Networking assignment

Q1. Explain what deadlock is:

The operating sys. Can create multiple threads per process which all have access to global variables. When a thread is currently accessing a piece of memory, it will have it blocked/locked so that other threads cannot change what is stored in memory until it is finished. While other threads wait for the piece of memory to be available, it will take on a “Sleep State”. Deadlocking becomes an issue when two separate threads are both accessing different sections of memory but are waiting for the other thread to unlock the slot in memory. Eg. Thread 1 would have locked memory slot A whilst in use and waiting for memory slot B to become available. Thread 2 would have locked memory slot B whilst in use and waiting on memory slot A to be free. Both threads will be waiting for each other causing the CPU to halt processes.