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| **TemplateMethodEx.java** |
| **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****59****60****61****62****63****64****65****66****67****68** | **using** System;**namespace** TemplateMethodSort { **class** Person { **public** String Name; **public int** Age; **public** Person(String name, **int** age) { Name = name; Age = age; } } **abstract class** Sorter { **abstract protected bool** Swap(Object lhs, Object rhs); **public void** Sort(Object[] items) { **int** n = items.Length; **for** (**int** x = 0; x < (n - 1); x++) { **for** (**int** y = 0; y < (n - 1 - x); y++) { **if** (Swap(items[y], items[y + 1])) { Object item = items[y]; items[y] = items[y + 1]; items[y + 1] = item; } } } } } **class** SortPersonByName : Sorter { **override protected bool** Swap(Object lhs, Object rhs) { **return** ((Person)lhs).Name.CompareTo(((Person)rhs).Name) > 0; } } **class** SortPersonByAge : Sorter { **override protected bool** Swap(Object lhs, Object rhs) { **return** ((Person)lhs).Age>((Person)rhs).Age; } } **class** Program { **static void** ShowAllPerson(Person[] ps) { **foreach** (Person person **in** ps) Console.WriteLine("Age:{0}\tName:{1}", person.Age, person.Name); Console.WriteLine(); } **static void** Main(**string**[] args) { Person[] ps ={ **new** Person("Ali", 25), **new** Person("Azizi", 22), **new** Person("Abdullah", 24), **new** Person("Ah Chong", 21), **new** Person("Aaron", 23), **new** Person("Ahmad", 22), }; ShowAllPerson(ps); (**new** SortPersonByName()).Sort(ps); ShowAllPerson(ps); (**new** SortPersonByAge()).Sort(ps); ShowAllPerson(ps); Console.ReadKey(); } }}/\* Try to sort the array of person by 1) Name in descending order 2) Age in descending order\*/ |