

CL1002 – Programming Fundamentals Lab

Practice Problems

Note:

- Submit a pdf containing all your C code with all possible screenshots of every task output on Google Classroom.
- Please submit your file in this format (roll-no-name) i.e. (23P-1234-Ali.pdf).

Problem: 1

Write a C program that prompts the user to enter an integer and then determines whether the input is a prime number. A prime number is defined as a number that is only divisible by 1 and itself. Create user defined function identify whether it is a prime number or not.

Problem: 2

Imagine you have a collection of books on a shelf, and each book has a number printed on it. You want to create a program in C that helps you find the sum of the numbers on those books by using a function. The program should take a starting book, an ending book, and the number of books you want to skip between them. Write the C program to calculate the sum of the numbers on the selected books?

Problem: 3

Create a C program that calculates the factorial of a number by taking input from the user and implementing a user-defined function. Factorial is determined by multiplying a number down to 1.

Problem: 4

The question is asking you to design a C program for a restaurant's order system. This program should allow users to interact with the restaurant's menu and place their orders. Here's a breakdown of what the program should do:

1. **Menu:** The restaurant has a menu with various food items listed.
2. **Ordering:** The user can select items from the menu to order.
3. **Quantity:** The program should also allow the user to specify the quantity of each item they want to order.
4. **Repeat Orders:** If the user wants to order more items after selecting some, they can do so by entering 'Y' to continue ordering.
5. **Bill Calculation:** The program should calculate the total bill.

Welcome to Our Restaurant!

Menu:

- 1. Burger - \$5.99**
- 2. Pizza - \$7.99**
- 3. Salad - \$4.49**
- 4. Pasta - \$8.99**
- 5. Soda - \$1.99**

Enter the item number you want to order: 1

Enter the quantity: 2

Item added to your order.

Do you want to order more items? (Y/N): Y

Enter the item number you want to order: 3

Enter the quantity: 1

Item added to your order.

Do you want to order more items? (Y/N): N

Thank you for your order!

Total Bill: \$16.47

