The code is :

```
import java.util.Random;
class Mouse {
  // Attribute is put into the private area
  private int legs;
  private String name;
  ////////////////////////////////////////////
// Helping functions
////////////////////////////////////////////
public int getRandomNum()
{
        Random rand = new Random(); //instance of random class
        int upperbound = 5;
        return rand.nextInt(upperbound);
}
  // Constructor
  ////////////////////////
// Manager function
////////////////////////
  public Mouse(int a, String n ){ legs = a; name = n; }
////////////////////////
// Access function
////////////////////////
  // Get method
  public int getLegs(){ return legs; }
  // Set method
  public void setLegs(int a){ legs = a; }
  public boolean isNormal(){return legs == 4;}
  ////////////////////////
// Implementor function
////////////////////////
public void fight()
{
        // Step 1: Call getRandomNum()
        this.legs = getRandomNum();
        // Step 2: Set the value of the data member legs
        //                to the number returned from Step 1

}
```

```
public boolean equals(Object obj) {
Mouse nor;
if (!(obj instanceof Mouse)) return false;
nor = (Mouse) obj;
return (legs == nor.legs);
}
public String toString(){
return (this.name + " its legs number is " + this.legs);
}

}
//test program
public class TestMouse {
  public static void main (String args[]) {
  Mouse jerry = new Mouse(4, "jerry");
  Mouse mickey = new Mouse(4, "mickey");
  jerry.equals(mickey);
  for (;;){
  jerry.fight();
  mickey.fight();

  if (jerry.isNormal()){
        System.out.print("winner is ");
        System.out.println(jerry);
       break;
  }
  else if (mickey.isNormal()){
        System.out.print("winner is ");
        System.out.println(mickey);
       break;
  }
  else {
        System.out.println(jerry);
        System.out.println(mickey);
       break;
  }
  }
  }
}
```

```
    this.legs = getRandomNum();
    // Step 2: Set the value of the data member legs
    //         to the number returned from Step 1

}
public boolean equals(Object obj) {
Mouse nor;
if (!(obj instanceof Mouse)) return false;
nor = (Mouse) obj;
return (legs == nor.legs);
}
public String toString(){
return (this.name + " its legs number is " + this.legs);
}

}
//test program
public class TestMouse {
 public static void main (String args[]) {
 Mouse jerry = new Mouse(4, "jerry");
 Mouse mickey = new Mouse(4, "mickey");
 jerry.equals(mickey);
 for (;;){
 jerry.fight();
 mickey.fight();

 if (jerry.isNormal()){
     System.out.print("winner is ");
     System.out.println(jerry);
    break;
 }
 else if (mickey.isNormal()){
     System.out.print("winner is ");
     System.out.println(mickey);
    break;
 }
 else {
     System.out.println(jerry);
     System.out.println(mickey);
    break;
 }
 }
 }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

Interactive

Stdin Inputs

CommandLine Arguments

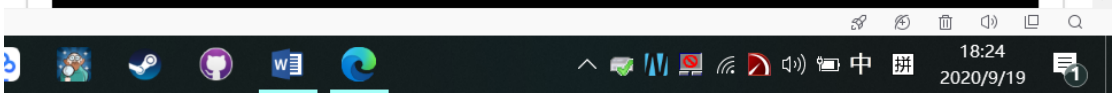
Execute

Result

CPU Time: 0.21 sec(s), Memory: 35316 kilobyte(s)

compiled and executed in 0.868 sec(s)

```
winner is jerry its legs number is 4
```



```
    this.legs = getRandomNum();
    // Step 2: Set the value of the data member legs
    //         to the number returned from Step 1

}
public boolean equals(Object obj) {
Mouse nor;
if (!(obj instanceof Mouse)) return false;
nor = (Mouse) obj;
return (legs == nor.legs);
}
public String toString(){
return (this.name + " its legs number is " + this.legs);
}

}
//test program
public class TestMouse {
 public static void main (String args[]) {
 Mouse jerry = new Mouse(4, "jerry");
 Mouse mickey = new Mouse(4, "mickey");
 jerry.equals(mickey);
 for (;;){
 jerry.fight();
 mickey.fight();

 if (jerry.isNormal()){
     System.out.print("winner is ");
     System.out.println(jerry);
    break;
 }
 else if (mickey.isNormal()){
     System.out.print("winner is ");
     System.out.println(mickey);
    break;
 }
 else {
     System.out.println(jerry);
     System.out.println(mickey);
    break;
 }
 }
 }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

Interactive

Stdin Inputs

CommandLine Arguments

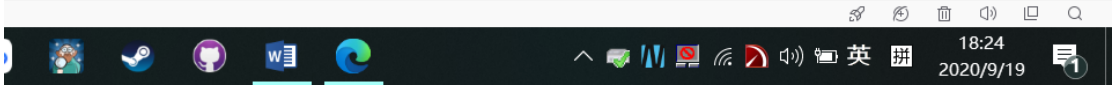
Execute

Result

CPU Time: 0.25 sec(s), Memory: 35292 kilobyte(s)

compiled and executed in 0.894 sec(s)

```
jerry its legs number is 1
mickey its legs number is 1
```



```
    // Step 1: Call getRandomNum()
    this.legs = getRandomNum();
    // Step 2: Set the value of the data member legs
    //         to the number returned from Step 1

}
public boolean equals(Object obj) {
Mouse nor;
if (!(obj instanceof Mouse)) return false;
nor = (Mouse) obj;
return (legs == nor.legs);
}
public String toString(){
return (this.name + " its legs number is " + this.legs);
}

}
//test program
public class TestMouse {
 public static void main (String args[]) {
 Mouse jerry = new Mouse(4, "jerry");
 Mouse mickey = new Mouse(4, "mickey");
 jerry.equals(mickey);
 for (;;){
 jerry.fight();
 mickey.fight();

 if (jerry.isNormal()){
     System.out.print("winner is ");
     System.out.println(jerry);
    break;
 }
 else if (mickey.isNormal()){
     System.out.print("winner is ");
     System.out.println(mickey);
    break;
 }
 else {
     System.out.println(jerry);
     System.out.println(mickey);
    break;
 }
 }
 }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4 | Interactive | Stdin Inputs

CommandLine Arguments

Execute

Result

CPU Time: 0.22 sec(s), Memory: 34560 kilobyte(s) — compiled and executed in 0.945 sec(s)

```
jerry its legs number is 2
mickey its legs number is 1
```

```
    this.legs = getRandomNum();
    // Step 2: Set the value of the data member legs
    //         to the number returned from Step 1

}
public boolean equals(Object obj) {
Mouse nor;
if (!(obj instanceof Mouse)) return false;
nor = (Mouse) obj;
return (legs == nor.legs);
}
public String toString(){
return (this.name + " its legs number is " + this.legs);
}

}
//test program
public class TestMouse {
 public static void main (String args[]) {
 Mouse jerry = new Mouse(4, "jerry");
 Mouse mickey = new Mouse(4, "mickey");
 jerry.equals(mickey);
 for (;;){
 jerry.fight();
 mickey.fight();

 if (jerry.isNormal()){
     System.out.print("winner is ");
     System.out.println(jerry);
    break;
 }
 else if (mickey.isNormal()){
     System.out.print("winner is ");
     System.out.println(mickey);
    break;
 }
 else {
     System.out.println(jerry);
     System.out.println(mickey);
    break;
 }
 }
 }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4 | Interactive | Stdin Inputs

CommandLine Arguments

Execute

Result

CPU Time: 0.27 sec(s), Memory: 34548 kilobyte(s) — compiled and executed in 0.99 sec(s)

```
jerry its legs number is 0
mickey its legs number is 0
```

```
    // Step 1: Call getRandomNum()
    this.legs = getRandomNum();
    // Step 2: Set the value of the data member legs
    //         to the number returned from Step 1

}
public boolean equals(Object obj) {
Mouse nor;
if (!(obj instanceof Mouse)) return false;
nor = (Mouse) obj;
return (legs == nor.legs);
}
public String toString(){
return (this.name + " its legs number is " + this.legs);
}

}
//test program
public class TestMouse {
 public static void main (String args[]) {
  Mouse jerry = new Mouse(4, "jerry");
  Mouse mickey = new Mouse(4, "mickey");
  jerry.equals(mickey);
  for (;;){
  jerry.fight();
  mickey.fight();

  if (jerry.isNormal()){
      System.out.print("winner is ");
      System.out.println(jerry);
     break;
  }
  else if (mickey.isNormal()){
      System.out.print("winner is ");
      System.out.println(mickey);
     break;
  }
  else {
      System.out.println(jerry);
      System.out.println(mickey);
     break;
  }
  }
  }
}
```

Execute Mode, Version, Inputs & Arguments

JDK 11.0.4

Interactive

Stdin Inputs

CommandLine Arguments

Execute

Result

CPU Time: 0.22 sec(s), Memory: 35056 kilobyte(s)

compiled and executed in 0.935 sec(s)

```
winner is mickey its legs number is 4
```