**CSA0961- JAVA PROGRAMMING**

* B. Rishitha

192324130

**CODE:**

package dffg;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public static void main(String[] args) {

Fish fish1 = new Fish();

fish1.setTypeOfFish("Goldfish");

fish1.setFriendliness(8);

Fish fish2 = new Fish("Betta", 5);

System.*out*.println("Fish 1: " + fish1.getTypeOfFish() + ", Friendliness: " + fish1.getFriendliness());

System.*out*.println("Fish 2: " + fish2.getTypeOfFish() + ", Friendliness: " + fish2.getFriendliness());

}

}

**Output:**

****

**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public static void main(String[] args) {

Fish fish1 = new Fish();

Fish fish2 = new Fish("Betta", 5);

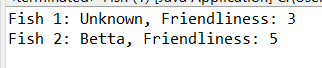
System.*out*.println("Fish 1: " + fish1.getTypeOfFish() + ", Friendliness: " + fish1.getFriendliness());

System.*out*.println("Fish 2: " + fish2.getTypeOfFish() + ", Friendliness: " + fish2.getFriendliness());

}

}

**Output:**



**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public static void main(String[] args) {

Fish fish1 = new Fish();

Fish fish2 = new Fish("Betta", 5);

Fish fish3 = new Fish("Guppy", 7);

System.*out*.println("Fish 1: " + fish1.getTypeOfFish() + ", Friendliness: " + fish1.getFriendliness());

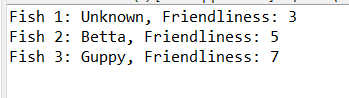
System.*out*.println("Fish 2: " + fish2.getTypeOfFish() + ", Friendliness: " + fish2.getFriendliness());

System.*out*.println("Fish 3: " + fish3.getTypeOfFish() + ", Friendliness: " + fish3.getFriendliness());

}

}

**Output:**

****

**CODE:**

**Default Constructor**:  
public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

**Parameterized Constructor**:

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

**Additional Parameterized Constructor**:

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public int getFriendlinessLevel() {

return friendliness;

}

public static void main(String[] args) {

Fish fish1 = new Fish();

Fish fish2 = new Fish("Betta", 5);

Fish fish3 = new Fish("Guppy", 7);

System.*out*.println("Fish 1 Friendliness: " + fish1.getFriendlinessLevel());

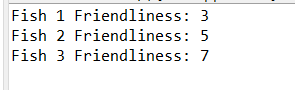
System.*out*.println("Fish 2 Friendliness: " + fish2.getFriendlinessLevel());

System.*out*.println("Fish 3 Friendliness: " + fish3.getFriendlinessLevel());

}

}

**Output:**

****

**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public int getFriendlinessLevel() {

return friendliness;

}

public static void main(String[] args) {

Fish fish1 = new Fish("AngelFish", 5);

Fish fish2 = new Fish("Guppy", 3);

System.*out*.println("Fish 1: Type – " + fish1.getTypeOfFish() + ", Friendliness level – " + fish1.getFriendlinessLevel());

System.*out*.println("Fish 2: Type – " + fish2.getTypeOfFish() + ", Friendliness level – " + fish2.getFriendlinessLevel());

}

}

**Output:**

****

**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public int getFriendlinessLevel() {

return friendliness;

}

public static Fish nicestFish(Fish fish1, Fish fish2) {

if (fish1.getFriendlinessLevel() > fish2.getFriendlinessLevel()) {

return fish1;

} else {

return fish2;

}

}

public static void main(String[] args) {

Fish fish1 = new Fish("AngelFish", 5);

Fish fish2 = new Fish("Guppy", 3);

Fish nicerFish = Fish.*nicestFish*(fish1, fish2);

System.*out*.println("The nicest fish is of type – " + nicerFish.getTypeOfFish() + " with a friendliness level of – " + nicerFish.getFriendlinessLevel());

}

}

**Output:**

****

**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public int getFriendlinessLevel() {

return friendliness;

}

public static Fish nicestFish(Fish... fishArray) {

if (fishArray == null || fishArray.length == 0) {

throw new IllegalArgumentException("No fish provided");

}

Fish temp = fishArray[0];

for (Fish fish : fishArray) {

if (fish.getFriendlinessLevel() > temp.getFriendlinessLevel()) {

temp = fish;

}

}

return temp;

}

public static void main(String[] args) {

Fish fish1 = new Fish("AngelFish", 5);

Fish fish2 = new Fish("Guppy", 3);

Fish fish3 = new Fish("Betta", 4);

Fish nicest = Fish.*nicestFish*(fish1, fish2, fish3);

System.*out*.println("The nicest fish is of type – " + nicest.getTypeOfFish() + " with a friendliness level of – " + nicest.getFriendlinessLevel());

}

}

**Output:**

****

**CODE:**

package nnn;

public class Fish {

private String typeOfFish;

private int friendliness;

public Fish() {

this.typeOfFish = "Unknown";

this.friendliness = 3;

}

public Fish(String typeOfFish, int friendliness) {

this.typeOfFish = typeOfFish;

this.friendliness = friendliness;

}

public Fish(String t, int f) {

this.typeOfFish = t;

this.friendliness = f;

}

public String getTypeOfFish() {

return typeOfFish;

}

public void setTypeOfFish(String typeOfFish) {

this.typeOfFish = typeOfFish;

}

public int getFriendliness() {

return friendliness;

}

public void setFriendliness(int friendliness) {

this.friendliness = friendliness;

}

public int getFriendlinessLevel() {

return friendliness;

}

public static Fish nicestFish(Fish... fishArray) {

if (fishArray == null || fishArray.length == 0) {

throw new IllegalArgumentException("No fish provided");

}

Fish temp = fishArray[0];

for (Fish fish : fishArray) {

if (fish.getFriendlinessLevel() > temp.getFriendlinessLevel()) {

temp = fish;

}

}

return temp;

}

public static void main(String[] args) {

Fish fish1 = new Fish("AngelFish", 6);

Fish fish2 = new Fish("Guppy", 3);

Fish nicest = Fish.*nicestFish*(fish1, fish2);

System.*out*.println("The nicest fish is of type – " + nicest.getTypeOfFish() + " with a friendliness level of – " + nicest.getFriendlinessLevel());

}

}

**Output:**

****

**CODE:**

public class Employee {

private String name;

private String address;

private double salary;

private String phoneNumber;

public Employee(String name, String address, double salary, String phoneNumber) {

this.name = name;

this.address = address;

this.salary = salary;

this.phoneNumber = phoneNumber;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

public String getAddress() {

return address;

}

public void setAddress(String address) {

this.address = address;

}

public double getSalary() {

return salary;

}

public void setSalary(double salary) {

this.salary = salary;

}

public String getPhoneNumber() {

return phoneNumber;

}

public void setPhoneNumber(String phoneNumber) {

this.phoneNumber = phoneNumber;

}

}

**CODE:**

public class BasicMath {

public static int add(int a, int b) {

return a + b;

}

}