Threads

- Single sequential flow of the control within a program
- Java provides mechanism for multiple threads
- Every thread has run method
  - implements the thread's running behaviour
    - extend class *Thread* and override method *run*
    - implement interface *Runnable*

Providing a *run* method First way

- Extend class *Thread*
- Implement constructor(s)
  - explicitly call constructor of class *Thread*
- Implement method *void run()*
- To use your thread
  - create instance of your thread extension
  - call method *start()* of the instance
- Main thread concurrently will continue execution

Providing a *run* method Second way

- Implement interface *Runnable*
  - implement method *void Run()*
- Create method which will
  - create instance of class *Thread*
    - provide itself to the Thread's constructor
  - call method *start()* of the instance
- To use
  - call your developed method

Note

- Class could extend only one superclass
- Class could implement several interfaces
- If a class
  - implements method *run()*
  - extends some class (not Thread)

it will implement interface *Runnable*

Life cycle of Thread

- Created
- Runnable
  - start was called
- Not runnable
  - invoke method sleep
  - invoke method wait
  - thread is blocking by I/O
- Stopped or dead