1. **COURSEWORK TITLE**

Bintang Veterinary Clinic and Boarding System (BVCB)

1. **THE COURSEWORK OVERVIEW**

Bintang Veterinary Clinic and Boarding (BVCB) is a growing provider of veterinary care for both domestic and exotic pets. Having started out as a small business, the owner and main vet never saw the need to computerise the clinic, preferring to utilise a paper based system instead. The growing demands of the business now necessitate some form of computerisation in order to keep track of patients (pets) and their medical history, their owners, and the workload of each vet working at BVCB.

The clinic has 8 vets in total, although on any given day only 3 will be working. Each vet has one or more areas of expertise (ie fish, reptiles), therefore one of the challenges that the clinic is facing is trying to ensure the right balance of expertise is available. In addition to veterinary services, the clinic also provides a pet boarding service the management of which much also be handled by the new system.

1. **OBJECTIVES OF THIS COURSEWORK**

- Develop the practical ability to describe, justify, and implement an object oriented system.

1. **LEARNING OUTCOMES**

At the end of this coursework, you should be able to:

* Understand the techniques of Object Oriented design
* Develop hands-on programming skill in developing java applications
* Design and implement Object Oriented software systems
* Select appropriate Object Oriented techniques to solve software development problems

1. **TYPE**

* Individual Assignment

1. **COURSEWORK DESCRIPTION**

Each user of the system has his/her own user name and password. The users of the system and their priorities are as follows:

Receptionist

The receptionist acts as the main interface between the veterinary clinic and its customers/patients. The clinic works on an appointment basis (except in the case of emergencies), therefore the receptionist is required to do the following:

* Make/edit/cancel appointments
* Create customer and pet profiles
* Assign a vet to each appointment
* Make/edit/cancel bookings for the clinic's boarding services

Vets

The vets are responsible for the care and treatment of pets. They are therefore required to:

* Enter the diagnosis and prognosis of each pet seen
* View the status of pets kept overnight (see Boarding Staff section below)
* Vets also need to be able to view their appointments therefore the system should provide each vet with a 'diary' of the day's appointments

Owner/Manager

* The owner needs to use the system to create the week's working rota (which vets are working on which days)
* In addition, some reporting functionality is required such as the number/types of animals seen by each vet, the amount of income generated over a given time, and the number of pets staying overnight etc (the owner would like to get as much useful information from the system as possible and is therefore open to the inclusion of any other useful reports)

Boarding Staff

The clinic has two additional staff members responsible for looking after pets which are being boarded by their owners. Boarding staff will use the proposed system as follows:

* Update the status of each pet staying overnight
* Update when each pet was last fed

1. **GENERAL REQUIREMENTS**

* The system submitted shall compile and be executed without errors.
* Validation shall be done for each entry from the users in order to avoid logical errors.
* The implementation code must highlight the use of object oriented programming concepts as required by the solution.

1. **DELIVERABLES:**

* The veterinary system with complete code submitted in the form of a CD-ROM.
* Documents delivered in printed and softcopy form.
* Submission deadline:**17th August 2015, 5:00 PM**
  1. **BINTANG VETERINARY CLINIC AND BOARDING SYSTEM:**
* The completed application of the system as well as the softcopy of the report must be burned onto a CD-ROM.
* The application must contain all the relevant source code.

**8.2 *DOCUMENTS: COURSEWORK REPORT***

* As part of the assessment, you must submit the project report in printed and softcopy form. The font size used in the report must be 12pt and the font is Times New Roman. Full source code is not allowed to be included in the report. The report must be typed and clearly printed. Besides, the report should have the following format:

1. Cover Page:

All reports must be prepared with a *front cover*. A protective transparent plastic sheet can be placed in front of the report to protect the front cover. The front cover should be presented with the following details:

Module

Coursework Title

Intake

Student name and id

Date Assigned (the date the report was handed out)

Date Completed (the date the report is due to be handed in)

1. Table of contents
2. Contents:

* Description and justification of the system model design and the implementation code which illustrate the object oriented programming concepts incorporated into the solution.
* Additional features which have been incorporated into the solution.
* Sample outputs when the system is executed with some explanation of the outputs/sections of the code.
* Assumptions made.

1. Conclusion
2. References

* You may source algorithms and information from the Internet or books. Proper referencing of the resources should be evident in the document.
* All references must be made using the Harvard Naming Convention as shown below:

*The theory was first propounded in 1970 (Larsen, A.E. 1971), but since then has been refuted; M.K. Larsen (1983) is among those most energetic in their opposition……….*

*/\*\**

*\* Following source code obtained from (Danang, S.N. 2002)*

*\*/*

*int noshape=2;*

*noshape=GetShape();*

* List of references at the end of your document or source code must be specified in the following format:

*Larsen, A.E. 1971, A Guide to the Aquatic Science Literature, McGraw-Hill, London.*

*Larsen, M.K. 1983, British Medical Journal [Online], Available from http://libinfor.ume.maine.edu/acquatic.htm (Accessed 19 November 1995)*

*Danang, S.N., 2002, Finding Similar Images [Online], The Code Project, \*Available from http://www.codeproject.com/bitmap/cbir.asp, [Accessed 14th \*September 2006]*

* Further information on other types of citation is available in *Petrie, A., 2003, UWE Library Services Study Skills: How to reference [online], England, University of Western England, Available from http://www.uweac.uk/library/resources/general/info\_study\_skills/harvard2.htm, [Accessed 4th September 2003].*

1. **ASSIGNMENT ASSESSMENT CRITERIA**

The assignment assessment consists of four components: Requirement Analysis (30%), Implementation (30%), Report (30%), and Presentation (10%). Details of the division for each component are as follows:

|  |  |
| --- | --- |
| **Criteria** | **Marks allocated** |
| Requirement Analysis:  - Use-case diagram with descriptions  - Class diagram  - Activity diagram | **30%**  10%  10%  10% |
| Implementation:  - Create/edit/delete appointments and boarding bookings  - Manage vet schedule/diary  - Create and view reports | **30%**  10%  10%  10% |
| Report:- Professional Report Format- Program Documentation | **30%**  10%  20% |
| Presentation:Ability to answer questions addressed by the lecturer pertaining to the work done and presented | **10%** |

1. **DEVELOPMENT TOOLS**

The program must be written in Java and you can use any Java development IDE as a tool.

1. **ACADEMIC INTEGRITY**

* You are expected to maintain the utmost level of academic integrity during the duration of the course.
* Plagiarism is a serious offence and will be dealt with according to APU and Staffordshire University regulations on plagiarism.