Shared Pointer Exercises

std::shared_ptr

- Briefly describe std::shared_ptr

std::shared_ptr structure

- Briefly describe the structure of the shared_ptr class

Initialization

- Give two ways to create an initialized std::shared_ptr object
- Is there any reason to prefer one approach over the other?

shared_ptr copying

- Describe what happens when a shared_ptr object is created as a copy of another object

shared_ptr assignment

- Describe what happens when a shared_ptr object is assigned to another shared_ptr object

shared_ptr operations

- Write a simple program which creates and initializes shared_ptr object and performs some operations on it

shared_ptr and threads

- What issues arise when shared_ptr is used in a multithreaded program?

- What impact do these issues have on the performance of shared_ptr?

Shared Pointer Applications

- Give an example of a programming problem where shared_ptr could be useful