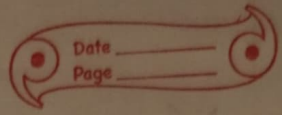


$\sim S.C = O(\ln)$

# SET



Set have only unique elements in it

★ Set is not a index Based Container

★ You can get output of set only either in ascending or Descending order.

## Syntax

(I) Set<int> s;

Insert  $\Rightarrow \{3, 9, 8, 5, 11\}$

Output  $\Rightarrow 3, 5, 8, 9, 11$ .

(II) Set<int, greater<int>> val;

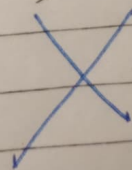
Insert  $\Rightarrow \{3, 9, 8, 5, 11\}$

Output  $\Rightarrow 11, 9, 8, 5, 3$

★ SET IS NOT A INDEX  
BASED CONTAINER

for (int i=0; i<s.size(); i++)

↳ WRONG



★ `set.empty()`

↳ Tells whether set is empty or not.

T.C

↳ Traversal  $\Rightarrow$  Set  $\Rightarrow O(n)$

↳ Insertion  $\Rightarrow O(\log n)$

↳ Deletion  $\Rightarrow O(\log n)$

↳ Insertion of array  $\Rightarrow O(n \log n)$   
(converting array to set)

## INSERTION IN SET

(i) `s.insert(5);`

(ii) want to insert vector into set

↳ `s.insert(vec.begin(),  
vec.end());`

# ITERATING IN SET

Date \_\_\_\_\_  
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```
① for (auto it = s.begin();  
    it != s.end(); ++it)  
{ cout << *it << " ";  
  }
```

```
② for (const auto& ele : s)  
{ cout << ele << endl;  
  }
```