

CS 300 Data Structures

Problem Set # 13 – C++ Smart Pointers

1. Write a program that defines a unique pointer to an integer value. Use the `std::make_unique` function to create a pointer.
2. Write a program that defines a class with two data members, a user-defined constructor, and one member function. Create a unique pointer to an object of a class. Use the smart pointer to access the member function.
3. Write a program that defines three shared pointers pointing at the same object of type `int`. Create the first pointer through an `std::make_shared` function. Create the remaining pointers by copying the first pointer. Access the pointed-to object through all the pointers.