

```
1 Program no 1:
2 // ArrayList with multiple primitive objects
3 package com.collection;
4 import java.util.ArrayList;
5
6 public class ArrayListDemo {
7
8     public static void main(String[] args) {
9
10         ArrayList al = new ArrayList();
11         al.add(10);
12         al.add("Vijay");
13         al.add(25.36);
14         al.add(10);
15         al.add(null);
16         System.out.println(al);
17         System.out.println(al.toString());
18     }
19 }
```

20 OUTPUT:

21 [10, Vijay, 25.36, 10, null]

22 [10, Vijay, 25.36, 10, null]

23 =====.

24 Program no 2:

25 //ArrayList with userdefined objects and predefined objects

26 //Emp.java

27 package com.collection;

28

29 public class Emp {

30

31 int eid;

32 String ename;

33 public Emp(int eid, String ename) {

34 super();

35 this.eid = eid;

36 this.ename = ename;

37 }

38 }

```
39 //Student.java
40 package com.collection;
41
42 public class Student {
43
44     int sid;
45     String sname;
46     public Student(int sid, String sname) {
47         super();
48         this.sid = sid;
49         this.sname = sname;
50     }
51 }
52
53 //ArrayList.java
54 package com.collection;
55 import java.util.ArrayList;
56 public class ArrayListDemo {
57
```

```
58     public static void main(String[] args) {
59
60         ArrayList al = new ArrayList();
61         al.add(new Emp(101, "venu"));
62         al.add(new Student(1, "viru"));
63         al.add(10);
64         al.add("Vijay");
65         al.add(25.36);
66         al.add(10);
67         al.add(null);
68         System.out.println(al.toString());
69     }
70 }
```

71 OUTPUT:

```
72 [com.collection.Emp@6f496d9f, com.collection.Student@723279cf,
73 10, Vijay, 25.36, 10, null]
```

74 =====.

75 Program no 3:

76 // Printing Object data using for each loop and type casting

```
77 package com.collection;
78 import java.util.ArrayList;
79
80 public class ArrayListDemo {
81
82     public static void main(String[] args) {
83
84         ArrayList al = new ArrayList();
85         al.add(new Emp(101, "venu"));
86         al.add(new Student(1, "viru"));
87         al.add(10);
88         al.add(null);
89
90         for(Object o:al)
91         {
92             if(o instanceof Emp)
93             {
94                 Emp e = (Emp)o;
95                 System.out.println(e.eid+" "+e.ename);
```

```
96         }
97         if(o instanceof Student)
98         {
99             Student s = (Student)o;
100             System.out.println(s.sid+" "+s.sname);
101         }
102         if(o instanceof Integer)
103         {
104             System.out.println(o);
105         }
106         if(o == null)
107         {
108             System.out.println(o);
109         }
110     }
111 }
112 }
113 OUTPUT:
114 101 venu
```

```
115 1   viru
116 10
117 null
118 =====
119 Program no 4:
120 // Generics
121 package com.collection;
122 import java.util.ArrayList;
123
124 public class ArrayListDemo {
125
126     public static void main(String[] args) {
127
128         ArrayList<Emp> al = new ArrayList<Emp>(); // generics
129         al.add(new Emp(101, "venu"));
130         al.add(new Emp(102, "vijay"));
131         for (Emp e : al)
132         {
133             System.out.println(e.eid+" "+e.ename);
```

```
134     }
135     ArrayList<Integer> aa = new ArrayList<Integer>(); //get
136     aa.add(10);
137     aa.add(20);
138     aa.add(30);
139     for (Integer a : aa)
140     {
141         System.out.println(a);
142     }
143 }
144 }
145 OUTPUT:
146 101 venu
147 102 vijay
148 10
149 20
150 30
151 =====
152
```


153

154