

Sets in Python { }

⇒ Sets are unordered collection of unique elements.

⇒ They are mutable, but can only contain immutable elements. {1, 2, 3} +

⇒ Useful for eliminating duplicate entries and set operations.

Set characteristic ÷

Unordered

No Duplicates allowed.

heterogeneous

Cannot contain mutable object (list, set, dict)

unindexed

$s1 = \{ 1, 2, 3, 3 \}$

$s2 = \text{set}('hello', 'python')$

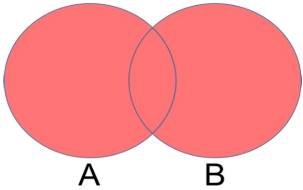
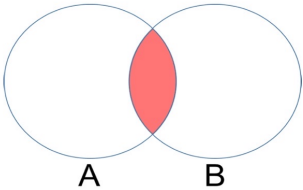
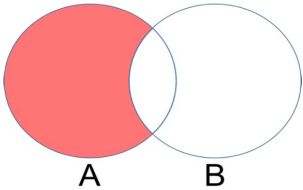
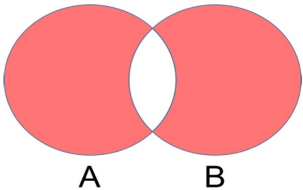
As sets are unordered, indexing & slicing is not possible.

We can add or remove items but cannot change them.

Immutable - we cannot add or delete.

Unchangeable - Cannot change already added, remove & addition is fine.

Set operations:

Set Operation	Venn Diagram	Interpretation
Union		$A \cup B$, is the set of all values that are a member of A , or B , or both.
Intersection		$A \cap B$, is the set of all values that are members of both A and B .
Difference		$A \setminus B$, is the set of all values of A that are not members of B
Symmetric Difference		$A \triangle B$, is the set of all values which are in one of the sets, but not both.

Further, sets are
a iterable and
not sequential.

eg. marbles in a
bag.