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Topic Name: Java Collections

## **Brief Introduction:**

Sets, Maps, and Lists are all widely used interfaces in Java and they all do similar but very different functions in handling data. Depending on how you want to use the data each interface has pros and cons.

## Map

These are based on key value pairs and duplicates are accepted. Maps are great to use if you need to access data as a key value pair. Values may be duplicates but keys must always be unique.

### List

These provide an ordered and indexed collection and may contain duplicates of data. Two of the most popular lists are ArrayLists and LinkedLists. Lists are good to use if you will need to access by indexing and if you will be using the items frequently. If you need to have things ordered than this is another strength the lists have as they are of the ordered sort.

#### Set

These provide unordered data that must also be unique and nonrepeating. Some of the most popular sets are LinkedHashSets, TreeSets and HashSets. Sets are the way to go if you need very unique data and you can use TreeSets if it is important that they be sorted.

## **Teaching Description:**

None yet.

# **Teaching Examples:**

None yet.

## **Files to View:**

None yet.