

```
1  // 1st Object Created
2  // =====
3
4  public interface Animal {
5  public void eat();
6  public void sleep();
7  }
8
9  // 2nd Object Created
10 // =====
11
12 class Zoo {
13 public static void sendAnimal(Animal a) {
14     a.eat();
15     a.sleep();
16 }
17 }
18
19 // 3rd Object Created
20 // =====
21
22 class Lion implements Animal {
23 static {
24     System.out.println("Lion class is loaded");
25 }
26
27 Lion() {
28     System.out.println("Lion class object is created");
29 }
30
31 public void eat() {
32     System.out.println("I Lion eats Non-Veg");
33 }
34
35 public void sleep() {
36     System.out.println("I Lion sleep in Caves");
37 }
38 }
39
40
41 // 4th Object Created
42 // =====
43
44 class Rabbit implements Animal {
45 public void eat() {
46
```

```
47     System.out.println("I, Rabbit,eat Vej");
48 }
49
50 public void sleep() {
51     System.out.println("I, Rabbit, sleep in bushes");
52 }
53 }
54
55 // 5th Object Created
56 // =====
57
58 class Elephant implements Animal {
59     static {
60         System.out.println("Elephant is loaded");
61     }
62
63     Elephant () {
64         System.out.println("Elephant object is created");
65     }
66
67     public void eat() {
68         System.out.println("I Elephant eats so much");
69     }
70
71     public void sleep() {
72         System.out.println("I Elephant sleep any where");
73     }
74 }
75
76 // 6th Object Created
77 // =====
78
79 class Tiger implements Animal {
80     static {
81         System.out.println("Tiger class is loaded");
82     }
83
84     Tiger () {
85         System.out.println("Tiger class object is created");
86     }
87
88     public void eat() {
89         System.out.println("I Tiger eats so much");
90     }
91
92     public void sleep() {
```

```
93     System.out.println("I Tiger deep sleeping");
94 }
95 }
96
97 // 7th Object Created & Final Object & Main Methods
98 // =====
99
100 import java.util.Scanner;
101
102 class AnimalSupplier {
103     public static void main(String[] args) throws ClassNotFoundException,
104                                     InstantiationException,
105                                     IllegalAccessException {
106
107         Zoo zoo = new Zoo();
108
109         // Scanner API
110         Scanner scn = new Scanner(System.in);
111
112         System.out.println("Enter Animal: ");
113         String animalName = scn.nextLine();
114
115         // Reflection API for loading & Instantiating
116
117         Class cls = Class.forName(animalName);
118         Object obj = cls.newInstance();
119
120         if(obj instanceof Animal) {
121             Animal animal = (Animal)obj;
122             zoo.sendAnimal(animal);
123         }
124
125         else {
126             System.out.println("Only pass Animals");
127         }
128     }
129 }
130
131
132
133 // Compile & Run ke liye :->
134 // =====
135
136 // 1st Animal :-> Elephant
137 // =====
138 // E:\01_Core Java\Types of Classes>javac Elephant.java
```

```
139
140 // E:\01_Core Java\Types of Classes>java AnimalSupplier
141 // Enter Animal:
142 // Elephant
143 // Elephant is loaded
144 // Elephant object is created
145 // I Elephant eats so much
146 // I Elephant sleep any where
147
148
149 // 2nd Animal :-> Lion
150 // =====
151 // E:\01_Core Java\Types of Classes>javac Lion.java
152
153 // E:\01_Core Java\Types of Classes>java AnimalSupplier
154 // Enter Animal:
155 // Lion
156 // Lion class is loaded
157 // Lion class object is created
158 // I Lion eats Non-Veg
159 // I Lion sleep in Caves
160
161
162 // 3rd Animal :-> Rabbit
163 // =====
164 // E:\01_Core Java\Types of Classes>javac Rabbit.java
165
166 // E:\01_Core Java\Types of Classes>java AnimalSupplier
167 // Enter Animal:
168 // Rabbit
169 // I, Rabbit,eat Vej
170 // I, Rabbit, sleep in bushes
171
172
173 // 4th Animal :-> Rabbit
174 // =====
175 // E:\01_Core Java\Types of Classes>javac Tiger.java
176
177 // E:\01_Core Java\Types of Classes>java AnimalSupplier
178 // Enter Animal:
179 // Tiger
180 // Tiger class is loaded
181 // Tiger class object is created
182 // I Tiger eats so much
183 // I Tiger deep sleeping
184
```

185

186 // End By_ Md_Shamshad_Alam

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