

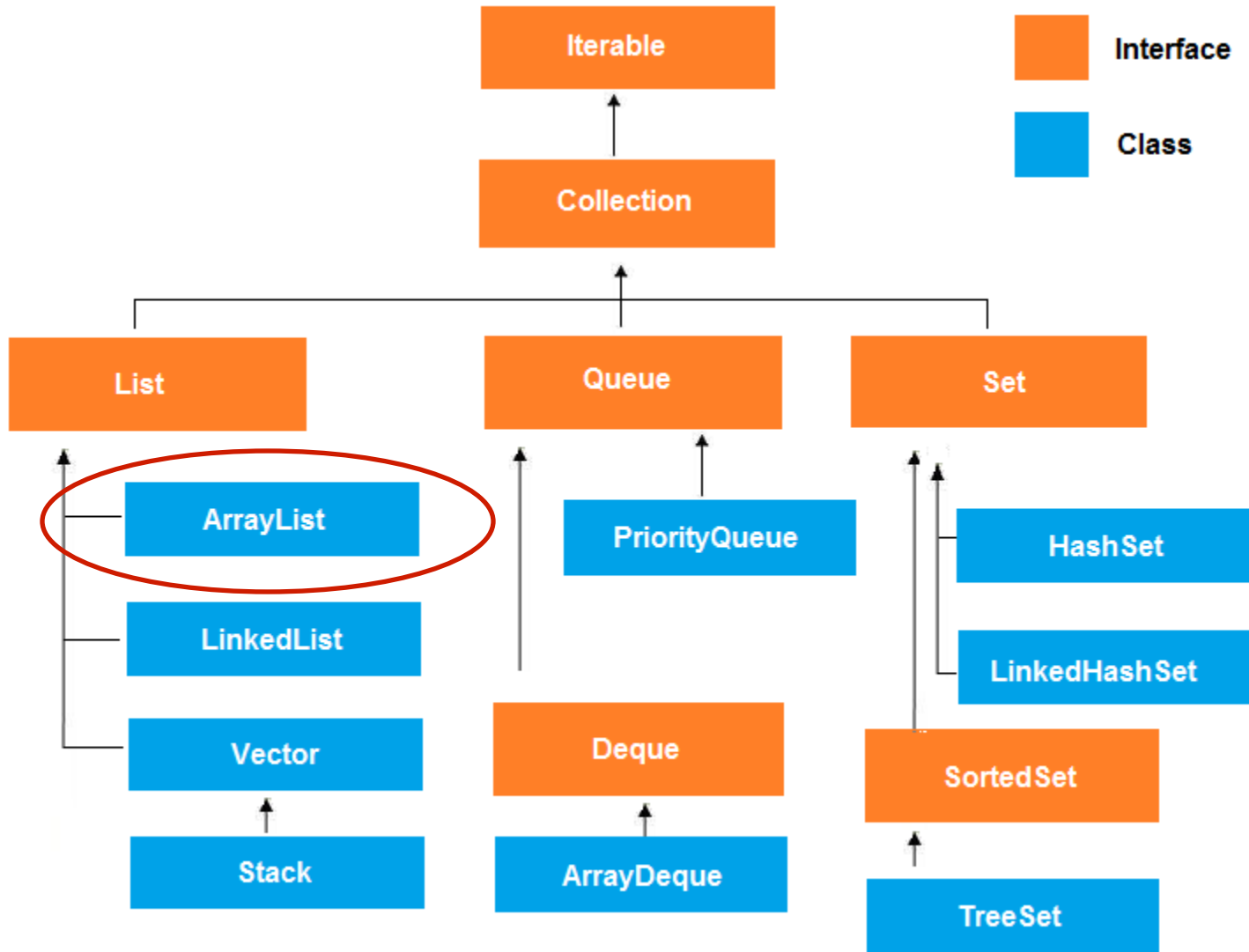
Java collections

(Java collections framework JCF)

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Data structures

- This would be part of 1st or 2nd year CS class on 'data structures'
- How do I assemble and organize my data based on my current needs
- Java collection framework has some of the basic ways to organize and collect data already implemented for you!
 - Some languages you need to implement these yourself
 - Regardless, you still need to understand how they work to use them properly



Array

- `String [] s = new String[5];`
- Fixed size
- Contains primitives or objects
- `.length`
- Must know location to add
 - `S[5] = "Joe"`
- **Can be multidimensional**
- **Loop with for**

ArrayList

- `ArrayList s = new ArrayList<String>();`
- **Dynamic size**
- Contains only objects
- `.Size()`
- Do not need to know current location
 - `S.add("Joe");`
- Always 1-dimensional
- Loop with iterator/for each

iteration

- Unknown size and location!
 - So how do we loop?
- `ArrayList s = new ArrayList<String>();`
- `For (Iterator<String> I = s.iterator; i.hasNext)`
 - `Print i.next();`
- This gets used a LOT, so we have shorthand for any collection
 - Called 'for each' loop
- `For (String iter : s)`
 - `Print s`