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CSIS 1410

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1. What is the purpose of the keyword new? Explain what happens when this keyword is used in an application?

The purpose of the key work new is to create a java object and allocates memory. New is also use to create an array, and object’s.

<JavaType><Variable> = new <JacaObject>();

Example: Alex list = new Alex(); or int[] intArray = new int[?];

1. What is a default constructor? How are an object's instance variables initialized if a class has only a default constructor?

Is a constructor which is inserted by java when no constructor is provided in the class. Default constructors don’t initialize variables to default values.

1. Explain the purpose of an instance variable.

Instance variables are created for each class instance and are accessible only within that instance.

1. Explain why a class might provide a set method and a get method for an instance variable.

Well a class can hold multiple methods for one class. Methods are operations on a particular object. An object is an instance in a class. Classes are full of variables and its methods.

Example from docs.oracle.com:

public class Bicycle{

private int cadence;

private int gear;

private int speed;

private int id;

private **static** int numberOfBicycles = 0;

public Bicycle(int startCadence,

int startSpeed,

int startGear){

gear = startGear;

cadence = startCadence;

speed = startSpeed;

id = ++numberOfBicycles;

}

public int getID() {

return id;

}

public static int getNumberOfBicycles() {

return numberOfBicycles;

}

public int getCadence(){

return cadence;

}

public void setCadence(int newValue){

cadence = newValue;

}

public int getGear(){

return gear;

}

public void setGear(int newValue){

gear = newValue;

}

public int getSpeed(){

return speed;

}

public void applyBrake(int decrement){

speed -= decrement;

}

public void speedUp(int increment){

speed += increment;

}

}