# **ISTA's INTERN PREP - ARRAYS**

Arrays is one of the important and basic topics on which questions are frequently asked during coding tests. According to the language of your choice, you can refer to the references given below. A common set of practice questions is given at the end, do solve them.

## STL FOR C++:

Why STL?

STL has templates to simulate various data structures that will make it easier to approach and solve the problems.

(It is not essential to learn everything. Learn the important ones - **Vectors and Maps** and learn by solving questions.)

https://www.studytonight.com/cpp/stl/ https://youtu.be/RRVYpIET\_RU

#### **VECTORS:**

https://www.geeksforgeeks.org/vector-in-cpp-stl/

#### Practice:

https://practice.geeksforgeeks.org/problems/c-stl-set-1-vector/1

https://practice.geeksforgeeks.org/problems/sort-and-reverse-vector/1

https://practice.geeksforgeeks.org/problems/back-to-front/1

## SETS:

https://www.geeksforgeeks.org/set-in-cpp-stl/

## Practice:

https://www.hackerrank.com/challenges/cpp-sets/problem

https://practice.geeksforgeeks.org/problems/c-stl-set-6-set/1

https://practice.geeksforgeeks.org/problems/set-operations/1

#### MAPS:

https://www.geeksforgeeks.org/map-associative-containers-the-c-standard-template-library-stl/

#### Practice:

https://practice.geeksforgeeks.org/problems/c-stl-set-3-map/1

Do solve the questions at the last page!

## **MODULES FOR PYTHON:**

(The problems section has an entire set of exercise questions for the data structure. Solve them little by little. **Needn't solve everything this week**. Solve the basic ones and **start doing the practice problems given in the end**)

Data Structures To Learn For Arrays:

#### LISTS:

5. Data Structures — Python 3.11.2 documentation

Python Lists (w3schools.com)

Python Lists - GeeksforGeeks

## Problems:

Python List Exercise - GeeksforGeeks

Python List Exercise with Solution [10 Exercise Questions] (pynative.com)

#### **DICTIONARIES:**

Python Dictionaries (w3schools.com)

<u>5. Data Structures — Python 3.11.2 documentation</u>

Python Dictionary - GeeksforGeeks

#### Problems:

Python Dictionary Exercise - GeeksforGeeks

Python Dictionary Exercise with Solution [10 Exercise Questions] (pynative.com)

#### SETS:

Python Sets (w3schools.com)

Python Sets - GeeksforGeeks

5. Data Structures — Python 3.11.2 documentation

## Problems:

Python Set Exercise - GeeksforGeeks

Python Set Exercise with Solution [10 Exercise Questions] (pynative.com)

## **TUPLES:**

<u>5. Data Structures — Python 3.11.2 documentation</u>

Python Tuples (w3schools.com)

<u>Tuples in Python - GeeksforGeeks</u>

#### Problems:

Python Tuple Exercise - GeeksforGeeks

Python Tuple Exercise with solution [10 Exercise Questions] (pynative.com)

## ARRAYS QUESTIONS FOR PRACTICE:

- 1) <a href="https://leetcode.com/problems/majority-element/">https://leetcode.com/problems/majority-element/</a>
- 2) <a href="https://leetcode.com/problems/single-number/">https://leetcode.com/problems/single-number/</a>
- 3) <a href="https://leetcode.com/problems/concatenation-of-array/">https://leetcode.com/problems/concatenation-of-array/</a>
- 4) <a href="https://leetcode.com/problems/running-sum-of-1d-array/">https://leetcode.com/problems/running-sum-of-1d-array/</a>
- Two sum
   <a href="https://leetcode.com/problems/two-sum/">https://leetcode.com/problems/two-sum/</a>
  (Very important and frequently asked question)