

Move Function Exercises

- Why is it not possible to create a variable which is an rvalue reference?
- When an rvalue reference is passed as a function argument, what is the value category of the argument inside the function?

- What is the purpose of `std::move()`?
- Why should it be called as `std::move()` and not just `move()`?
- If a variable is passed to `std::move()`, is it safe to use it again afterwards?

- Write a simple function `test()` which takes a string argument by reference and prints out “Lvalue reference”
- Write an overload of `test()` which takes a string argument by rvalue reference and prints out “Rvalue reference”
- What output would you expect from the main function in the following slide?
- Write a program to check your answers

```
int main() {  
    string&& r{ string {"Temp"} };  
    string l { string {"Perm"} };  
    string& lr{ l};  
    test(r);  
    test(std::move(r));  
    test (string{ {"Temp"} });  
    test(l);  
    test(lr);  
    test(std::move(l));  
}
```