Multi Threading in Java

- Multithreading in General

- Need for Multithreading

- Multithreading in Java

    - By Thread Class

    - By Runnable Interface

- Stop Watch Application

What is Multi Threading...??

Thread: Smallest instance of a running program

Multiple Instances Running: Multiple Threads are running: Multi Threading

In Java Programmer can create threads and manage them

Two more terms: Multiprocessing and Multitasking

Why Multi Threading…??

- CPU Utilisation

- Some tasks are to be run independent of flow of program

- Parallel Computing

Multi Threading In Java

Thread Class

- Extend the class Thread

- Override run() method

- Create object of above class

- Start thread using this object only.

Runnable Interface

- Implement interface Runnable

- Implement Abstract function run()

- Create an object of this class

- Create an object of thread class by passing above object in constructor and name of thread.

- Start thread.

Stop Watch…!!

- Why need Multithreading…??
  We want timer to run independent of other functions of stop watch that too continuously

- How many threads needed…??
  One for main program to control timer, one to run timer: Total 2

- What all classes needed…??
  One for Timer(Separate Thread, One for GUI component, One Main class to start project

Lets build one for us