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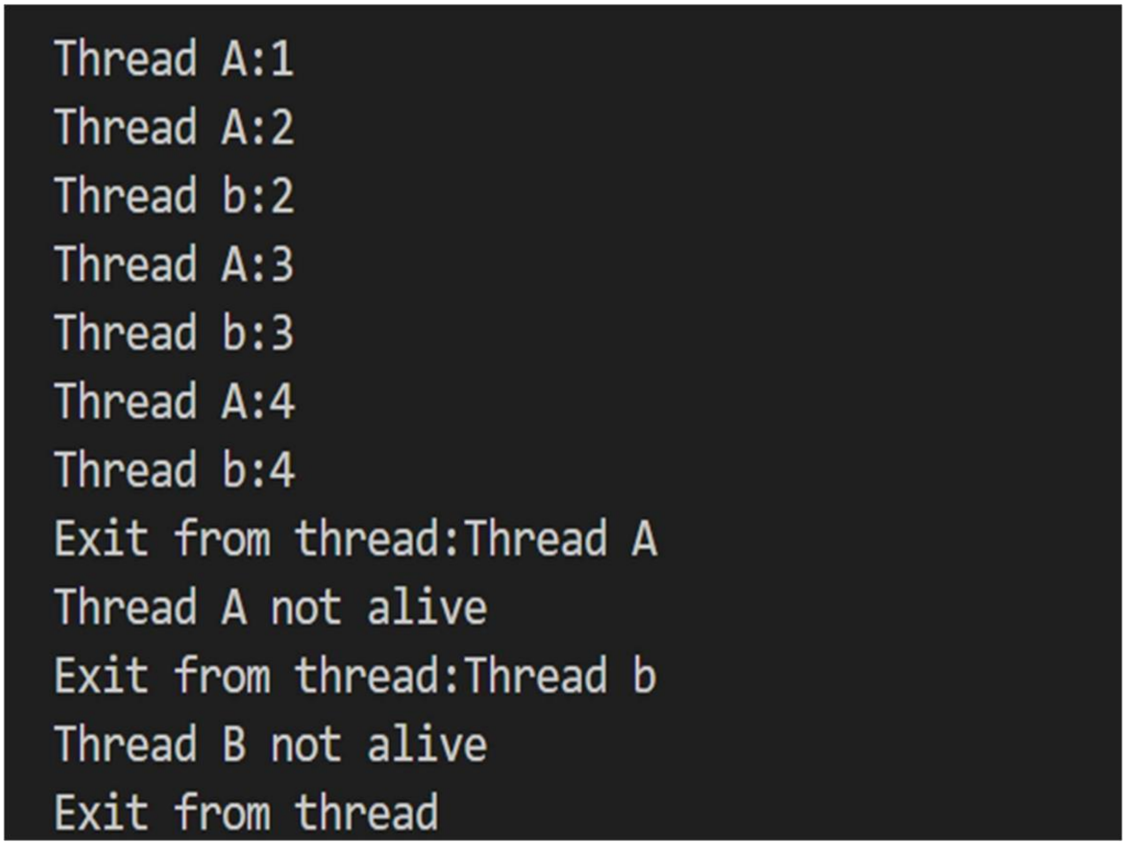
Batch – A

Assignment 8 - Write a program demonstarting Multi threading in Java :

getName(), getPriority(),setPriority(), join(),isAlive(), synchronized method must be utilized.

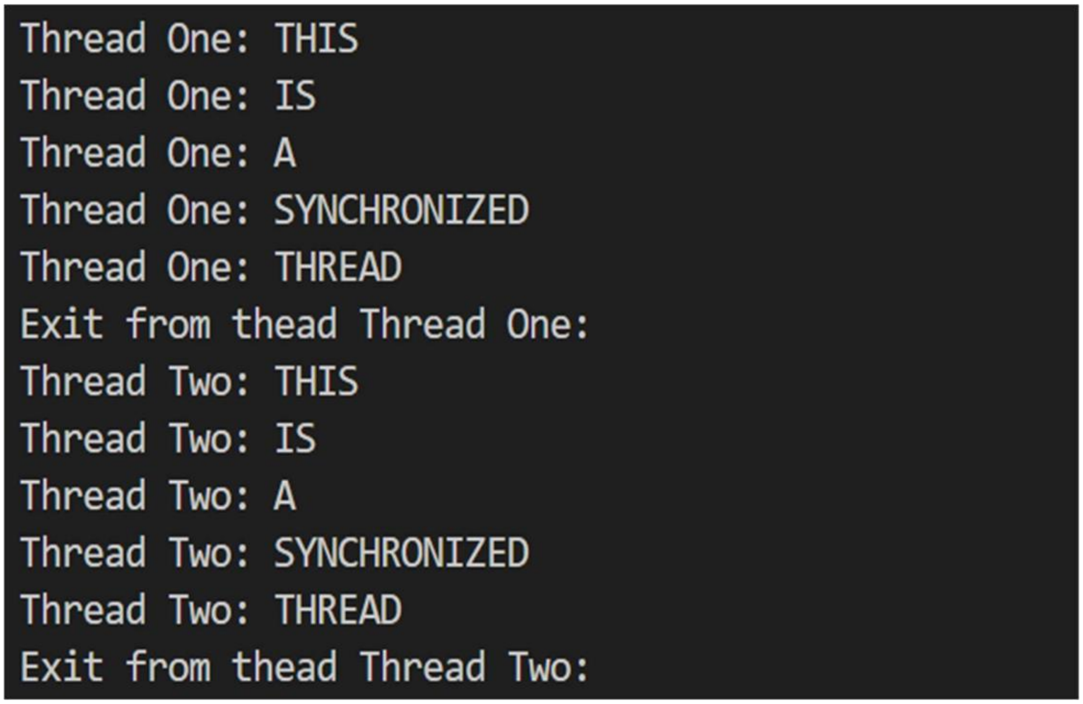
```
class Mythread extends Thread {
    int value;
    public Mythread(String str) {
        super(str);
        value = 0;
        start();
    }

    public void run() {
        try {
            while (value < 5) {
                System.out.println(getName() + ":" + (value++));
                Thread.sleep(250);
            }
        } catch (InterruptedException e) {
        }
        System.out.println("Exit from thread:" + getName());
    }
}
```

```
public class Multithreading {

public static void main(String[] args) {
    Mythread oba = new Mythread("Thread A");
    Mythread obb = new Mythread("Thread b");
    try {
      oba.setPriority(10);
      System.out.println("Priority of thread A and B " + oba.getPriority() + " " +
obb.getPriority());
      // obb has norm priority i.e. 5
      oba.join();
      if  (!oba.isAlive())
        System.out.println("Thread A not alive");
      obb.join();
      if (!obb.isAlive())
        System.out.println("Thread B not alive");
    } catch (InterruptedException e) {
    }
    System.out.println("Exit from thread");
  }
}
```



```
Thread A:1
Thread A:2
Thread b:2
Thread A:3
Thread b:3
Thread A:4
Thread b:4
Exit from thread:Thread A
Thread A not alive
Exit from thread:Thread b
Thread B not alive
Exit from thread
```

```
class Display{
    static String msg[] = { "THIS ", "IS ","A", "SYNCHRONIZED", "THREAD" };

    public synchronized void display(String name) {
        for (int i = 0; i <= 4; i++) {
            System.out.println(name + msg[i]);
            try {
                Thread.sleep(1000);
            } catch (InterruptedException e) {}
        }
        System.out.println("Exit from thead "+ name);
    }
}


class Mythread extends Thread {

    Display d;

    Mythread(Display d,String thread_name) {
        super(thread_name);
        this.d=d;
    }

    public void run() {
        d.display(this.getName());
    }
}


public class synchronization {
    public static void main(String[] args) {
        Display d =new Display();
        Mythread t1 = new Mythread(d,"Thread One: ");
        Mythread t2 = new Mythread(d,"Thread Two: ");
        t1.start();
        t2.start();
    }
}
```



```
Thread One: THIS
Thread One: IS
Thread One: A
Thread One: SYNCHRONIZED
Thread One: THREAD
Exit from thead Thread One:
Thread Two: THIS
Thread Two: IS
Thread Two: A
Thread Two: SYNCHRONIZED
Thread Two: THREAD
Exit from thead Thread Two:
```