

EE 200 Lecture 14: Inheritance

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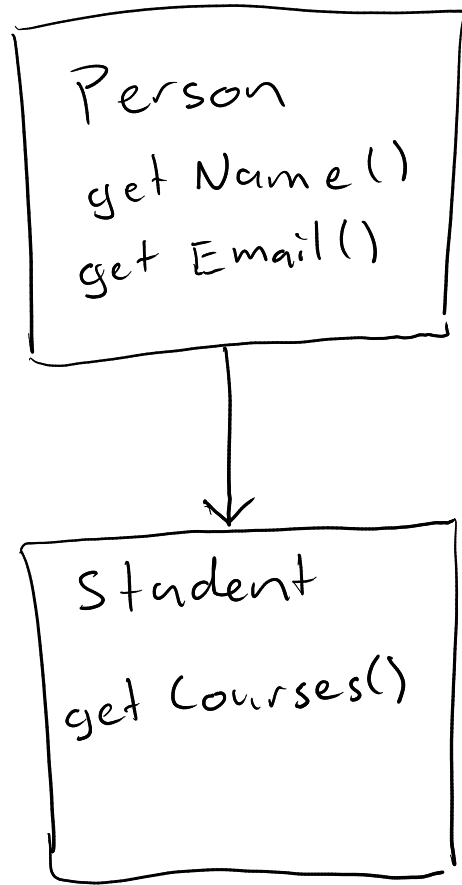
You should be able to:

Explain what a "inheritance" is

Explain what "polymorphism" is

Write a class which uses inheritance

What is an inheritance relationship?



student is a person

What is an inheritance relationship?

Rectangle

a square is a rectangle,
so if I can do x to a
rectangle, I should be able
to do it to a square.

What constitutes an inheritance relationship?

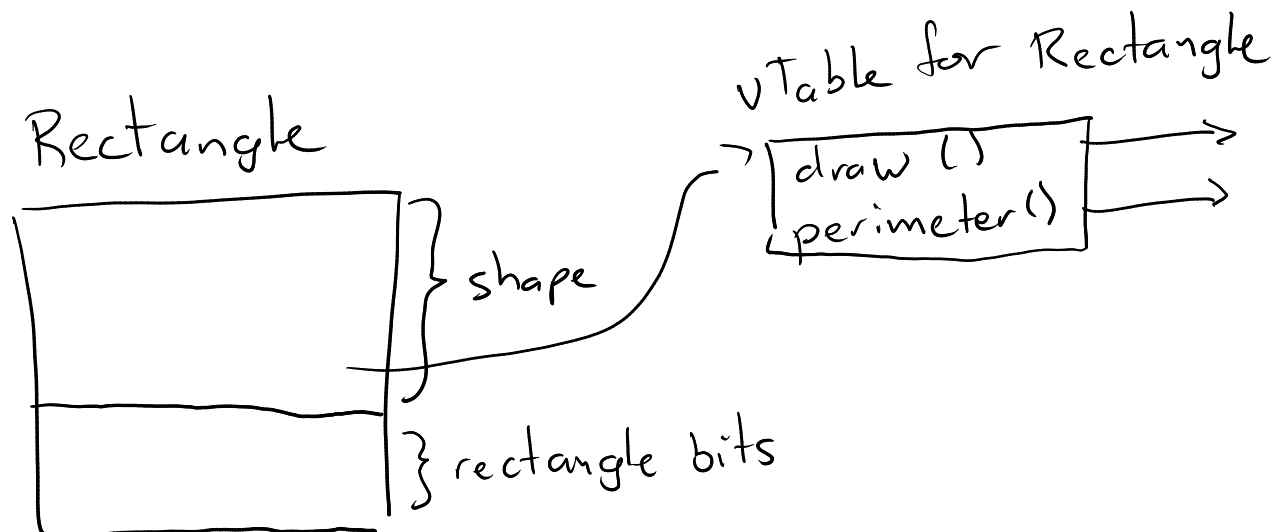
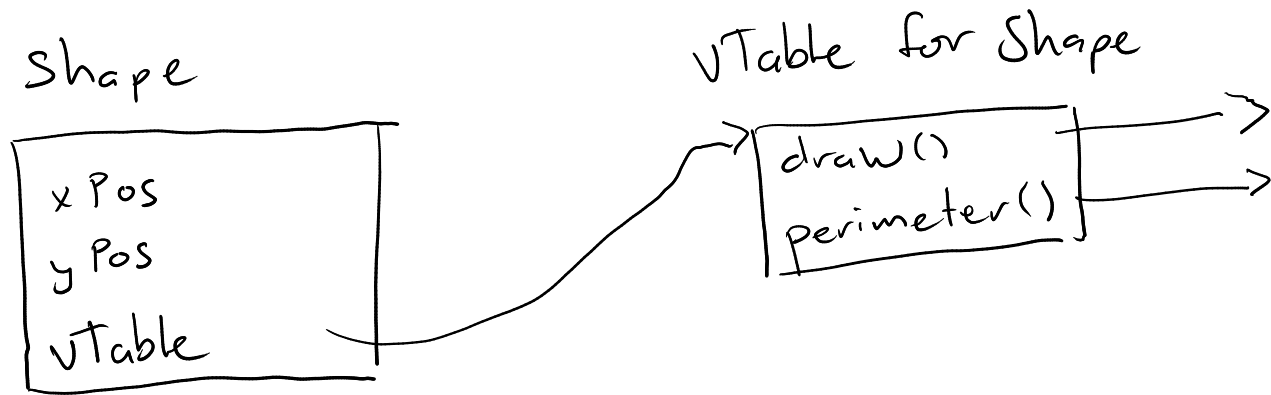
Liskov substitution principle (in my words):

If f is something you can do with S ,
then you should also be able to do it with any subtype of S .

A (semi-)practical example

shape_inheritance.cpp

Dynamic dispatch



Some real examples

<https://doc.qt.io/qt-5/qwidget.html#details>