IS Project Specification

Module	Basic Java Programming		
Code	MLBJ175-01	**Project Number**	1
Project Title	Zoo Register	**Marks**	100

Instructions

- All work, including draft notes, must be submitted with the completed project.
- The pass mark is 60%.
- 10% will be deducted for this project if it is handed back for resubmission.
- 20% will be deducted if this project is handed back for resubmission due to plagiarism.

Scenario

For this project you will need:

- A client application.
- A server application that can be accessed from multiple machines that run the client application.
- A database consisting of three tables, which will be stored on the server machine.

Client Application

The client interface must consist of two GUIs. Firstly, a GUI is where a user can enter an animal's name or species to search for it. The user must be able to enter partial matches, e.g. 'bob' would return 'Bobby the Bear' and 'Kitty Bobcat' and 'panther' for species would return 'panthera leo' and 'panthera pardus'. Secondly, an administrator GUI is where an administrator can insert and delete information from the database.
Use regular expressions to check that valid information is entered (e.g. no numbers in species). To access the administrator GUI, a user name and password must be entered and checked against the database to see if they are correct. If the user searches for an animal's name or species that does not exist, a message indicating this must be displayed to the user.
All functionality of the client application should be contained in a menu. Also provide a help menu.
When the user closes the application, they must be given the option to minimise, exit, or cancel the operation.

Server Application

The server must contain a start-up button and a shut down button, which will start up and shut down the server respectively. The user must enter the administrator user name and password to be able to start up or shut down the

server. The server must be able to handle multiple client connections. Only the server application will query the database directly, by receiving requests from the client. The results will be returned to the client for display to the user.

Database

The database will consist of three tables. The first table must have an animalId (Primary Key field), animalName, description, and a speciesId (Foreign Key field). The second table must have a speciesId (Primary Key field) and a speciesName. The third table must have a userId (Primary Key field), username, and password. You **must** use an Access database.

Make sure that the speciesId already exists before entering a value. You need to be able to insert data into both tables, but be able delete from the animal table only and not the species table.

The data in the user table can be inserted into your database manually. You do not need to insert, update or delete the data in this table as it will only be used to check if an administrator has entered the correct user name and password.