S.No: 28	Exp. Name: ***Printing tables using synchronization and threads***	Date:2023-12-01

ID: 22K61A0587

Aim:

Define more than one thread to print tables using synchronization concept.

Note:

Add a sleep duration of 100

Source Code:

q17211/Main.java

```
package q17211;
import java.util.Scanner;
class TablePrinter implements Runnable {
   int b;
   TablePrinter(int b){
      this.b=b;
   }
   public void run()
   {
      for(int i=1;i<11;i++)
         {
            System.out.println(b+" * "+i+" = "+(b*i));
            try{
               Thread.sleep(100);
            }
            catch(Exception e){}
         }
   }
}
public class Main {
    public static void main(String args[])
   {
      System.out.print("Enter the number of tables:");
      Scanner sc=new Scanner(System.in);
      int a=sc.nextInt();
      for(int i=1;i<=a;i++)
         {
            Thread t=new Thread(new TablePrinter(i));
            t.start();
         }
   }



}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output

```
Enter the number of tables: 2
1 * 1 = 1
2 * 1 = 2
1 * 2 = 2
2 * 2 = 4
1 * 3 = 3
2 * 3 = 6
1 * 4 = 4
2 * 4 = 8
1 * 5 = 5
2 * 5 = 10
1 * 6 = 6
2 * 6 = 12
1 * 7 = 7
2 * 7 = 14
1 * 8 = 8
2 * 8 = 16
1 * 9 = 9
2 * 9 = 18
1 * 10 = 10
2 * 10 = 20
```

Test Case - 2

User Output

```
Enter the number of tables: 3
3 * 1 = 3
2 * 1 = 2
1 * 1 = 1
3 * 2 = 6
2 * 2 = 4
1 * 2 = 2
3 * 3 = 9
2 * 3 = 6
1 * 3 = 3
3 * 4 = 12
2 * 4 = 8
1 * 4 = 4
3 * 5 = 15
2 * 5 = 10
1 * 5 = 5
3 * 6 = 18
2 * 6 = 12
1 * 6 = 6
3 * 7 = 21
2 * 7 = 14
1 * 7 = 7
2 * 8 = 16
1 * 8 = 8
3 * 8 = 24
2 * 9 = 18
```

1 * 9 = 9
3 * 9 = 27
2 * 10 = 20
1 * 10 = 10
3 * 10 = 30