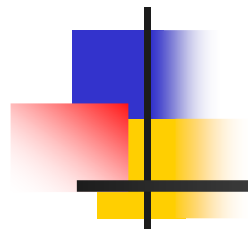


# Lecture-6

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- Collections - overview



# Collections - Overview

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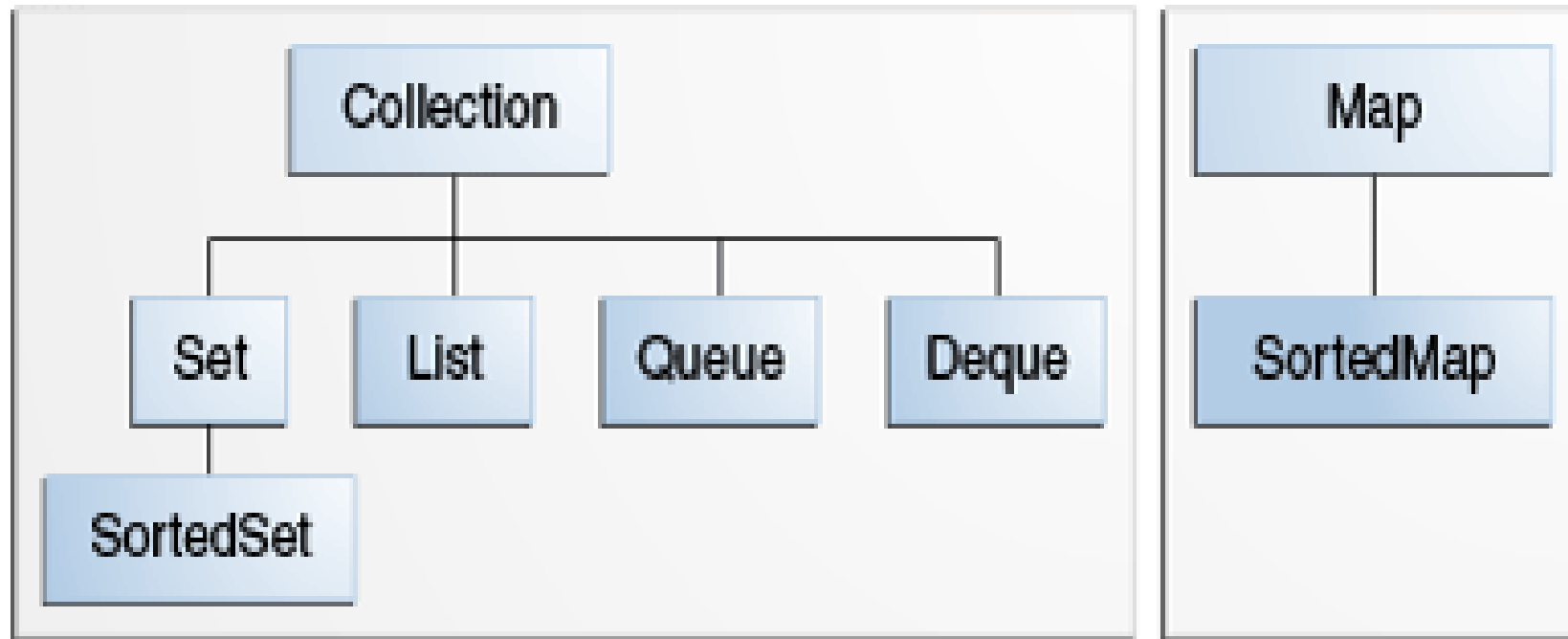


# Collections or containers

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- A set of built-in classes provided in Java
- Similar to C++ STL (Standard Template Libraries)
- Provide implementation for many important data structures
  - E.g., Arrays, Lists, Maps, Hash tables, etc.
  - Users can readily use various functions of these data types
    - Insert, delete, search, etc.

# Collections



Source: docs.oracle.com



# Collections - data structures

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- Set - implements the mathematical set abstractions.
  - Doesn't contain duplicate elements
- List - sequence of elements
  - Can contain duplicate elements
  - Supports random access, search, iteration, range-view, etc. operations.
  - List is an interface
    - ArrayList and LinkedList implement List.



# Collections ... contd.

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- Queue - a first in first out data structure
- Dequeue - a double ended queue.
- Map - maps keys to values