Multithreading

- What is thread/multithreading
- Why multithreading
- Two examples of multithreading
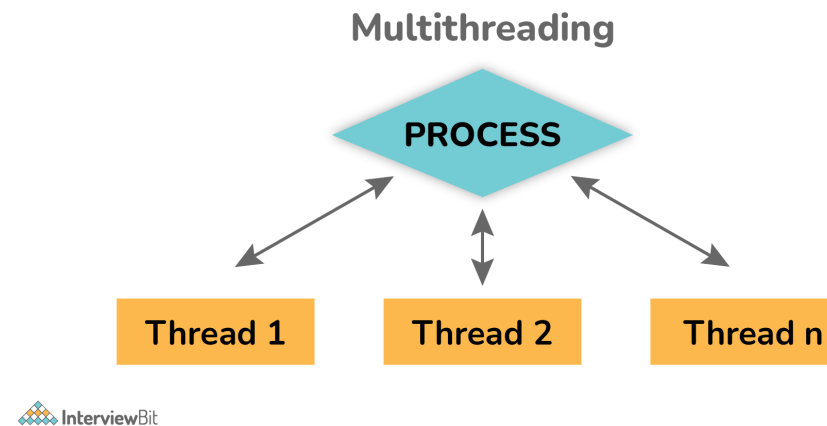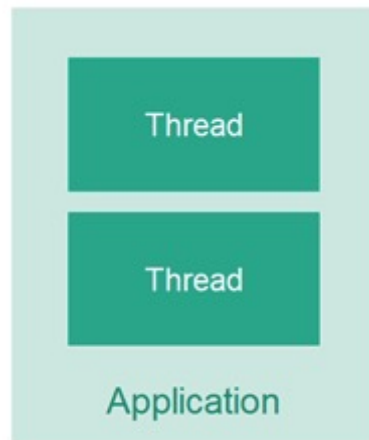
Multithreading – What is thread/multithreading

Thread

A thread is an independent unit of execution created within the context of a process (or application that is being executed)
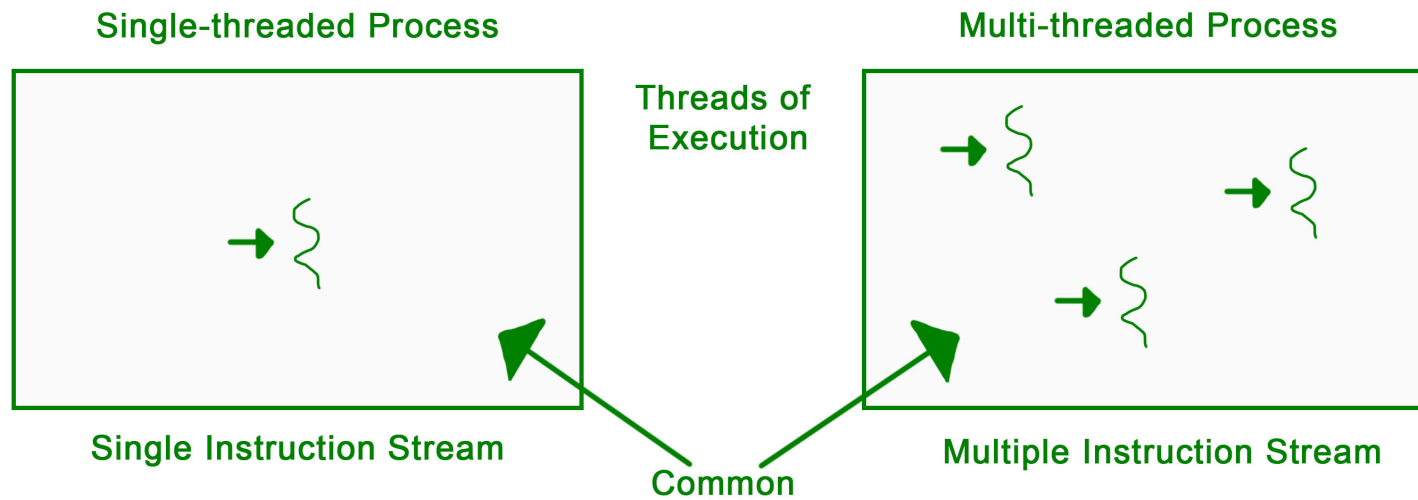
Multithreading

Multithreading means that you have multiple threads of execution inside the same application/process. One thread is like a separate execution of your application. Therefore, a multithread application is like an application/process that has multiple executions at the same time.

Multithreading – why multithreading

Allows you to do more than one thing at same time
- Browse online shopping website
- Chat with customer service
- Download files in the background

Single-threaded Process

Threads of Execution

Multi-threaded Process

Single Instruction Stream

Common

Multiple Instruction Stream

Single Thread and Multi Thread Process

Multithreading – Two examples of multithreading

Example 1

A multithreading example with threads running **different** code part

Multithreading – Two examples of multithreading

Example 2

A multithreading example with threads running **same** code part