Filter:

**Other name (if any)**

placeholder

**What it does**

The Filter Design Pattern, also known as the Criteria Design Pattern, is a structural design pattern used by developers to filter objects based on different criteria. It provides two techniques for creating filters: filtering for the entire collection or filtering for a particular collection member.

**Where to use**

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**Steps**

1. Main Component Class: Create a class on which Criteria is to be applied.  
2. Criteria Interface: There will be only one abstract function which is called meetCriteria. It will return the list of the object on which the filter will be applied.  
3. Concrete Criteria Class: Create individual concrete criteria class for individual kind of filtering. These will implement the meetCriteria function. You may create two special kind of criteria which AndCriteria and OrCriteria. In both AndCriteria and OrCriteria it will take two criteria object. In And Criteria, in the meetCriteria function, first criteria will be applied to whole list of the main component object. And second criteria will be applied to the list of the main component object which we get after applying first criteria. In OrCriteria, in the meetCriteria function, first criteria and second criteria both will be applied to the whole list of the main component object. Then on the list based on second criteria we will loop through and check whether that single object exist in the list of first criteria. If does not exist then that object will be added to the list we get by applying first criteria. Finally we will return this list.  
4. Client Code: In this, create list of maij component class object. Then create object of a concrete criteria class object. Pass the list to the meetCriteria function of the concrete criteria class object. In the case of AndCriteria and OrCriteria pass other concrete criteria class object to their constructor.

**Special cases (if any)**

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**Advantages**

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**Disadvantages**

placeholder

**Code**

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**Difference with similar pattern**

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**Diagram**

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