

For this question we used 3 patterns.

- Prototype
- Strategy
- Simple Factory

Prototype, used to clone the original object so as to restore the original list. Since sort method has a shallow copy of the original list, any modification on the list also affects the original list. Therefore prototype pattern helps us to solve this problem by cloning an object before doing any sort operations.

Strategy, used to encapsulate the sort algorithm so as to change the algorithm at run time.

Simple Factory, used to create an object by accepting the name of the object