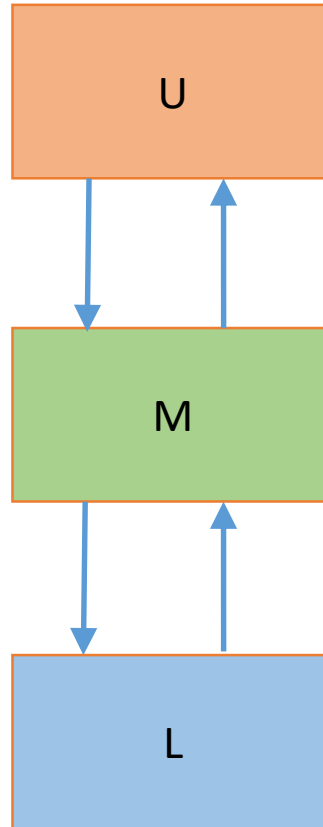


# Layered Architecture

There are up-calls and down-calls.

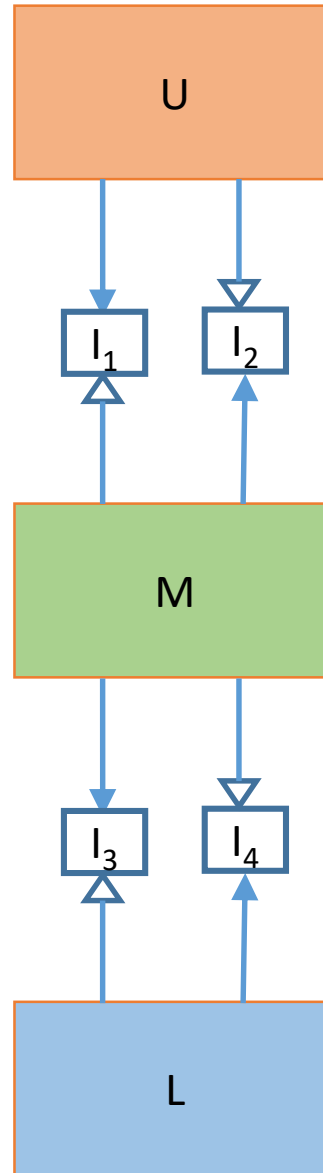


## Program to Interfaces

Allows any layer to be re-implemented in a different way.

Does this structure lead to upward dependencies in the layered structure?

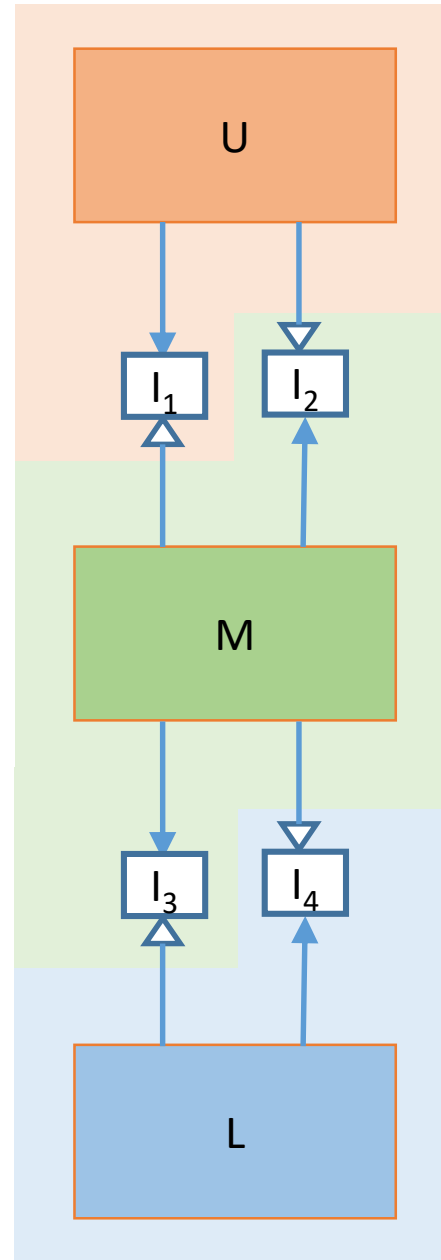
It depends on who “owns” the interfaces (i.e., which packages you put the interfaces in).



# Pure Dependency Inversion

Callers own the interfaces.

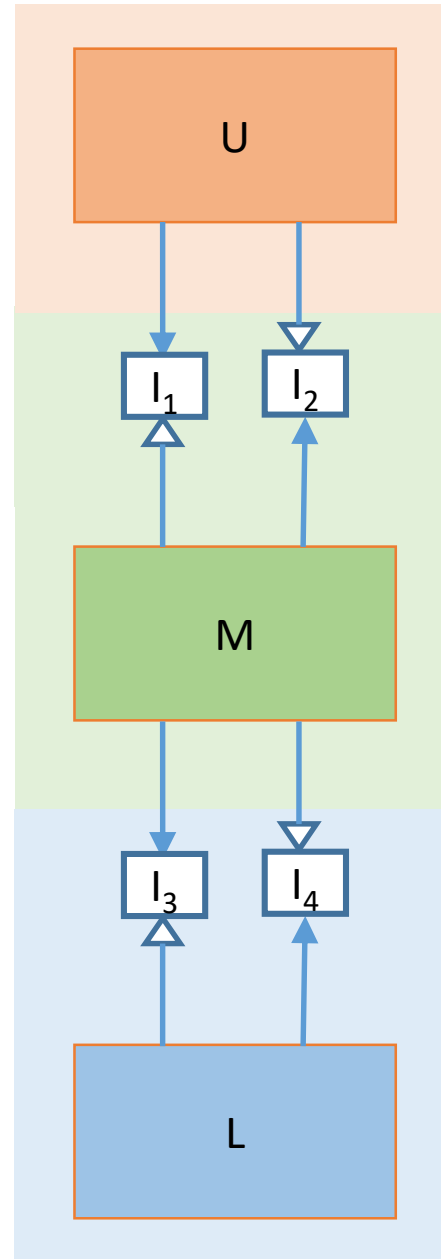
This results in upward dependencies,  
but maybe we can live with it.



# Pure Layering

Lower layer owns the interfaces.

All dependencies flow downward.



## Separate Interface Packages

Create separate packages to contain interfaces.

Enhances reusability of layers (makes it easier to take the interfaces you need to a new system).

