JavaClass17

Access Modifiers:

Access modifiers are keywrods in java that control the access of methods fields or the class itself.

There are four access levels.

Private:

If something has the access level of private that thing can only be accessed within the same class. This acess

level is the most restricted one. For fields/properties/state of a class, we should always try to have private access level so that the data of a class is

secured.

Default:

Default is not a keyword. it's an access level. if we don't use any keyword with fields or methods java applies the dafault access

level automatically. Once applied we can access those entities within the same class as well as in any class within teh same package.

Protected:

When applied entities can be accessed outside the package as well but only on the class that have parent-child relationship.

Public:

When the public access modifier is applied to an entity that entity can be accessed anywhere inside that project.

Usually the classes itself and methods are declared as public.

Note:

If we are inside the same class we can call a method inside another by just writing its name. But we need

to take care that these methods are both either static or non-static.

package class17;

public class CatTester {

public static void main(String[] args) {

}

}

package class17;

import class18.Animal;

public class Dog extends Animal {

private String breed;

private String color;

private int age;

private double weight;

Dog(String dogName,String dogBreed,String dogColor,int dogAge,double dogWeight){

name=dogName;

breed=dogBreed;

color=dogColor;

if(dogAge>30){

System.out.println("Please enter a valid value");

}else {

age=dogAge;

}

weight=dogWeight;

}

void printInfo(){

System.out.println("name "+name+" "+" breed "+" age "+age);

}

public static void main(String[] args) {

/\* Dog dog=new Dog();

dog.name="Tomy";

dog.breed="Huskey";

dog.color="Pink";

dog.age=10;

dog.weight=30;\*/

Dog dog=new Dog("Tomy","Huskey","Pink",50,30);

dog.printInfo();

/\* Dog dog2=new Dog();

dog2.name="Cmi";

dog2.breed="German";

dog2.color="Green";

dog2.age=12;

dog2.weight=30;\*/

Dog dog2=new Dog("Cmi","German","Green",12,30);

dog2.printInfo();

}

}

package class17;

public class DogTester {

public static void main(String[] args) {

Dog dog=new Dog("Tomy","Huskey",

"Pink",10,30);

// dog.breed="dnfks";

}

}

package class17;

import java.util.Scanner;

public class EmpTester {

public static void main(String[] args) {

Employee josh=new Employee("Josh"

,"IT",120000,25);

josh.printSalary();

josh.calculatePrintTax();

/\*

Below we have more constrcutor calls

\*/

Scanner scanner=new Scanner(System.in);

StringBuilder sb=new StringBuilder("Str");

String str=new String("value");

}

}

package class17;

public class Employee {

private String name;

private String department;

private double salary;

private String id;

private int age;

private double actualSalary;

static String companyName="Syntax";

public Employee(String empName,String empDepart,double empSalary,int empAge ){

name=empName;

department=empDepart;

salary=empSalary;

age=empAge;

}

void printSalary(){

actualSalary=salary+20000+10000;

System.out.println(actualSalary);

}

void calculatePrintTax(){

double tax=actualSalary\*.3;

System.out.println("Tax "+tax);

}

}

package class17;

import java.util.Scanner;

public class Person {

String name;

String color;

String country;

int age;

double weight;

String hairColor;

String eyeColor;

double height;

static char gender='M';

public Person(){

}

public Person(String perName){

name=perName;

}

public Person(String name, String color, String country, int age, double weight, String hairColor, String eyeColor, double height, char gender) {

this.name = name;

this.color = color;

this.country = country;

this.age = age;

this.weight = weight;

this.hairColor = hairColor;

this.eyeColor = eyeColor;

this.height = height;

this.gender = gender;

}

public static void main(String[] args) {

Person person=new Person();

Person person2=new Person("Asma");

Scanner scanner=new Scanner(System.in);

}

}

package class17;

public class Task1 {

/\*

Create a method that will accept an array as parameters and will return a sum of all

elements from that array.

Method should be visibly only within same package and accessible by the creating an

instance of the class.

\*/

int sumArray(int [] arr){

int sum=0;

for (int num:arr

) {

sum+=num;

}

return sum;

}

}

package class17;

import class18.Task1;

public class Task1FromPck18 {

public static void main(String[] args) {

new Task1("Java");

}

}

package class17;

public class Task2 {

/\*

Create a method that will take a String as a parameter and returns reversed String

Method should be available to all classes within your project and accessible by class name.

\*/

public static String reverseStr(String str){

/\* String newStr;

StringBuilder sb=new StringBuilder(str);

sb.reverse();

newStr=sb.toString();

return newStr;\*/

return new StringBuilder(str).reverse().toString();

}

public static void main(String[] args) {

System.out.println(Task2.reverseStr("Sunday"));

}

}

package class17;

public class Task3 {

/\*

Create a method that will accept a String as a parameter and return a new String that consist only of vowels.

Method should be available inside the class only where it was declared and executed by calling it is name.

\*/

// Break 8:36

private static String getVowels(String str){

/\* String newStr=str.replaceAll("[^aeiouAEIOU]","");

return newStr;\*/

return str.replaceAll("[^aeiouAEIOU]","");

}

public static void main(String[] args) {

String humera = getVowels("Humera");

System.out.println("humera = " + humera);

}

}