13a.Create two threads such that one thread will print even number and another will print odd number in an ordered fashion

**Code:-**

**public class EvenOddPrinter {**

**private static int number = 1;**

**private static final int MAX\_NUMBER = 10;**

**private static final Object lock = new Object();**

**public static void main(String[] args) {**

**Thread evenThread = new Thread(EvenOddPrinter::printEven);**

**Thread oddThread = new Thread(EvenOddPrinter::printOdd);**

**evenThread.start();**

**oddThread.start();**

**}**

**public static void printEven() {**

**while (number <= MAX\_NUMBER) {**

**synchronized (lock) {**

**if (number % 2 == 0) {**

**System.out.println("Even: " + number);**

**number++;**

**lock.notify();**

**} else {**

**try {**

**lock.wait();**

**} catch (InterruptedException e) {**

**Thread.currentThread().interrupt();**

**}**

**}**

**}**

**}**

**}**

**public static void printOdd() {**

**while (number <= MAX\_NUMBER) {**

**synchronized (lock) {**

**if (number % 2 != 0) {**

**System.out.println("Odd: " + number);**

**number++;**

**lock.notify();**

**} else {**

**try {**

**lock.wait();**

**} catch (InterruptedException e) {**

**Thread.currentThread().interrupt();**

**}**

**}**

**}**

**}**

**}**

**}**