# **Topic: Language Basics**

# **RESOURCES:**

#### Variable Types:

- → C++ <a href="https://www.scaler.com/topics/cpp/data-types-in-cpp/">https://www.scaler.com/topics/cpp/data-types-in-cpp/</a>
- → Java https://www.geeksforgeeks.org/data-types-in-java/

## **Time & Space Complexities:**

- → <a href="https://www.hackerearth.com/practice/basic-programming/complexity-analysis/time-and-space-complexity/tutorial/">https://www.hackerearth.com/practice/basic-programming/complexity-analysis/time-and-space-complexity/tutorial/</a>
- → https://codeforces.com/blog/entry/21344?f0a28=1

## **Operators, Loops & conditionals:**

- → Operators: <a href="https://www.programiz.com/cpp-programming/operators">https://www.programiz.com/cpp-programming/operators</a>
- → Conditionals: <a href="https://www.programiz.com/cpp-programming/if-else">https://www.programiz.com/cpp-programming/if-else</a>
- → Loops: <a href="https://www.geeksforgeeks.org/cpp-loops/">https://www.geeksforgeeks.org/cpp-loops/</a>
- → **Java**: Decision Making in Java (if, if-else, switch, break, continue, jump)

#### **Errors in Programming:**

→ <a href="https://www.geeksforgeeks.org/runtime-errors/">https://www.geeksforgeeks.org/runtime-errors/</a>

#### **STL (Standard Template Library):**

- → <a href="https://www.geeksforgeeks.org/the-c-standard-template-library-stl/">https://www.geeksforgeeks.org/the-c-standard-template-library-stl/</a>
- → <a href="https://cplusplus.com/reference/stl/">https://cplusplus.com/reference/stl/</a>
- → <a href="https://www.youtube.com/watch?v=RRVYpIET\_RU">https://www.youtube.com/watch?v=RRVYpIET\_RU</a>

#### Pattern Mostly Asked Questions:

→ Resource : <a href="https://youtu.be/ls00s5J8ycw">https://youtu.be/ls00s5J8ycw</a>

- → <a href="https://www.faceprep.in/c/pattern-programs-in-c/">https://www.faceprep.in/c/pattern-programs-in-c/</a>
- → <a href="https://www.geeksforgeeks.org/pattern-printing-question-asked-cgi-coding-round/?ref=rp">https://www.geeksforgeeks.org/pattern-printing-question-asked-cgi-coding-round/?ref=rp</a>

# **Questions:**

- 1. Time complexity mcq
- 2. Zoos | Practice Problems (hackerearth.com)
- 3. Reverse Digits
- 4. Armstrong Numbers
- 5. Write a program in C++ to find the sum of the series 1 +11 + 111 + 1111 + .. n terms.
- 6. Write a program in C++ to display the number in reverse order
- 7. Write a program in C++ to Check Whether a Number can be Express as Sum of Two Prime Numbers
- 8. Replace all 0's with 5
- 9. Prime Number
- 10. Closest Number
- 11. How Many X's?
- 12. Number of Common Factors LeetCode
- 13. Sum of Number and Its Reverse LeetCode

## **Extras**

Water and Jug Problem - LeetCode

Water Bottles - LeetCode

Nth Digit - LeetCode

<u>Calculate Money in Leetcode Bank - LeetCode</u>