

1. What class should implement the Comparable interface?

- The Media class should implement the Comparable interface. This allows each instance of the Media class (such as CDs, DVDs, and Books) to be compared with one another based on a defined ordering.

2. How should you implement the compareTo() method to reflect the ordering that we want?

- The compareTo() method is responsible for defining how two Media objects are compared. You can implement this method by following these steps:
 - First, compare the title of the two Media objects. This is typically done alphabetically using String's compareTo() method.
 - If the titles are the same, compare by cost (in descending order).
 - Alternatively, you can define a secondary ordering rule in the compareTo() method, for example, comparing by cost first and then by title alphabetically if costs are the same.

3. Can we have two ordering rules of the item (by title then cost, and by cost then title) if we use this Comparable interface approach?

- No, we cannot have multiple ordering rules directly with Comparable. The compareTo() method can only define one ordering rule. If we need two sorting orders (e.g., by title then cost, or by cost then title), the Comparable approach won't be sufficient, and we would typically use a Comparator for this purpose. However, you could modify the compareTo() method to include logic for one of the orderings, and then use a Comparator for other orderings if needed.

4. Suppose the DVDs have a different ordering rule from the other media types, which is by title, then decreasing length, then cost. How would you modify your code to allow this?

- To handle DVDs with a different ordering rule, you would likely override the compareTo() method in a subclass of Media, such as DVD. In this subclass, you could implement the specific logic to compare by title, then by length (in decreasing order), and then by cost.

