Software Development Fundamentals Lab I [15B17CI171]
Assignment Sheet: Week 3 & 4 [21ˢᵗ Sep 03ʳᵈ Oct, 2020]
Lab A (Topic: Sequential Flow)

NOTE: All students have to submit the programs (code with running output) of this assignment in doc format to their respective faculty of Lab. Title of submission should be as Enroll No_Lab A/B_Week No.

1. WAP in C to understand the input and output process.

2. WAP in C to print sum of two numbers given by user.

3. WAP in C to print area of circle when radius of circle is inputted by user.

4. WAP in C to demonstrate the use of different arithmetic operators.

5. Write a Program to compute quotient and remainder when dividend and divisor are given.

6. Write a program to swap values of two variables using + and operators, with out using any extra variable.

7. Write a program to print three equivalent rational number of a given rational number.

8. Write a program to find the distance between two points P1 = (x1, y1) and P2 = (x2, y2) using the distance measure as $Distance_{xy} = (x1 - x2)^2 + (y1 - y2)^2$

Given a third point P3= (x3, y3) compute the distance of P3 towards P1 and P2.

9. Write a Program to print the Truth table of logical operators AND, OR and NOT.

10. Write a program to enter a three digit number and reverse it.

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Lab   B (Topic: Control Flow   if, if else)

NOTE: All students have to submit the programs (code with running output) of this assignment in doc format to their respective faculty of Lab. Title of submission should be as Enroll No_Lab A/B_Week No.

1. WAP in C to check greater value between two values inputted by user

2. WAP in C to check whether given number is +ve or ve.

3. WAP in C to check whether given number is even or odd.

4.   Write a program to check whether the input character is Vowel or consonant?

5.   Write a program in C, take student age as an input. If his age is greater than or equal to 18 then show the message You are eligible for voting otherwise show the message You are not eligible for voting .

6. Write a program to find out if the year entered is a leap year or not.

7. Write a program to find the largest number among the given three numbers.

8. WAP that will take the marks of a student in five subjects, Computer, Social Science, Maths, English and Hindi. It will calculate the percentage and print the grade sheet according to given conditions:

If percentage >= 90% : Grade A
If percentage >= 80% : Grade B
If percentage >= 70% : Grade C
If percentage >= 60% : Grade D
If percentage >= 40% : Grade E
If   percentage   <   40%   :   Grade   F

9. Write a C program that will take the amount from user and print minimum number of notes (Rs. 500, 100, 50, 20, 10, 5, 2, 1) required for the amount.
For example: Input amount: 576
Output Total number of notes: 500: 1 , 100: 0 , 50: 1, 20: 1, 10: 0, 5: 1, 2: 0, 1: 1

10. The gross salary of an employee in a firm is calculated on the basis of the following

Formula: Gross = Basic + DA+HRA.

Write a C program to input basic salary of an employee and calculate gross salary according to given conditions.

Basic Salary <= 10000 : HRA = 20%, DA = 80%

Basic Salary is between 10001 to 20000 : HRA = 25%, DA = 90%

Basic Salary >= 20001 : HRA = 30%, DA = 95%