Republic of the Philippines
BOHOL ISLAND STATE UNIVERSITY
Magsija, Balilihan, 6342, Bohol, Philippines
Office of the College of Computing and Information Sciences
Balance | Integrity | Stewardship | Uprightness

Applications Development and Emerging Technologies

LABORATORY 1: Python Classes – Vet Clinic Management System

Introduction

This lab introduces the concept of Object-Oriented Programming (OOP) in Python by focusing on creating and using classes. Students will learn to define a class, create objects from that class, and understand the concepts of attributes and methods.

Objective

This laboratory aims to assess students based on:

- Understand the concept of classes and objects in Python.
- Create a Python class with attributes and methods.
- Create objects from a class and access their attributes and methods.
- Understand the importance of encapsulation and abstraction in OOP.

Materials

- Computer with internet access
- Text editor (e.g., Notepad++, Sublime Text, VS Code)

Expected Output

Create a **VetClinic class** that must do the following:

- Initialize patient records for the pet's name, species, and owner.
- List down all newly created patient records inside a data structure.
- Create a class method to return the list of patients.
- Additionally, create methods for booking appointments, update patient information, and generate reports.
- Have students create an instance of the VetClinic class.
- Perform operations and print the results to ensure everything works as expected.
- **5pt Bonus**: Create a method that would cancel an existing appointment, if selected.
- **Note**: Add error handling for invalid inputs.

Submission and Evaluation

1. Upload your source code file to the Google form provided. Please ensure that only one student from each pair submits the assignment.

Applications Development and Emerging Technologies

2. For ease of tracking, the naming conventions for this laboratory will be **[CourseCode]_[Section]_Lab1_[StudentA'sSurnameFN]_[StudentB'sSurnameFN].py.** For example, **IT322_BSIT3C_Lab1_DelaCruzJ_DalisayC.py**

Laboratory Exercises Criteria

COMPONENT	DESCRIPTION	POINTS
Code Understanding		**15 POINTS**
Clarity	Questions pertaining to the code's functionality and overall performance were answered.	10 points
Structure	The code is logically organized and structured.	5 points
Functionality		**15 POINTS**
Correctness	The code produces the expected results, with minimal to no errors.	10 points
Completeness	The code covers all required features and tasks	5 points
Code Quality		**10 POINTS**
Efficiency	The code is optimized and efficient in its execution.	5 points
Readability	The code is readable and well-formatted.	5 points
Innovation and Creativity		**10 POINTS**
Originality	The code demonstrates creative and innovative approaches.	5 points
Comments	The code is well-commented and easy to understand.	5 points
TOTAL		**50 POINTS**

Deadline and Defense Details

Expected Defense Date: January 31, 2025, from 7:30 am to 10:30 am
Where: At RM 207
Who: BSIT 3C students, taking up the IT 322 course