Weak Pointer Exercises

std::weak_ptr

- Briefly describe std::weak_ptr

weak_ptr to shared_ptr

- Give two ways in which a weak_ptr object can be converted to a shared_ptr object

- What happens if the weak_ptr's memory pointer is invalid?

weak_ptr to shared_ptr

- Write a program which creates a shared_ptr and a weak_ptr to it

- Convert the weak_ptr to a shared_ptr
  - When the original shared_ptr object is still valid
  - After the original shared_ptr object has been invalidated (this can be done by assigning it to nullptr)

- If it is safe to do so, print out the data in the resulting shared_ptr

Weak Pointer Applications

- Suggest an application for weak_ptr