

```
1  // Example.java object 1
2
3  class Example {
4      static int a = m1();
5      static int m1() {
6
7          System.out.println("Example Static Variable: a");
8          return 10;
9      }
10
11     int x = m2();
12     int m2() {
13
14         System.out.println("Example Non-Static Variable: x");
15         return 20;
16     }
17
18     static {
19         System.out.println("Example Static Block");
20     }
21
22     {
23         System.out.println("Example Non-Static Block");
24     }
25
26     Example() {
27
28         System.out.println("Example Non-Parameter Constructor");
29     }
30
31     Example(int x) {
32         this.x=x;
33         System.out.println("Example Int-Parameter Constructor");
34     }
35 }
36
37
38
39 // main method
40
41 // Test03_InstantiatingUsingConstructor.java
42
43 import java.lang.reflect.Constructor;
44 import java.lang.reflect.InvocationTargetException;
45
46 class Test03_InstantiatingUsingConstructor {
```

```
47
48 public static void main(String[] args)
49                                     throws ClassNotFoundException,
50                                     NoSuchMethodException,
51                                     InstantiationException,
52                                     IllegalAccessException,
53                                     InvocationTargetException {
54
55     System.out.println("main method");
56
57     Class cls = Class.forName("Example");
58     System.out.println("cls:" + cls);
59     System.out.println();
60
61     // Object obj = cls.newInstance(); // deprecated
62     // Constructor npc = cls.getConstructor();
63
64     Constructor npc = cls.getDeclaredConstructor();
65     System.out.println("npc:" + npc);
66     System.out.println();
67
68     Object obj1 = npc.newInstance();
69     System.out.println("obj1: " + obj1);
70     System.out.println();
71
72     Object obj2 = npc.newInstance();
73     System.out.println("obj2: " + obj2);
74     System.out.println();
75
76     Constructor ipc = cls.getDeclaredConstructor(int.class);
77     System.out.println("ipc: " + ipc);
78
79     Object obj3 = ipc.newInstance(50);
80     System.out.println("obj3: " + obj3);
81     System.out.println();
82
83     Object obj4 = ipc.newInstance(60);
84     System.out.println("obj4: " + obj4);
85     System.out.println();
86
87     //=====
88
89     Example e1 = (Example)obj1;
90     Example e2 = (Example)obj2;
91     Example e3 = (Example)obj3;
92     Example e4 = (Example)obj4;
```

```
93
94     System.out.println("e1.x: "+ e1.x);
95     System.out.println("e2.x: "+ e2.x);
96     System.out.println("e3.x: "+ e3.x);
97     System.out.println("e4.x: "+ e4.x);
98 }
99
100 }
```