## Aim:

Daemon thread is a low priority thread (in the context of **JVM**) that runs in background to perform tasks such as garbage collection etc., they do not prevent the **JVM** from exiting when all the user threads finish their execution.

**JVM** terminates itself when all user threads finish their execution, even while Daemon threads are running.

The code `Thread.currentThread().isDaemon()` will return `true`, if the current thread **is a daemon** thread and `false` if it **is not a daemon** thread.

Write a Java program to illustrate **daemon threads**.

Write a class `DeamonThreadDemo` which extends the `Thread` class. Override its **run()** method to check whether the current thread is either **daemon** or **user thread** and print **"This is daemon thread"** and **"This is not a daemon thread"** respectively.

Write the **main()** method in the class `DeamonThreadDemo`, which create three instances of class `DaemonThreadDemo` as `t1`, `t2` and `t3` and perform the below tasks in the given order:
1. invoke the `setDaemon()` method on `t1` instance and pass **true** as the argument to set `t1` as a daemon thread.
2. Invoke `start()` method on `t1`, `t2` and `t3` respectively.

**Note:** Please don't change the package name.

## Source Code:

q11351/DaemonThreadDemo.java

```java
package q11351;
public class DaemonThreadDemo extends Thread {
    public void run() {
        if (Thread.currentThread().isDaemon() ) {
            System.out.println("This is daemon thread");
        } else {
            System.out.println("This is not a daemon thread");
        }
    }
    public static void main(String[] args) {
        DaemonThreadDemo t1 = new DaemonThreadDemo();
        DaemonThreadDemo t2 = new DaemonThreadDemo();
        DaemonThreadDemo t3 = new DaemonThreadDemo();
        t1.setDaemon(true);
        t1.start();
        t2.start();
        t3.start();
    }
}
```

Execution Results - All test cases have succeeded!

| Test Case - 1 |
|---|
| User Output |
| This is daemon thread |
| This is not a daemon thread |
| This is not a daemon thread |