Day 5: Assignment

Write two classes as follows

→ ThreadImpl1 should extend Thread class and override run method

In run method, run loop from 1 to 10000 and and add each integer with next to it.

In Test class with main() method, start the above method in a new Thread

→ ThreadImpl2 class should implement Runnable interface

Again override run() method and add values from 1 to 10000 using loop

In Test class, start above method in a new thread

Extension of above problem statement (Version 2)

→ Now try to synchronize the methods in above defined two classes (impl by extending Thread and implementing Runnable)

→ Try to run the two threads in parallel and observe the output

→ CAN YOU WRITE A SYNCHRONIZED PROGRAM WITH WAIT AND NOTIFY METHODS?

Interview Question on Threads (Try to implement with code)

1. WHAT IS THE NEED FOR THREADS IN JAVA?

2. HOW DO YOU CREATE A THREAD?

3. HOW DO YOU CREATE A THREAD BY EXTENDING THREAD CLASS?

4. HOW DO YOU CREATE A THREAD BY IMPLEMENTING RUNNABLE INTERFACE?

5. HOW DO YOU RUN A THREAD IN JAVA?

6. WHAT ARE THE DIFFERENT STATES OF A THREAD?

7. WHAT IS PRIORITY OF A THREAD? HOW DO YOU CHANGE THE PRIORITY OF A THREAD?

8. WHAT IS EXECUTORSERVICE?

9. CAN YOU GIVE AN EXAMPLE FOR EXECUTORSERVICE?

10. EXPLAIN DIFFERENT WAYS OF CREATING EXECUTOR SERVICES

11. HOW DO YOU CHECK WHETHER AN EXECUTIONSERVICE TASK EXECUTED SUCCESSFULLY?

12. WHAT IS CALLABLE? HOW DO YOU EXECUTE A CALLABLE FROM EXECUTIONSERVICE?

13. WHAT IS SYNCHRONIZATION OF THREADS?

14. CAN YOU GIVE AN EXAMPLE OF A SYNCHRONIZED BLOCK?

15. CAN A STATIC METHOD BE SYNCHRONIZED?

16. WHAT IS THE USE OF JOIN METHOD IN THREADS?

17. DESCRIBE A FEW OTHER IMPORTANT METHODS IN THREADS?

18. WHAT IS A DEADLOCK?

19. WHAT ARE THE IMPORTANT METHODS IN JAVA FOR INTER-THREAD COMMUNICATION?

20. WHAT IS THE USE OF WAIT METHOD?

21. WHAT IS THE USE OF NOTIFY METHOD?

22. WHAT IS THE USE OF NOTIFYALL METHOD?