Copy Elision Exercises

Copy Elision

- Explain briefly what is meant by copy elision

Function returning temporary object

- Write a simple class. Implement the copy constructor to display a message when called

- Write a function which returns a temporary object of the class by value

- Write a program which calls this function and uses its result to initialize an object of the class

Function returning temporary object

- How many times will the copy constructor be called?

- Run the program. Explain your observations

Return Value Optimization

- Explain what is meant by "Return Value Optimization" and "Named Return Value Optimization"

- Write a simple program which demonstrates Named Return Value Optimization

Copy Elision in C++17

- How have the copy elision rules changed in C++17?