**Factory Pattern Example-1**

package pack1;

import java.util.Scanner;

abstract class Animal

{

abstract String getAnimal();

abstract String makeSound();

abstract String lifeSpan( );

}

class Lion extends Animal {

public String getAnimal( )

{

return "Animal : Lion";

}

public String makeSound( )

{

return "Sound : Roars";

}

public String lifeSpan( )

{

return "Life Span : 35";

}

}

class Cat extends Animal {

public String getAnimal( ) {

return "Animal : Cat";

}

public String makeSound( )

{

return "Sound : Meows";

}

public String lifeSpan( )

{

return "Life Span : 25";

}

}

class Dog extends Animal

{

public String getAnimal( )

{

return "Animal : Dog";

}

public String makeSound( )

{

return "Sound : Barks";

}

public String lifeSpan( )

{

return "Life Span : 22";

}

}

public class AnimalFactoryDemo

{

public static Animal getAnimalType(char choice)

{

Animal ani=null;

if(choice == 'l')

ani = new Lion( );

else if(choice == 'd')

ani = new Dog( );

else if(choice == 'c')

ani = new Cat( );

return ani;

}

public static void main(String[] args)

{

Scanner sobj = new Scanner(System.in);

Animal aobj;

System.out.println("Welcome to Animal Planet");

System.out.println("1.Lion(l)");

System.out.println("2.Dog(d)");

System.out.println("3.Cat(c)");

System.out.println("Enter u r choice :");

aobj = getAnimalType( sobj.next( ).charAt(0));

System.out.println(aobj.getAnimal( ));

System.out.println(aobj.makeSound( ));

System.out.println(aobj.lifeSpan( ));

sobj.close( );

}

}

**Factory Pattern Example-2**

package pack1;

import java.util.Scanner;

abstract class Car

{

abstract String carColor();

abstract String carModel();

}

class Suzuki extends Car {

public String carColor( )

{

return "Color : Red";

}

public String carModel( )

{

return "Suzuki Car Model is Suzuki 2019";

}

}

class Honda extends Car {

public String carColor( ) {

return "Color : Blue";

}

public String carModel( )

{

return "Honda Car Model is Honda 2021";

}

}

class Bmw extends Car

{

public String carColor( )

{

return "Color : White";

}

public String carModel( )

{

return "BMW Car Model is BMW 2020";

}

}

public class CarFactory {

public static Car getCarType(char choice)

{

Car ani=null;

if(choice == 'h')

ani = new Honda( );

else if(choice == 'd')

ani = new Suzuki( );

else if(choice == 'c')

ani = new Bmw( );

return ani;

}

public static void main(String[] args)

{

Scanner sobj = new Scanner(System.in);

Car cobj;

System.out.println("Welcome to Car Factory");

System.out.println("1.Honda(h)");

System.out.println("2.Suzuki(s)");

System.out.println("3.BMW(b)");

System.out.println("Enter u r choice :");

cobj = getCarType( sobj.next( ).charAt(0));

System.out.println(cobj.carModel( ));

System.out.println(cobj.carColor( ));

sobj.close( );

}

}