132 Introduction to Databases Semester 1, 2015

Assignment 2

Due Date: Monday, 21 September 2015, 10 PM
Assignment weighting: 10%

Use the conservation database created under the account “as2” in the FIT9132 Oracle server to complete this assignment.

1. How many animals, which have been born in the wild, belong to the EQUIDAE family. Name the output column "Number of animals".

2. In a single list show all animals indicating if the animal has been exchanged or not - the list should show animal id, centre name, popular name, and an exchange status message. The list should be in animal id order within popular name order. Your output should have the general form (sample rows only shown):

Animal ID	Centre Name	Popular Name	Exchange Status
4	Australia Zoo	Black Rhinoceros	This animal has been Exchanged
10	Alice Springs Desert Park	Black Rhinoceros	This animal has NOT been Exchanged
11	Alice Springs Desert Park	Black Rhinoceros	This animal has NOT been Exchanged
12	Alice Springs Desert Park	Black Rhinoceros	This animal has NOT been Exchanged
6	Werribee Open Range Zoo	Cheetah	This animal has been Exchanged
13	Alice Springs Desert Park	Cheetah	This animal has NOT been Exchanged

3. List the animal id, genus, species, sex and number of exchanges for those animals which have been involved in more than the average number of exchanges per animal (for those animals which have been exchanged). The animal sex should be displayed as 'Male" or 'Female'. Your output should have the general form (sample row only shown):

Animal ID	Genus	Species	Sex	Number of Exchanges
25	Equus	grevyi	Male	2

4. Which is the most popular centre for exchange to or from? Your output should list the centre name and the number of times the centre has been used for an exchange_from or an exchange_to. The exchange_from and the exchange_to will be calculated as a single figure. For example, if a centre is involved in an exchange as a recipient (exchange_to) and in another exchange as a provider (exchange_from) then this centre will be counted to have 2 exchange events. The list should be displayed in the order of the centre name. Your output should have the general form (sample rows only shown):

Centre Name	Number of Exchanges (To/From)
Werribee Open Range Zoo	6

5. List the genus name, and the ratio of the animals born in the wild to the total animals for that genus in the database. Show the ratio as a percentage, round it to one decimal point. Order the list according to the genus name.

SPEC_GENUS	PERCENTAGE
Acinonyx	75.0
Diceros	50.0
Equus	75.0
Hippopotamus	50.0
Lasiorhinus	100.0

6. List all centres that do not receive any grants. Order the list according to the centre name.

7. List all offspring born as a result of the various centres breeding programs. List the animal id of the offspring, the animal id of the mother, the animal id of the father and the popular name of the animal. Order the list according to the popular name.

8. List the centre name and the number of times the centre has been involved in an exchange for a breeding program in the last two years. The centre involved in the exchange can be as a recipient or a provider for the animal exchange. The two years should be counted from the current date when the query is executed. The list should be ordered from the highest to the lowest number of exchanges.

The following files are to be submitted as part of assignment 2:

- Completed FIT9132A2_SQL.sql
- The output of the script from SQL developer. Name the file FIT9132A2_Output.txt.

You must submit a single zip file in Moodle named a2-<yourauthcateid>.zip e.g., a2-xyz123.zip containing the above-mentioned files before the assignment due date.

The submitted assignment will be assessed on the following criteria:

- Producing the desired output for the above questions.
- Correct use of the SQL clauses, Oracle's functions and the logic of the code.
- Understanding of the written code. This will be assessed in an an interview with your tutor. The interview will be organised after the submission.

Late Penalty:

Any submission after the due date will receive a deduction of 5 marks per day, which includes weekends.