## Builder Pattern

### Definition

The intent of the Builder design pattern is to separate the construction of a complex object from its representation. By doing so, the same construction process can create different representations.

### Meaning

This pattern allows you to construct a class that is a complex collection of smaller objects. The collection of smaller objects can get quite complicated for instance you may have a number of completely different physical items to add to a box, and you choose the box depending on the weight of the items. Each item and the box/envelope itself might have a cost associated with it.

This pattern allows you to do this.

In essence there is a product class, and the product class holds any number of smaller classes. For each set of smaller class, an interface is defined so they all have something in common.

The Builder class takes the smaller classes and builds the product class using them. The completed product class is then returned.

### Example

See documented code.