```java
//Default/0 argument  Constructor and Userdefined / parameteri
Program 1:
class  Demo
{
    int x =100;
    int y=200;

    Demo() // default constructor
    {
        System.out.println("0 arg constructor ");
    }
    Demo(int a) // user defined / 1 arg  constructor
    {
        System.out.println("1 arg constructor ");
    }

    public static void main(String[] args)  // Static method
    {  // Static area

```

```
20          Demo d = new Demo();   // calls default constructor
21          Demo d1 = new Demo(10);  // calls 1 arg constructor
22
23      }
24  }
25
26  Program 2:
27   class  Demo
28  {
29      int x =100;
30      int y=200;
31
32      Demo() // default constructor
33      {
34          System.out.println("0 arg constructor ");
35      }
36      Demo(int a) // user defined / 1 arg  constructor
37      {
38          System.out.println("1 arg constructor ");
```

```
39      }
40
41      public static void main(String[] args)  // Static method
42      {  // Static area
43
44          //Demo d = new Demo();   // calls default constructor
45          Demo d1 = new Demo(10);  // calls 1 arg constructor
46
47      }
48  }
49
50  program 3:
51  // method prints default values
52  class  Demo
53  {
54      int rno;
55      String name;
56      void display()
57      {
```

```
58          System.out.println("Roll number : "+rno);
59          System.out.println("Name : "+name);
60
61      }
62
63      public static void main(String[] args)  // Static method
64      {  // Static area
65
66          Demo d = new Demo();   // calls default constructor
67          d.display();
68
69
70      }
71  }
72  D:\AY 2023-24\SEM-I\JAVA\DIVA>java Demo
73  Roll number : 0
74  Name : null
75
76  Program 4:
```

```
77 // values assigned to instance variables through default const
78 class  Demo
79 {
80     int rno;
81     String name;
82     Demo()
83     {
84         rno=101;
85         name="Vijay";
86     }
87     void display()
88     {
89         System.out.println("Roll number : "+rno);
90         System.out.println("Name : "+name);
91 
92     }
93 
94     public static void main(String[] args)  // Static method
95     {  // Static area
```

```
 96
 97          Demo d = new Demo();   // calls default constructor
 98          d.display();
 99
100
101      }
102 }
103 D:\AY 2023-24\SEM-I\JAVA\DIVA>java Demo
104 Roll number : 101
105 Name : Vijay*/
106
107 program 5:
108 // local variables scope print only default values
109 class  Demo
110 {  // instance variables
111      int rno;
112      String name;
113      Demo(int rno, String name) // local variables
114      {
```

```
115
116     }
117     void display()
118     {
119         System.out.println("Roll number : "+rno);
120         System.out.println("Name : "+name);
121
122     }
123
124     public static void main(String[] args)  // Static method
125     {  // Static area
126
127         Demo d1 = new Demo(101, "Ramesh");    // calls default c
128         d1.display();
129
130         Demo d2 = new Demo(102, "Dinesh");    // calls default c
131         d2.display();
132
133     }
```

```
134 }
135 D:\AY 2023-24\SEM-I\JAVA\DIVA>java Demo
136 Roll number : 0
137 Name : null
138 Roll number : 0
139 Name : null
140
141 progarm 6:
142 // // values assigned to instance variables through parameteri
143 class  Demo
144 {  // instance variables
145     int rno;
146     String name;
147     Demo(int rno, String name) // local variables
148     { //converting local variables in to instance variables
149         this.rno = rno;
150         this.name = name;
151     }
152     void display()
```

```
153     {
154         System.out.println("Roll number : "+rno);
155         System.out.println("Name : "+name);
156 
157     }
158 
159     public static void main(String[] args)  // Static method
160     {  // Static area
161 
162         Demo d1 = new Demo(101, "Ramesh");   // calls default c
163         d1.display();
164 
165         Demo d2 = new Demo(102, "Dinesh");   // calls default c
166         d2.display();
167 
168     }
169 }
170 D:\AY 2023-24\SEM-I\JAVA\DIVA>java Demo
171 Roll number : 101
```

```
Name : Ramesh
Roll number : 102
Name : Dinesh

Program 7:
// Named and Nameless Object creation
class  Demo
{
    Demo ()
    {
        System.out.println("0 arg constructor ");
    }

    Demo (int a)
    {
        System.out.println("1 arg constructor ");
    }


```

```
191     Demo (int a, int b)
192     {
193         System.out.println("2 arg constructor ");
194     }
195     public static void main(String[] args)  // Static method
196     {  // Static area
197         // named object creation approach
198         Demo d = new Demo();
199         Demo d1 = new Demo(10);
200         Demo d2 = new Demo(10,20);
201 
202         //nameless object creation approach
203 
204         new Demo();
205         new Demo(10);
206         new Demo(100,200);
207 
208     }
209 }
```

```
D:\AY 2023-24\SEM-I\JAVA\DIVA>java Demo
0 arg constructor
1 arg constructor
2 arg constructor
0 arg constructor
1 arg constructor
2 arg constructor


Program 8:
// constructor calling
class  Demo
{
    Demo ()
    {
        this(10);    // calls 1 arg constructor
        System.out.println("0 arg constructor ");
    }

```

```
229     Demo (int a)
230     {
231         this (10,20) ;// calls 2 arg constructor
232         System.out.println("1 arg constructor ");
233     }
234
235
236     Demo (int a, int b)
237     {
238         System.out.println("2 arg constructor ");
239     }
240     public static void main(String[] args)  // Static method
241     {  // Static area
242
243         Demo d = new Demo(); // calls 0 arg constructor
244
245     }
246 }
247 D:\AY 2023-24\SEM-I\JAVA\DIVA>java Demo
```

```
248 2 arg constructor
249 1 arg constructor
250 0 arg constructor*/
251
252
253 Program 9:
254 // this statement should be first statement in constructor cal
255 class  Demo
256 {
257     Demo ()
258     {
259         System.out.println("0 arg constructor ");
260         this(10);    // calls 1 arg constructor
261     }
262     Demo (int a)
263     {
264         this (10,20) ;// calls 2 arg constructor
265         System.out.println("1 arg constructor ");
266     }
```

```
267     Demo (int a, int b)
268     {
269         System.out.println("2 arg constructor ");
270     }
271     public static void main(String[] args)  // Static method
272     {  // Static area
273
274         Demo d = new Demo(); // calls 0 arg constructor
275
276     }
277 }
278 D:\AY 2023-24\SEM-I\JAVA\DIVA>javac Constructor.java
279 Constructor.java:245: error: call to this must be first statem
280
281 Program 10:
282 // one constructor can call only one constructor at a time
283 class  Demo
284 {
285     Demo ()
```

```
286     {
287         this(10);    // calls 1 arg constructor
288         this(10,20) ;// calls 2 arg constructor
289         System.out.println("0 arg constructor ");
290 
291     }
292     Demo (int a)
293     {
294 
295         System.out.println("1 arg constructor ");
296     }
297     Demo (int a, int b)
298     {
299         System.out.println("2 arg constructor ");
300     }
301     public static void main(String[] args)  // Static method
302     {  // Static area
303 
304         Demo d = new Demo(); // calls 0 arg constructor
```

```
305
306     }
307 }
```