***INHERITANCE***

***SINGLE INHERITANCE***

**SOURCE CODE:**

package Inheritance;

//parent class-petanimal

class petanimal{

String pet="Dog";

void eat() {

System.out.println("The "+pet+" is eating");

}

void sleep() {

System.out.println("The "+pet+" is sleeping");

}}

//sub class-dog

class dog extends petanimal{

void breed() {

String type="German Shepherd";

System.out.println("The "+pet+" is "+type);

}

void bark() {

System.out.println("The "+pet+" is barking");

}

}

public class Singleinheritance {

public static void main(String[]args) {

dog activity=new dog();

activity.breed();

activity.eat();

activity.sleep();

activity.bark();

}

}

**OUTPUT:**

The Dog is German Shepherd

The Dog is eating

The Dog is sleeping

The Dog is barking

***MULTILEVEL INHERITANCE***

**SOURCE CODE:**

package Inheritance;

//parent class

class bird{

void bname() {

String name="Eagle";

System.out.println("The bird is "+name);

}

}

//derived class1

class eagle extends bird{

void character() {

System.out.println("Eagles are fearless and never surrender to the size or strength of its prey.");

}

}

//derived classone from derived class1

class color extends eagle{

void colour() {

System.out.println("Eagles typically have dark-colored, brown, or blackish feathers.");

}

}

//derived class from derived classone

class eyes extends color{

void eye() {

System.out.println("The size of their eyes is similar to that of humans, and their eyesight is roughly 4-8 times stronger as compared to the average human.");

}

}

public class Multilevelinheritance {

public static void main(String[]args) {

eyes eag=new eyes();

eag.bname();

eag.character();

eag.colour();

eag.eye();

}

}

**OUTPUT:**

The bird is Eagle

Eagles are fearless and never surrender to the size or strength of its prey.

Eagles typically have dark-colored, brown, or blackish feathers.

The size of their eyes is similar to that of humans, and their eyesight is roughly 4-8 times stronger as compared to the average human.

***HEIRARCHICAL INHERITANCE***

**SOURCE CODE:**

package Inheritance;

class food{

void type() {

System.out.println("There are different varaities of food");

}

}

class vegeterian extends food{

void veg() {

String[] vegfood= {"Vegetable","Paneer","Mushroom","Curd","Butter/Ghee"};

System.out.println("The vegeterian protien foods are:");

System.out.println(vegfood[0]);

System.out.println(vegfood[1]);

System.out.println(vegfood[2]);

System.out.println(vegfood[3]);

System.out.println(vegfood[4]);

System.out.println('\n');

}

}

class nonvegeterian extends food{

void nonveg() {

String[] nonvegfood= {"Fish","Chicken","Mutton","Crab","Prawn"};

System.out.println("The non-vegeterian protien foods are:");

System.out.println(nonvegfood[0]);

System.out.println(nonvegfood[1]);

System.out.println(nonvegfood[2]);

System.out.println(nonvegfood[3]);

System.out.println(nonvegfood[4]);

}

}

public class Heirarchicalinheritance {

public static void main(String[]args) {

food fd=new food();

fd.type();

vegeterian vg=new vegeterian();

vg.veg();

nonvegeterian nv=new nonvegeterian();

nv.nonveg();

}

}

**OUTPUT:**

There are different varaities of food

The vegeterian protien foods are:

Vegetable

Paneer

Mushroom

Curd

Butter/Ghee

The non-vegeterian protien foods are:

Fish

Chicken

Mutton

Crab

Prawn