JAVA MULTITHREADING CORE CONCEPTS

CORE CONCEPTS

THREAD SAFETY

INTER THREAD COMMUNICATION

CONCURRENT COLLECTIONS
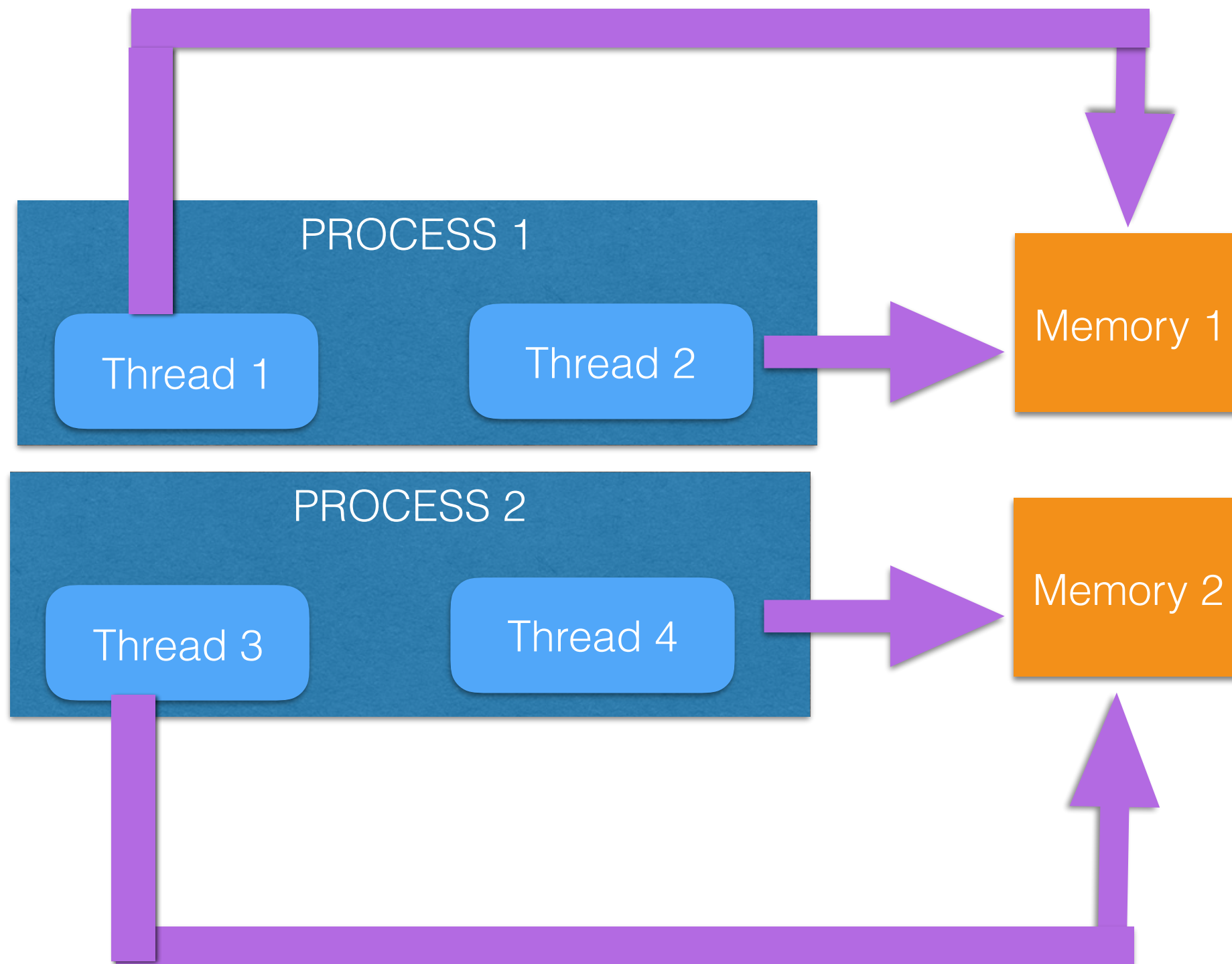
1. Thread basics

2. Thread creation

3. Executor framework

4. Questions and coding assignment

https://github.com/kilovum/multithreading.git

Thread Basics

- A operating system runs many process.

- A process is independently executing programs in operating system. Operating system allocates resources like memory, security credentials.

- A process contains many threads.

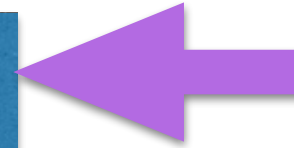- A thread is sequence of programmed instructions which can be managed independently.

PROCESS 1

Thread 1　　　Thread 2

PROCESS 2

Thread 3　　　Thread 4

Memory 1

Memory 2

Thread 1

1)Read the old ticket no.

2)Compute the new ticket no .
by incrementing 1.
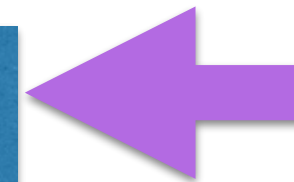
3)Insert into database.

Thread 2

1)Read the old ticket no.

2)Compute the new ticket no .
by incrementing 1.

3)Insert into database.

Benefits of multithreading

- Utilisation of multiple processors.

- Effective handling of asynchronous tasks.

- More responsive user interfaces.