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\* Roberto Andino

\* Version 1

\* Program is done in Java programming language

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\* This tester.java class has the main method that creates 6 monsters with the

\* option to create more monsters if the user chooses to, the user can also

\* update or see the current attributes of any monster.

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package monsterproject;

import java.io.IOException;

import java.util.ArrayList;

import java.util.Scanner;

public class tester {

public static void main(String[] args) {

//for user input

int choice = 0;

int choice2 = 0;

int choice3 = 0;

int monChoice = 0;

//current monster count

int monsterCount = 5;

//New monster variables

String Name = "";

String Height = "";

String Gender = "";

String Species = "";

int Teeth = 0;

int Age = 0;

//to get user input

Scanner input = new Scanner(System.in);

//array list of type monster

ArrayList<monster> list = new ArrayList<monster>();

//creating 6 monsters

list.add(new monster("dracula", "7 feet", "male", "vampire", 46,

1320));

list.add(new monster("frankenstein", "8 feet", "male", "human", 32, 76));

list.add(new monster("lycan", "6 feet", "male", "werewolf", 66, 300));

list.add(new monster("Bigfoot", "9 feet", "male", "mythical ape", 44,

240));

list.add(new monster("lochness monster", "130 feet", "female", "Giant eel",

170, 1030));

list.add(new monster("Xenomorph", "6'10 feet", "female", "alien", 60, 20));

do //do while loop so program loops until user decides to exit

{

//Displaying menu

System.out.print("\n------Welcome To Monster House------\n\n");

System.out.print("--Main Menu--\n");

System.out.print("1) Monsters \n2) New Monster \n3) Exit \n"

+ "Type choice 1-3: ");

choice = input.nextInt(); //getting user input

//while loop in case user inputs wrong number

while(choice <= 0 || choice >= 4){

System.out.print("OOPS! Must type betwen 1-3: ");

choice = input.nextInt();

}

if (choice == 1) //Monsters

{

System.out.print("\n--Monsters--\n");

//for loop to display monster names

for (int count = 0; count <= monsterCount; count++) {

System.out.print(count + ") " + list.get(count).getName()

+ "\n");

}

System.out.print("\nWhat would you like to do?\n"

+ "1) Monster Data \n2) Update monster data "

+ "\n3) Main menu \ntype choice 1-3: ");

choice2 = input.nextInt();

//while loop in case user inputs wrong number

while(choice2 <= 0 || choice2 >= 4){

System.out.print("OOPS! Must type betwen 1-3: ");

choice2 = input.nextInt();

}

if (choice2 == 1) //to display monster data

{

int exit = 0; //for user input

//do while to ask user if he/she wants to display another

//monsters data

do{

System.out.print("Which monster?\n" + "type choice 0-"

+ monsterCount + ": ");

monChoice = input.nextInt();

//while loop in case user inputs wrong number

while(monChoice < 0 || monChoice > monsterCount){

System.out.print("OOPS! Must type betwen 0-" +

monsterCount + ": ");

monChoice = input.nextInt();

}

System.out.println(list.get(monChoice) + "\n");

System.out.print("Would you like to display another "

+ "monsters data? \n1) YES \n2) NO "

+ "\nType number: ");

exit = input.nextInt();

//while loop in case user inputs wrong number

while(exit <= 0 || exit >= 3){

System.out.print("OOPS! Must type betwen 1-2: ");

exit = input.nextInt();

}

}while (exit != 2);

} else if (choice2 == 2) //to update monster data

{

//do while loop to loop until user decides to stop updating

//monster data

do {

int trait;

String trait2;

System.out.print("\nWhich monster? \n Type choice 0-"

+ monsterCount + ":");

monChoice = input.nextInt();

//while loop in case user inputs wrong number

while(monChoice < 0 || monChoice > monsterCount){

System.out.print("OOPS! Must type betwen 0-" +

monsterCount + ": ");

monChoice = input.nextInt();

}

System.out.print("\nYou chose to update: \n"

+ list.get(monChoice));

System.out.print("\n What trait would you like to update"

+ "?\n");

System.out.print("1) Name \n"

+ "2) Height\n"

+ "3) Gender\n"

+ "4) Species\n"

+ "5) TeethCount\n"

+ "6) Age\n Type 1-6: ");

choice3 = input.nextInt();

//while loop in case user inputs wrong number

while(choice3 <= 0 || choice3 >= 7){

System.out.print("OOPS! Must type betwen 1-6: ");

choice3 = input.nextInt();

}

//if else statement to update trait chosen by user

if (choice3 == 1) //updating name

{

System.out.print("What is the monsters new name?\n"

+ "Type Name: ");

trait2 = input.nextLine();

trait2 = input.nextLine(); //second input because

//system skips first one

list.get(monChoice).setName(trait2);

} else if (choice3 == 2) //updating height

{

System.out.print("What is the monster new height\n"

+ "Type Height: ");

trait2 = input.nextLine();

trait2 = input.nextLine(); //second input because

//system skips first one

list.get(monChoice).setHeight(trait2);

} else if (choice3 == 3) //updating gender

{

System.out.print("What is the monster new Gender\n"

+ "Type Gender: ");

trait2 = input.nextLine();

trait2 = input.nextLine(); //second input because

//system skips first one

list.get(monChoice).setGender(trait2);

} else if (choice3 == 4) //updating species

{

System.out.print("What is the monster new Species\n"

+ "Type Species: ");

trait2 = input.nextLine();

trait2 = input.nextLine(); //second input because

//system skips first one

list.get(monChoice).setSpecies(trait2);

} else if (choice3 == 5) //updating teethCount

{

System.out.print("How many teeth does the monster have"

+ " now? \n Type + or - number: ");

trait = input.nextInt();

list.get(monChoice).teeth(trait);

} else if (choice3 == 6) //updating Age

{

System.out.print("How many birthdays has the monster "

+ "had? " + "\n Type number: ");

trait = input.nextInt();

list.get(monChoice).birthday(trait);

}

System.out.print("Would you like to update another trait?"

+ "\n1) YES \n2) NO \n Type 1-2:");

choice2 = input.nextInt();

//while loop in case user inputs wrong number

while(choice2 <= 0 || choice2 >= 3){

System.out.print("OOPS! Must type betwen 1-2: ");

choice2 = input.nextInt();

}

} while (choice2 != 2);

}

} else if (choice == 2) //Add new Monster

{

System.out.print("\nWhat is the monster's name: ");

Name = input.nextLine();

Name = input.nextLine();

System.out.print("\nWhat is the monster's height: ");

Height = input.nextLine();

System.out.print("\nWhat is the monster's gender: ");

Gender = input.nextLine();

System.out.print("\nWhat is the monster's species: ");

Species = input.nextLine();

System.out.print("\nWhat is the monster's teeth count: ");

Teeth = input.nextInt();

System.out.print("\nWhat is the monster's age: ");

Age = input.nextInt();

list.add(new monster(Name, Height, Gender, Species, Teeth, Age));

System.out.print("\n\n---NEW MONSTER CREATED---\n\n");

monsterCount++;

}

} while (choice != 3); //if choice == 3 then program ends

System.out.print("\n ----GOODBYE---- \n");

}

//End of program tester class

}

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\* This monster.java class creates a monster with the current attributes

\* It has get and set methods to update and display the attributes of any of the

\* monsters, and it has a toString method to display all the data of the monster

\* when it is required.

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package monsterproject;

public class monster {

//attributes of monster

private String myName;

private String myHeight;

private String myGender;

private String mySpecies;

private int myTeethCount;

private int myAge;

//Constructor of monster class that receives monster information

public monster(String name, String height, String gender,

String species, int teethCount, int age)

{

myName = name;

myHeight = height;

myGender = gender;

mySpecies = species;

myTeethCount = teethCount;

myAge = age;

}

//Get methods of monster object

public String getName() {

return myName;

}

public String getHeight() {

return myHeight;

}

public String getGender() {

return myGender;

}

public String getSpecies() {

return mySpecies;

}

public int getTeethCount() {

return myTeethCount;

}

public int getAge() {

return myAge;

}

//Setter methods for the Monster object

public void setName(String newName) {

myName = newName;

}

public void setHeight(String newHeight) {

myHeight = newHeight;

}

public void setGender(String newGender) {

myGender = newGender;

}

public void setSpecies(String newSpecies) {

mySpecies = newSpecies;

}

public void setTeethCount(int newTeethCount) {

myTeethCount = newTeethCount;

}

public void setAge(int newAge) {

myAge = newAge;

}

//Setter methods to update attributes using formula

public void birthday(int newAge) {

myAge += newAge;

}

public void teeth(int newTeeth) {

myTeethCount += newTeeth;

}

//String method to diplay all monster data

public String toString() {

return "Monster name: " + myName + " \n"

+ "Gender: " + myGender

+ "\nSpecies: " + mySpecies

+ "\nAge: " + myAge + " old"

+ "\nHeight: " + myHeight + " tall"

+ "\nNumber of teeth: " + myTeethCount + "\n\n";

}

//end of monster class

}