WAP in Java to implement thread synchronization

Code:

```
class Table {
  // synchronized method
  synchronized void printTable(int n) {
    for (int i = 1; i <= 5; i++) {
      System.out.println(n * i);
      try {
        Thread.sleep(400);
      } catch (Exception e) {
        System.out.println(e);
      }
    }
  }
}

class MyThread1 extends Thread {
  Table t;
  MyThread1(Table t) {
    this.t = t;
  }
  public void run() {
    t.printTable(5);
  }
}

class MyThread2 extends Thread {
  Table t;
  MyThread2(Table t) {
    this.t = t;
  }
  public void run() {
    t.printTable(100);
  }
}

public class TestSyn2 {
  public static void main(String args[]) {
    Table obj = new Table();// only one object
    MyThread1 t1 = new MyThread1(obj);
    MyThread2 t2 = new MyThread2(obj);
    t1.start();
    t2.start();
  }
}
```

Output:

```
PS C:\Users\Ajay kumar\Desktop\SEIT-B\PCPF\Lab\Exp_10> javac
TestSyn2.java
PS C:\Users\Ajay kumar\Desktop\SEIT-B\PCPF\Lab\Exp_10> java TestSyn2
5
10
15
20
25
100
200
300
400
500
PS C:\Users\Ajay kumar\Desktop\SEIT-B\PCPF\Lab\Exp_10>
```

WAP in Java to implement exception handling using try and catch blocks

Code:

```
import java.util.Scanner;
import java.lang.ArrayIndexOutOfBoundsException;

public class Exception {
  public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);

    System.out.print("Enter the length of array: ");
    int len = sc.nextInt();

    int[] arr = new int[len];

    System.out.println("Enter the elements: ");
    for (int i = 0; i < len; i++) {
      arr[i] = sc.nextInt();
    }

    System.out.println("Array: ");
    for (int i = 0; i < len; i++) {
      System.out.print(arr[i] + " ");
    }
    System.out.println();

    int choice = 1;
    int peek;
    do {
      System.out.println();
      System.out.print("Peek at index: ");
      peek = sc.nextInt();

      try {
        System.out.println("Arr[" + peek + "] = " + arr[peek]);
      } catch (ArrayIndexOutOfBoundsException e) {
        System.out.println("Array Index Out of Bound");
      }

      System.out.print("Enter 1 to continue: ");
      choice = sc.nextInt();
    } while (choice == 1);
  }
}
```

Output:

```
$ Ajay kumar\Desktop\SEIT-B\PCPF\Lab\Exp_10> javac Exception.java
$ Ajay kumar\Desktop\SEIT-B\PCPF\Lab\Exp_10> java Exception

Enter the length of array: 4
Enter the elements:
1
2
3
4
Array:
1 2 3 4

Peek at index: 3
Arr[3] = 4
Enter 1 to continue: 1

Peek at index: 4
Array Index Out of Bound
Enter 1 to continue: 0

$ Ajay kumar\Desktop\SEIT-B\PCPF\Lab\Exp_10>
```