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Unit 2 Submission Node 1

CS288 – C++ Programming

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Class/Object instantiation has always thrown me for a loop. But to honest, I much rather prefer working with this in C++ rather Python.

Class file (Definition.h)

// Unit 2 Submission 1  
// Definition  
#include <iostream>  
#include <cstdlib>  
#include <ctime>  
#include <string>  
**using namespace** std;  
  
**class** Vertebrate {  
**private**:  
 // object attributes (private so as not to tamper with accidentally outside of class)  
 string hasBackbone, isMam, extinct;  
 string aniMal, habitat;  
  
**public**:  
 // constructor  
 Vertebrate(string animalInput, string backBone, string mammal, string isExtinct, string envHabitat)  
 {  
 aniMal = animalInput;  
 hasBackbone = backBone;  
 isMam = mammal;  
 extinct = isExtinct;  
 habitat = envHabitat;  
 }  
  
 // functions to return entry.  
 // can be used for handling anything (such as passing values to any other methods or classes.  
 string getAniMal()  
 {  
 **return** aniMal;  
 }  
  
 string getBackBone()  
 {  
 **return** hasBackbone;  
 }  
  
 string getIsMam()  
 {  
 **return** isMam;  
 }  
  
 string getExtinct()  
 {  
 **return** extinct;  
 }  
  
 string getHabitat()  
 {  
 **return** habitat;  
 }  
};  
  
//  
// Created by Ian Sabey on 11/2/18.  
//

Since my method is to write one .cpp file and run the assignments as classes, it created an interesting challenge for me. I was able to overcome it and run my code with no errors. All instance manipulation is on the .cpp file.

// main file to determine which submission node to run  
#include <iostream>  
#include <string>  
#include "Strings.h"  
#include "Definition.h"  
  
**using namespace** std;  
  
**int** main() {  
 cout << "Welcome to Unit 2. Which file would you like to run? (string/construct)" << endl;  
 string fileChoice;  
 cin >> fileChoice;  
 **if** (fileChoice == "string") {  
 Strings strings;  
 strings.stringMain();  
 main();  
 }  
 **else if** (fileChoice == "construct") {  
 string backBone, mammal, isExtinct;  
 string animal, envHabitat;  
 cout << "What type of animal would you like to enter?" << endl;  
 cin >> animal;  
 cout << "Does this animal have a backbone?(true/false)" << endl;  
 cin >> backBone;  
 cout << "Is this animal a mammal?(true/false)" << endl;  
 cin >> mammal;  
 cout << "Is this animal extinct?(true/false)" << endl;  
 cin >> isExtinct;  
 cout << "What kind of habitat is this animal from?(domestic, wild, etc)" << endl;  
 cin >> envHabitat;  
  
 // instantiation of Vertebrate object using variables from user entry.  
 Vertebrate newAnimal(animal, backBone, mammal, isExtinct, envHabitat);  
 cout << "Here's what you have told me about " << newAnimal.getAniMal() << endl;  
 cout << animal << "s have backbones? " << newAnimal.getBackBone() << endl;  
 cout << animal << "s are mammals? " << newAnimal.getIsMam() << endl;  
 cout << "Are " << animal << "s extinct? " << newAnimal.getExtinct() << endl;  
 cout << "What kind of habitat do they live in? " << newAnimal.getHabitat() << endl;  
 main();  
 }  
 **else** {  
 cout << "That is an invalid option" << endl;  
 main();  
 }  
}  
  
//  
// Created by Ian Sabey on 10/17/18.  
//