

A set is a collection of unique values, without any particular order. Sets are useful for storing unique elements and checking if a specific element is in the set. There are two main ways to define a set: listing the elements explicitly or defining a property that the elements must satisfy.

Common operations on sets include union and intersection. The union of two sets contains all elements that are in either set or in both sets. The intersection of two sets contains only the elements that are in both sets.

Sets can be implemented using different data structures, such as hash tables for unordered sets and AVL trees for ordered sets. Hash tables provide fast insertion and lookup times, while AVL trees maintain the elements in sorted order.