Why thread pools are important?Thread pools improve performance by running multiple tasks simultaneously, and at the same time they prevent the time and memory overhead incur during thread creation.For example a web server instantiates thread pool at the start up so that it won't be spending time creating threads when client requests come in.As compared to creating thread per task, thread pools avoid running out of resources (processors, cores, memory etc) by avoiding unlimited thread creation at a time. After creating certain number of threads, they typically put the extra tasks in a waiting queue till a thread is available for a new task.

from Synergisticit Synergisticit to everyone:

types of thread pools??

from Synergisticit Synergisticit to everyone:

The Java Concurrency API supports the following types of thread pools:Cached thread pool: keeps a number of alive threads and creates new ones as needed.Fixed thread pool: limits the maximum number of concurrent threads. Additional tasks are waiting in a queue.Single-threaded pool: keeps only one thread executing one task at a time.Fork/Join pool: a special thread pool that uses the Fork/Join framework to take advantages of multiple processors to perform heavy work faster by breaking the work into smaller pieces recursively.That’s basically how thread pool works. In practice, thread pool is used widely in web servers where a thread pool is used to serve client’s requests. Thread pool is also used in database applications where a pool of threads maintaining open connections with the database.

