Proxy Design Pattern Tutorial

The proxy design pattern is intended to be used to provide a placeholder object, which references an another (real) object. It provides the same interface as the real subject class while adding an extra layer of indirection by transferring information from a client object to the real subject object. It controls and manages object access. It also can improve efficiency and functionality. Use of a proxy can simply pass to the real object or can provide extra function. For example, caching when processes on the real object are resource intensive. Clients using a proxy would be similar to using the real object because both use the same interface. It is a structural design pattern which provides a way to define relationships between classes or objects. There are many ways proxies can stand in for objects.

Remote proxy provides a local object which references the real object at another location via network.

Virtual proxy

Protective proxy