Display Multiplication table for 5 and 10 using various stages of life cycle of the thread by generating a suitable code in Java.\

CODE:

import java.util.Scanner;

class MultiplicationTable extends Thread {

private int number;

public MultiplicationTable(int number) {

this.number = number;

}

@Override

public void run() {

System.out.println("Thread for Multiplication Table of " + number + " is in Running state.");

// Generating and displaying the multiplication table

for (int i = 1; i <= 10; i++) {

System.out.println(number + " \* " + i + " = " + (number \* i));

}

System.out.println("Thread for Multiplication Table of " + number + " is in Terminated state.");

}

}

public class MulTable {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Enter the number for which you want to display the multiplication table (5 or 10): ");

int num = scanner.nextInt();

// Create and start threads for displaying multiplication tables of 5 and 10

MultiplicationTable table5Thread = new MultiplicationTable(5);

MultiplicationTable table10Thread = new MultiplicationTable(10);

table5Thread.start(); // Thread for multiplication table of 5

table10Thread.start(); // Thread for multiplication table of 10

// Displaying the thread states

System.out.println("Thread for Multiplication Table of 5 is in " + table5Thread.getState() + " state.");

System.out.println("Thread for Multiplication Table of 10 is in " + table10Thread.getState() + " state.");

scanner.close(); // Closing the scanner object

}

}

OUTPUT:

C:\javap>javac MulTable.java

C:\javap>java MulTable

Enter the number for which you want to display the multiplication table (5 or 10): 10

Thread for Multiplication Table of 10 is in Running state.

Thread for Multiplication Table of 5 is in Running state.

Thread for Multiplication Table of 5 is in RUNNABLE state.

Thread for Multiplication Table of 10 is in RUNNABLE state.

10 \* 1 = 10

10 \* 2 = 20

10 \* 3 = 30

10 \* 4 = 40

10 \* 5 = 50

10 \* 6 = 60

10 \* 7 = 70

10 \* 8 = 80

10 \* 9 = 90

10 \* 10 = 100

Thread for Multiplication Table of 10 is in Terminated state.

5 \* 1 = 5

5 \* 2 = 10

5 \* 3 = 15

5 \* 4 = 20

5 \* 5 = 25

5 \* 6 = 30

5 \* 7 = 35

5 \* 8 = 40

5 \* 9 = 45

5 \* 10 = 50

Thread for Multiplication Table of 5 is in Terminated state.

