
Programming Fundamentals

BS (CS) _Fall_2025

Lab_03 Tasks



Learning Objectives:

1. Pseudocode
2. Flowchart

Lab Tasks

Submission Instructions

1. Create a new folder with name *ROLLNO_SEC_LAB03* e.g. **i25XXXX_A_LAB03**
2. Move all of your files to this newly created directory and compress it into a **.zip file**.
3. Now you have to submit this zipped file on Google Classroom.
4. If you don't follow the above-mentioned submission instruction, you will be marked **zero**.
5. Plagiarism in the Lab Task will result in **zero** marks in the whole category.

Zero Tasks

Q1. Write a flowchart that inputs a 4-digit number (your roll number) from a user in a single integer variable. Add the second and last digit of the number and store the result in a new variable. Then display the result.

Example Input: 0576

Example Output: 11

Q2. Write a pseudocode that inputs a 2-digit number from the user in a single integer variable. Then, reverse the digits of the number, add the reversed number to the original number, and display the result

Example Input: 26

Example Output: 88

Explanation: $26 + 62$ (reverse of the number) = 88.

Lab Tasks

Q3. You are given **two integers** **a** and **b**. Write a flowchart to determine which number is greater, or if they are equal. Now swap their values and print the results.

Q4. You are given two integers **a** and **b**. Your task is to write the pseudocode o how many operations are required to make **a** and **b** equal under the following conditions:

1. If **a > b**, you can only perform the operation:
 $a = a - \text{count}$
2. If **a < b**, you can only perform the operation:
 $a = a + \text{count}$
3. If **a == b**, then no steps are required.

Q5. Write a pseudocode that take a number “**n**” from the user. Finnd the sum of the first **n** natural numbers.

Q6. You are given two integers **x** and **y**. Your task is to write the pseudocode whether the difference between them can be divided evenly by a third number **k**.