PRACTICAL:12

AIM: WAP which use the concepts of Garbage Collection in JAVA.

GARBAGE COLLECTOR:

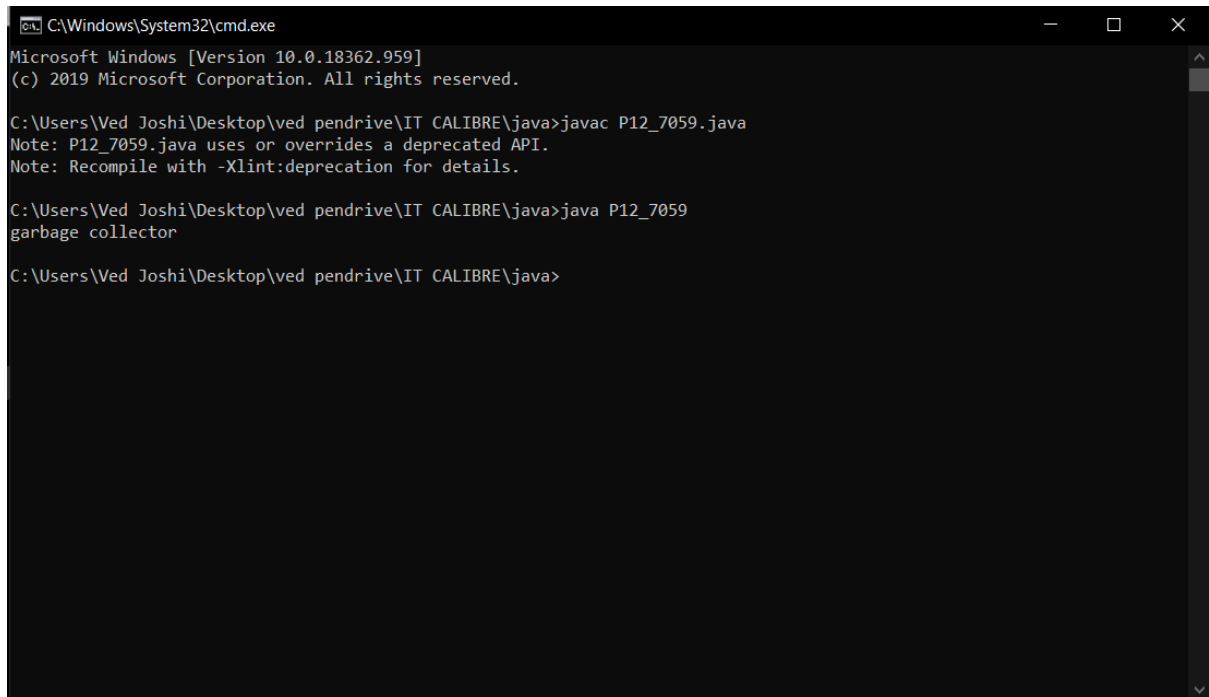In java, garbage means unreferenced objects.

- Garbage Collection is process of reclaiming the runtime unused memory automatically. In other words, it is a way to destroy the unused objects.
- To do so, we were using free() function in C language and delete() in C++.
- But, in java it is performed automatically. So, java provides better memory management.
- There are many ways for using garbage collection:
    1. By nulling the reference
    2. By assigning a reference to another
    3. By anonymous object
    - **By nulling a reference:**
        Employee e=new Employee();
        e=null;
    - **By assigning a reference to another:**
        Employee e1=new Employee();
        Employee e2=new Employee();
        e1=e2;
    - **By anonymous object:**
        new Employee();
    - **finalize() method**
        The finalize() method is invoked each time before the object is garbage collected. This method can be used to perform cleanup processing.
        This method is defined in Object class as:
            protected void finalize(){}
    - **gc() method**
        The gc() method is used to invoke the garbage collector to perform cleanup processing.
        The gc() is found in System and Runtime classes.
            public static void gc(){}

PROGRAM:

```
class P12_7059

{

   public void finalize()

   {

      System.out.println("garbage collector");
```

    }

    public static void main(String[] args)

    {

        P12_7059 g1=new P12_7059 ();

        P12_7059 g2=new P12_7059 ();

        g1=null;

        g2=null;

        System.gc();

    }

}

OUTPUT:

```
C:\Windows\System32\cmd.exe                                    —   □   ×

Microsoft Windows [Version 10.0.18362.959]
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C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>javac P12_7059.java
Note: P12_7059.java uses or overrides a deprecated API.
Note: Recompile with -Xlint:deprecation for details.

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>java P12_7059
garbage collector

C:\Users\Ved Joshi\Desktop\ved pendrive\IT CALIBRE\java>
```