

LAB PROGRAM:

Create a class Table including a method printable which prints multiplication table of a given value. Create two threads which prints multiplication table of 5 and 100 by calling the same function on same object. Test the threads.

```
→ import java.util.Scanner;  
  
public class Table {  
    public static void main (String args[]) {  
        Cal c = new Cal ();  
        Scanner sc = new Scanner (System.in);  
        System.out.println ("Input the number of elements");  
        int n = sc.nextInt ();  
        Table obj = new Table (n, c, 5);  
        Table obj1 = new Table (n, c, 100);  
        try {  
            obj.t.join ();  
            obj1.t.join ();  
        } catch (Exception e) {  
            System.out.println ("exception occurred.");  
        }  
        System.out.println ("thank you");  
    }  
}  
  
class Table implements Runnable {  
    int n, table;  
    Thread t;  
    Cal tar;  
    Table (int n, Cal c, int tab) {  
        tabl = tab;
```

```
tar = c  
this.n = n;  
t = new Thread (th); t.start();  
}  
  
public void run() {  
    synchronized (tar) {  
        tar.cals(n, tabl);  
    }  
}  
}  
}  
  
class cal {  
    void cals (int n, int ta) {  
        for (int i=1; i <=n; i++) {  
            System.out.println (ta + " x " + i + " = " + (ta*i));  
        }  
    }  
}
```

## tables - Notepad

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```
import java.util.Scanner;

public class tables {
    public static void main(String args[]) {
        cal c = new cal();
        Scanner sc = new Scanner(System.in);
        System.out.println("input the number of elements");
        int n = sc.nextInt();
        table obj = new table(n,c,5);
        table obj1 = new table(n,c,100);
        try {
            obj.t.join();
            obj1.t.join();
        }catch(Exception e) {
            System.out.println("exception occurred");
        }
        System.out.println("thank you");
    }
}

class table implements Runnable {
    int n,tabl;
    Thread t;
    cal tar;
    table(int n,cal c,int tab){
        tabl =tab;
        tar=c;
        this.n=n;
        t=new Thread(this);t.start();
    }
    public void run() {
        synchronized(tar) {
            tar.cals(n, tabl);
        }
    }
}
class cal{
```



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```
}
```

```
public void run() {
```

```
    synchronized(tar) {
```

```
        tar.cals(n, tabl);
```

```
}
```

```
}
```

```
}
```

```
void cals(int n, int ta) {
```

```
    for(int i=1; i<=n; i++) {
```

```
        System.out.println(ta+ " x " +i+ " = "+(ta*i));
```

```
}
```

```
}
```

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```
PS C:\Users\dashr\OneDrive\Desktop\Roshni 00J Lab> javac tables.java
PS C:\Users\dashr\OneDrive\Desktop\Roshni 00J Lab> java tables
input the number of elements
4
5
5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
5 x 4 = 20
100 x 1 = 100
100 x 2 = 200
100 x 3 = 300
100 x 4 = 400
thank you
PS C:\Users\dashr\OneDrive\Desktop\Roshni 00J Lab>
```