```java

//Tables of 5 and 100 using threads
class Table{
    void print(int n){
        try{
            for(int i=1;i<=10;i++){
                System.out.println(n+" * "+i+" = "+(n*i));
                Thread.sleep(100);
            }
            Thread.sleep(1000);
            System.out.println();
        }
        catch(Exception e){
            System.out.println(e);
        }
    }
}
class thread1 implements Runnable{
    Table tab;
    Thread t;
    thread1(Table th){
        tab=th;
        t = new Thread(this);
        t.start();
    }
    public void run(){
        synchronized(tab){
            tab.print(5);
        }
    }
}
class thread2 implements Runnable{
    Table tab;
    Thread t;
    thread2(Table th){
        tab=th;
```

```
1707            tab=th;
1708            t = new Thread(this);
1709            t.start();
1710        }
1711        public void run(){
1712            synchronized(tab){
1713                tab.print(100);
1714            }
1715        }
1716    }
1717    class Series{
1718        public static void main(String args[])  {
1719            Table tab = new Table();
1720            thread1 t1 = new thread1(tab);
1721            thread2 t2 = new thread2(tab);
1722            try{
1723                t1.t.join();
1724                t2.t.join();
1725            }
1726            catch(Exception e){
1727                System.out.println(e);
1728            }
1729        }
1730    }
1731
```

C:\Windows\System32\cmd.exe

```
C:\Users\Shreshtha Aggarwal\Desktop\java>javac Series.java

C:\Users\Shreshtha Aggarwal\Desktop\java>java Series
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

100 * 1 = 100
100 * 2 = 200
100 * 3 = 300
100 * 4 = 400
100 * 5 = 500
100 * 6 = 600
100 * 7 = 700
100 * 8 = 800
100 * 9 = 900
100 * 10 = 1000


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```

```java
//Mechanic and Owner
class Car{
    int n;
    boolean value = false;
    synchronized int get(){
        while(!value){
            try{
                wait();
            }
            catch(InterruptedException e){
                System.out.println("InterruptedException caught");
            }
        }
        System.out.println("Repair request got : " + n);
        value = false;
        notify();
        return n;
    }
    synchronized void put(int n){
        while(value)
            try{
                wait();
            }
            catch(InterruptedException e){
                System.out.println("InterruptedException caught");
            }
        this.n = n;
        value = true;
        System.out.println("Repair request put : " + n);
        notify();
        try{
            Thread.sleep(1000);
        }
        catch(InterruptedException e){
                System.out.println("InterruptedException caught");
        }
    }
}
```

```
1770 class Mechanic implements Runnable{
1771     Car c;
1772     Mechanic(Car c) {
1773         this.c = c;
1774         new Thread(this,"Mechanic").start();
1775     }
1776     public void run(){
1777         int i = 0;
1778         while(true){
1779             c.put(i++);
1780         }
1781     }
1782 }
1783 class Owner implements Runnable{
1784     Car c;
1785     Owner(Car c){
1786         this.c = c;
1787         new Thread(this, "Owner").start();
1788     }
1789     public void run(){
1790         while(true){
1791             c.get();
1792         }
1793     }
1794 }
1795 class Series{
1796     public static void main(String[] args){
1797         Car c = new Car();
1798         new Mechanic(c);
1799         new Owner(c);
1800     }
1801 }
1802
```

C:\Windows\System32\cmd.exe

```
C:\Users\Shreshtha Aggarwal\Desktop\java>javac Series.java

C:\Users\Shreshtha Aggarwal\Desktop\java>java Series
Repair request put : 0
Repair request got : 0
Repair request put : 1
Repair request got : 1
Repair request put : 2
Repair request got : 2
Repair request put : 3
Repair request got : 3
Repair request put : 4
Repair request got : 4
Repair request put : 5
Repair request got : 5
Repair request put : 6
Repair request got : 6
Repair request put : 7
Repair request got : 7
Repair request put : 8
Repair request got : 8
Repair request put : 9

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```