

**Data Structure Lab(25CS151)**

**Programs List**

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| 1.1 | Largest of Three Numbers |
| Problem Statement | Write an Algorithm to input three numbers and determine which number is the largest among them |
| Input Format | - |
| Output Format | - |
| Sample Input | - |
| Sample Output | - |

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| 1.2 | Leap Year |
| Problem Statement | Write an Algorithm to check whether the user input year is Leap year or not. |
| Input Format | - |
| Output Format | - |
| Sample Input | - |
| Sample Output | - |

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| 1.3 | Sum of digits |
| Problem Statement | Draw a Flow-Chart to display the sum of digits of 4 digits user input number. |
| Input Format | - |
| Output Format | - |
| Sample Input | - |
| Sample Output | - |

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| 2.1 | Swapping of two numbers |
| Problem Statement | Write a program to input two numbers and display the numbers after swapping their values. |
| Input Format | First line of input contains the two integers denoting the value of a and b. |
| Output Format | Display numbers after swapping in a single line. |
| Sample Input | 5 9 |
| Sample Output | 9 5 |

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| 2.2 | Salary Calculation |
| Problem Statement | Basic salary of an employee is input through the keyboard. The DA is 25% of the basic salary while the HRA is 15% of the basic salary. Provident Fund is deducted at the rate of 10% of the gross salary (BS+DA+HRA). Program to calculate the Net Salary. |
| Input Format | First line of input contain the integers denoting the value of Basic Salary. |
| Output Format | Display the Net Salary |
| Sample Input | 10000 |
| Sample Output | 14600 |

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| 2.3 | Sum of digits |
| Problem Statement | Write a program to input 4-digits number and display the sum of digits. |
| Input Format | First line of input contain the 4 digits integers |
| Output Format | Display the sum of digits |
| Sample Input | 4587 |
| Sample Output | 24 |

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| 3.1 | Largest of Three Numbers |  |
| Problem Statement | Write a program to input three numbers and determine which number is the largest among them.Using Ternary Operator |  |
| Input Format | First line of input contains the three integers denoting the value of a,b and c. |  |
| Output Format | Largest integer in a single line. |  |
| Sample Input | 5 9 2 |  |
| Sample Output | 9 |  |

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| 3.2 | Leap Year |
| Problem Statement | Write a program to input a year and check the input year is leap year or not using ternary Operator. |
| Input Format | First line contains the integer denotaing the year |
| Output Format | Display the result either Leap year or Not a Leap Year. |
| Sample Input | 2024 |
| Sample Output | Leap Year |

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| 3.3 | 4 digits Palindrome Number |
| Problem Statement | Write a program to input a 4 digits number and check the input number is palindrome or not using ternary Operator. |
| Input Format | First line contains the integer denotaing the 4 digits number |
| Output Format | Display the result either Yes or No. |
| Sample Input | 1331 |
| Sample Output | Yes |