

```
// Program to demonstrate multithreading using Thread subclass
class WeatherThread extends Thread {

    // Override the run() method to define the thread's task
    public void run() {
        for (int i = 1; i <= 5; i++) {
            System.out.println(Thread.currentThread().getName() + ": Today is hot, humid
and sunny.");
            try {
                Thread.sleep(500); // pause for 500ms to show concurrent behavior
            } catch (InterruptedException e) {
                System.out.println(e);
            }
        }
    }
}

public class Weather{
    public static void main(String[] args) {
        // Create two thread objects
        WeatherThread t1 = new WeatherThread();
        WeatherThread t2 = new WeatherThread();

        // Set names for the threads (optional but useful for clarity)
        t1.setName("WeatherThread-1");
        t2.setName("WeatherThread-2");

        // Start the threads
        t1.start();
        t2.start();
    }
}
```

```
// Program to create two threads using Runnable interface
class MessagePrinter implements Runnable {
    private String message;

    // Constructor
    MessagePrinter(String message) {
        this.message = message;
    }

    // run() method – defines the code executed by the thread
    public void run() {
        for (int i = 1; i <= 5; i++) {
            System.out.println(message);
            try {
                Thread.sleep(300); // pause for 300 milliseconds
            } catch (InterruptedException e) {
                System.out.println(e);
            }
        }
    }
}

public class RunnableEx{
    public static void main(String[] args) {
        // Create Runnable objects
        MessagePrinter hiPrinter = new MessagePrinter("HI");
        MessagePrinter aiPrinter = new MessagePrinter("AI");

        // Create Thread objects and pass Runnable instances
        Thread t1 = new Thread(hiPrinter);
        Thread t2 = new Thread(aiPrinter);

        // Start the threads
        t1.start();
        t2.start();
    }
}
```

1)

```
AI-B2@snucse-HP-Pro-Tower-400-G9-PCI-Desktop-PC:~/Documents/Siddharth/OOPS/Exercise 10$ gedit Weather.java
AI-B2@snucse-HP-Pro-Tower-400-G9-PCI-Desktop-PC:~/Documents/Siddharth/OOPS/Exercise 10$ javac Weather.java
AI-B2@snucse-HP-Pro-Tower-400-G9-PCI-Desktop-PC:~/Documents/Siddharth/OOPS/Exercise 10$ java Weather
WeatherThread-2: Today is hot, humid and sunny.
WeatherThread-1: Today is hot, humid and sunny.
WeatherThread-1: Today is hot, humid and sunny.
WeatherThread-2: Today is hot, humid and sunny.
WeatherThread-1: Today is hot, humid and sunny.
WeatherThread-2: Today is hot, humid and sunny.
WeatherThread-1: Today is hot, humid and sunny.
WeatherThread-2: Today is hot, humid and sunny.
WeatherThread-1: Today is hot, humid and sunny.
WeatherThread-2: Today is hot, humid and sunny.
```

2)

```
AI-B2@snucse-HP-Pro-Tower-400-G9-PCI-Desktop-PC:~/Documents/Siddharth/OOPS/Exercise 10$ javac RunnableEx.java
AI-B2@snucse-HP-Pro-Tower-400-G9-PCI-Desktop-PC:~/Documents/Siddharth/OOPS/Exercise 10$ java RunnableEx
HI
AI
HI
AI
HI
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AI
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AI
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```