

Modern C++ Overview

Part Four Exercises

Rvalue references and overloading

- Write a function which takes an int by const reference and an overloaded version which takes an int by rvalue reference
- The function displays its argument type
- Write a program which calls the overloaded function and passes
 - An int variable
 - The result of calling `std::move()` on an int variable
 - An integer literal
- Explain your results

Move-only types

- What is meant by a move-only type? Give an example of a move-only type
- Why are move-only types useful?

Pass by move

- What property must a class have in order that objects of that class can be passed by move?

Move operators

- Write down the prototypes of the move constructor and move assignment operator of a class called "myclass"

```
myclass(myclass&& other) noexcept;
```

```
// Move constructor
```

```
myclass& operator=(myclass&& other) noexcept;
```

```
// Move assignment operator
```