

Java Concept 62

- **Garbage Collector** calls finalize method of that class whose **object** is **eligible** for **Garbage collection**.

```
1 //String class finalize() is called
2 class JavaConcept
3 {
4     public static void main(String args[])
5     {
6         String obj = new String("Hello");
7         obj = null;
8         System.gc();
9     }
10    public void finalize()
11        { ...}
15 }
```

```
1 //Java class finalize() is called
2 class JavaConcept
3 {
4     public static void main(String args[])
5     {
6         JavaConcept obj = new JavaConcept();
7         obj = null;
8         System.gc();
9     }
10    public void finalize()
11        { ...}
15 }
```

Condition for garbage collection eligibility

- Nullifying the reference variable

```
1 Java obj = new Java();  
2 obj = null;
```

- Re-assigning the reference variable

```
1 Java obj = new Java();  
2 obj = new Java();
```

- Object created inside method

```
1 new Java();
```

```
1 //finalize method of String class is called  
2 class JavaConcept  
3 {  
4     public static void main(String args[])  
5     {  
6         String obj = new String("Hello");  
7         obj = null;  
8         System.gc();  
9     }  
10    public void finalize()  
11    {  
12        System.out.println("JavaConcept "  
13                           + "finalize method called");  
14    }  
15 }
```

run:

BUILD SUCCESSFUL (total time: 0 seconds)

```
1 //finalize method of JavaConcept class is called  
2 class JavaConcept  
3 {  
4     public static void main(String args[])  
5     {  
6         JavaConcept obj = new JavaConcept();  
7         obj = null;  
8         System.gc();  
9     }  
10    public void finalize()  
11    {  
12        System.out.println("JavaConcept "  
13                           + "finalize method called");  
14    }  
15 }
```

run:

JavaConcept finalize method called

```

1 //finalize method of JavaConcept class is called
2 class Abc
3 {
4     public void finalize()
5     {
6         System.out.println(C.P+"Abc finalize "
7             + "method called"+C.RE);
8     }
9 }
10 class JavaConcept
11 {
12     public static void main(String args[])
13     {
14         JavaConcept obj = new JavaConcept();
15         obj = null;
16         System.gc();
17     }
18     public void finalize()
19     {
20         System.out.println(C.R+"JavaConcept "
21             + "finalize method called"+C.RE);
22     }
23 }

```

run:

JavaConcept finalize method called

```

1 //finalize method of Abc class is called
2 class Abc
3 {
4     public void finalize()
5     {
6         System.out.println(C.P+"Abc finalize"
7             + " method called"+C.RE);
8     }
9 }
10 class JavaConcept
11 {
12     public static void main(String args[])
13     {
14         Abc obj = new Abc();
15         obj = null;
16         System.gc();
17     }
18     public void finalize()
19     {
20         System.out.println(C.G+"JavaConcept "
21             + "finalize method called"+C.RE);
22     }
23 }

```

run:

Abc finalize method called

```

1 //finalize method of Abc class is called
2 class Abc
3 {
4
5 }
6 class JavaConcept
7 {
8     public static void main(String args[])
9     {
10         Abc obj = new Abc();
11         obj = null;
12         System.gc();
13     }
14     public void finalize()
15     {
16         System.out.println(C.G+"JavaConcept"
17                             + " finalize method called"+C.RE);
18     }
19 }

```

run:

BUILD SUCCESSFUL (total time: 0 seconds)

```

1 //No finalize method is called
2 //as no unreachable object
3 class JavaConcept
4 {
5     public static void main(String args[])
6     {
7         JavaConcept obj = new JavaConcept();
8         System.gc();
9     }
10    public void finalize()
11    {
12        System.out.println(C.G+"JavaConcept"
13                            + " finalize method called"+C.RE);
14    }
15 }

```

run:

BUILD SUCCESSFUL (total time: 0 seconds)