The following scripts are written to demonstrate multiprocessing (Process-based parallelism) using Python.

Multiprocessing is a Python package that supports spawning processes using an API similar to the threading module. The multiprocessing package offers both local and remote concurrency, effectively side-stepping the Global Interpreter Lock by using subprocesses instead of threads. Due to this, the multiprocessing module allows the programmer to fully leverage multiple processors on a given machine. It runs on both Unix and Windows.

The multiprocessing module also introduces APIs which do not have analogs in the threading module. A prime example of this is the Pool object which offers a convenient means of parallelizing the execution of a function across multiple input values, distributing the input data across processes (data parallelism). The following examples demonstrate the common practice of defining such functions in a module so that child processes can successfully import that module.

Compiled by Vakindu Philliam.