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| **Proxy** |
| **Line** | **Code** |
| **1****2****3****4****5****6****7****8****9****10****11****12****13****14****15****16****17****18****19****20****21****22****23****24****25****26****27****28****29****30****31****32****33****34****35****36****37****38****39****40****41****42****43****44****45****46****47****48****49****50****51****52****53****54****55****56****57****58****58****59****60****61****62****63****64****65****66****67****68****69****70****71****72** | // Shows virtual and protection proxies**using** System;**namespace** Proxy { **class** SubjectAccessor { **public interface** ISubject { **string** Request(); } **private class** Subject : ISubject { **public string** Request() { **return** "Subject Request Choose left door\n"; } } **public class** CacheProxy : ISubject { Subject subject = **new** Subject(); **string** answer = **null**; **public string** Request() { **if** (answer == **null**) answer = subject.Request(); **return** "Cache Proxy: Call to " + answer; } } **public class** VirtualProxy : ISubject { Subject subject = **null**; **public string** Request() { //A Virtual Proxy creates the object only on its first method call **if** (subject == **null**) { Console.WriteLine("Subject inactive"); subject = **new** Subject(); } Console.WriteLine("Subject active"); **return** "Virtual Proxy: Call to " + subject.Request(); } } **public class** ProtectionProxy : ISubject { //An Authentication Proxy first asks for a password Subject subject = **null**; **string** password = "secret"; **public string** Authenticate(**string** supplied) { **if** (subject!=**null**) **return**  "Protection Proxy: You already allowed to access"; **if** (supplied!=password) **return** "Protection Proxy: No access"; subject = **new** Subject(); **return** "Protection Proxy: Authenticated"; } **public string** Request() { **if** (subject == **null**) **return** "Protection Proxy: Authenticate first"; **return** "Protection Proxy: Call to " + subject.Request(); } } } **class** Program : SubjectAccessor { **static void** Main(**string**[] args) { ISubject subject = **new** VirtualProxy(); Console.WriteLine(subject.Request()); Console.WriteLine(subject.Request()); Console.WriteLine("------------------------------------------------"); subject = **new** ProtectionProxy(); Console.WriteLine(subject.Request()); Console.WriteLine((subject **as** ProtectionProxy).Authenticate("Don't know")); Console.WriteLine((subject **as** ProtectionProxy).Authenticate("secret")); Console.WriteLine((subject **as** ProtectionProxy).Authenticate("secret")); Console.WriteLine(subject.Request()); Console.ReadKey(); } }} |