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| **Unit – II Control Statements, Array & String:** | | |
| **Day – 5** | | |
| **Sr#** | **Topics to be covered** | **Assignment** |
| 1 | Two way decision using if-else statement Multi-way decision | **Essential Assignment**  1. Write a program to read marks from keyboard and your program should display equivalent grade according following table  (if-else if ladder) Marks Grade  80-100 Distinction  60-79 First Class  35-59 Second Class  0-34 Fail   1. Write a C Program to create a simple calculator. Take the two number from the user and one character as operator(‘+’,‘-’,‘\*’, ‘/’ ,‘%’)(using if….else if) 2. Write a C Program to check whether a character is an alphabet or not using ASCII Value. 3. Write a C Program to compute the quadratic equation using following equation Delta = b2-4ac   If Delta is equal to zero so the value of alpha and beta is -b/(2\*a) If Delta is less than so it is imaginary roots  Otherwise calculate the value of alpha and beta following equation  alpha = −𝑏 + √𝑏2−4𝑎𝑐  2𝑎  beta = −𝑏 − √𝑏2−4𝑎𝑐  2𝑎   1. Write a C Program to read the age of three persons from the keyboard and find out   maximum age out of three (using nested if) |
| 2 | Nested if  dangling else problem | **Desirable Assignment**   1. Write a C program to check whether the triangle is valid or not if angles are given. The angle property of the triangle says that the sum of all three angles should be equal to 180. (using if- else) 2. Write a C program to check the whether a character is an vowel or constant(using nested if |

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|  |  | else)   1. In geometry, an isosceles triangle is a triangle that has two sides of equal length. An equilateral triangle is a triangle in which all three sides are equal and A scalene triangle is a triangle that has three unequal sides. Write a C program to Check whether the triangle is equilateral, scalene, or isosceles (using if..else if) 2. Write a C program to find out given year, which is leap or not. Hint :( A year is a leap year which is divisible by 100 then it check it is divisible by 400, if yes so it is leap year. If it is not divisible by 100 so it check is divisible by 4 if yes, so it is leap year else it is not leap year) 3. An electricity board charges the following rates for the use of electricity: For the first 200 units; 80 P per unit   For the next 100 units; 90 P per unit Beyond 300 units; Rs. 1 per unit  All users are charged a minimum of Rs. 100 as meter charge. If the total amount is more than Rs. 400, then an additional surcharge of 15% of total amount is charged. Write a program to read the names of users and number of units consumed and printout the charges with names   1. Write a C Program that will read the value of x and evaluate the following function Y= 1 for x>0 ,0 for x=0,-1 for x<0   Using   * 1. Nested if statements   2. Else if statements |