Lab Programs
(while loop)

1. Print the numbers from 1 to 10.
2. Print numbers from 10 to 1 in reverse order with a difference of 2.
3. Print the sum of digits of any number.
4. Print the product of digits of any number.
5. Find the factorial of a number.
6. Convert a binary number to a decimal number.

(do while loop)

7. Print the numbers from 1 to 15 with a step size of 3.
8. Count the digits of a number.
9. Find the sum of the numbers entered through the keyboard.

Homework Programs

1. Multiply two positive numbers without using * operator.
2. Convert a decimal number to its equivalent binary number.
3. Find the sum of this series up to n terms 1+2+4+7+11+16+...
4. Generate the fibonacci series 1,1,2,3,5,8,13,34,55,89
5. Find the LCM and HCF of two numbers.
6. An integer n is divisible by 9 if the sum of its digits is divisible by 9. Develop a program to display each digit, starting with the rightmost digit. Your program should also determine whether or not the number is divisible by 9. Test it on the following numbers:
   n = 154368
   n = 621594
   n = 123456
   Hint: Use the % operator to get each digit; then use / to remove that digit.
   So 154368 % 10 gives 8 and 154368 / 10 gives 15436. The next digit extracted should be 6, then 3 and so on.

7. Write a program to process a collection of daily high temperatures. Your program should count and print the number of hot days (high temperature 85 or higher), the number of pleasant days (high temperature 60–84), and the number of cold days (high temperatures less than 60). Test your program on the following data:
   55 62 68 74 59 45 41 58 60 67 65 78 82 88 91 92 90 93 87 80 78 79 72 68 61 59

8. Write a program to process weekly employee time cards for all employees of an organization. Each employee will have three data items: an identification number, the hourly wage rate, and the number of hours worked during a given week. Each employee is to be paid time and a half for all hours worked over 40. A tax amount of 3.625% of gross salary will be deducted. The program output should show the employee's number and net pay. Display the total payroll and the average amount paid at the end of the run.