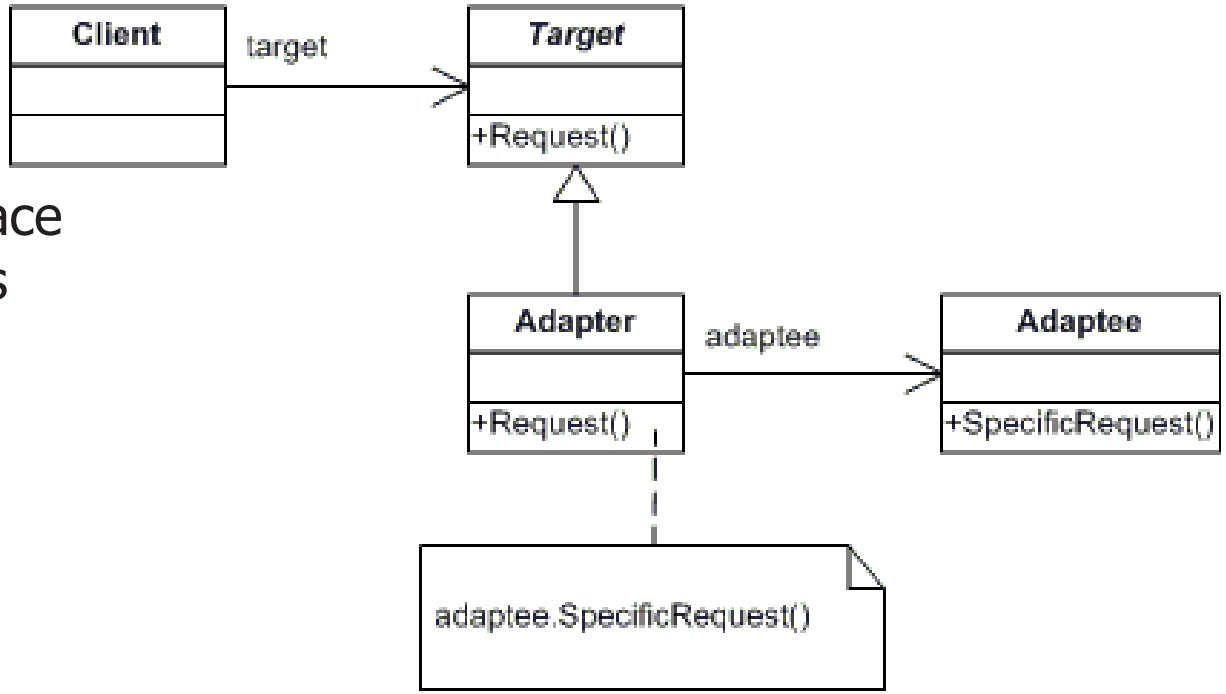
Overview of STL Adapters

STL Adapters

- STL adapters implement the *Adapter* design pattern
  - i.e., they convert one interface into another interface clients expect



See en.wikipedia.org/wiki/Adapter_pattern

STL Adapters

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  - Iterator adapters
    - e.g., `back_inserter()`, `front_inserter()`, `inserter()`, `reverse_iterator`, `istream_iterator`, & `ostream_iterator`

STL Adapters

- There are three main types of adapters in STL
  - Iterator adapters
  - Container adapters
    - e.g., `stack`, `queue`, & `priority_queue`

Category	Containers	Characteristics
Adapter	stack	First in, last out data structure.
	queue	First in, first out data structure.
	priority_ queue	Queue that maintains items in a sorted order based on a priority value.

These adapters narrow existing interfaces, e.g., a `stack` adapter for `deque`

STL Adapters

- There are three main types of adapters in STL
  - Iterator adapters
  - Container adapters
  - Function adapter
    - e.g., negators, binders, etc.