

National University of Computer and Emerging Sciences



Lab # 07

For

Programming Fundamentals Lab

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Semester	Fall 2022

FAST School of Computing

Instructions:

1. Make a word document with the convention “SECTION_Lab#_ROLLNO” and put all your source code and snapshots of its output in it.
2. Plagiarism is strictly prohibited, do not copy anything from internet, or any of your friend else your assignment will be marked 0.
3. Do not discuss solutions with one another.
4. Write the code with proper dialogues to improve the user interaction with your program.

Task 01:

Write a C++ program that takes a number input from user and prints if it's greater than 10 or not.

Task 02:

Write a C++ program that inputs a character and checks whether it's capital letter or small letter. If its capital letter changes it into small letter, if it's small letter change it into capital letter.

Task 03:

Write a C++ program that inputs a number and if it's less than 5, print “Red”, if it's greater than 5 and less than 10, print “Green”, and if it's greater than 10 but less than 15 print “Blue”.

Task 04:

This programming example demonstrates a program that calculates a customer's bill for a local cable company. There are two types of customers: residential and business. There are two rates for calculating a cable bill: one for residential customers and one for business customers. For residential customers, the following rates apply:

- Bill processing fee: \$4.50
- Basic service fee: \$20.50
- Premium channels: \$7.50 per channel.

For business customers, the following rates apply:

- Bill processing fee: \$15.00
- Basic service fee: \$75.00 for first 10 connections, \$5.00 for each additional connection
- Premium channels: \$50.00 per channel for any number of connections

The program should ask the user for an account number (an integer) and a customer code. Assume that R or r stands for a residential customer, and B or b stands for a business customer

Input

The customer's account number, customer code, number of premium channels to which the user subscribes, and, in the case of business customers, number of basic services connections.

Output

Customer's account number and the billing amount.

Task 05:

Input a 5-digit number from user and check if it's palindrome or not. For example, if input is 12321, it's Palindrome.

Task 06:

Write a C++ program that,

1. Reads marks from the user.
2. Prints "A+" if marks are greater than 90.
3. Prints "A" if marks are greater than equal to 80 and less than 90.
4. Prints "B+" if marks are greater than equal to 70 and less than 80.
5. Prints "B" if marks are greater than equal to 60 and less than 70.
6. Prints "C" if marks are greater than equal to 55 and less than 60.
7. Prints "D" if marks are greater than equal to 50 and less than 55.
8. Prints "F" if marks are less than 50.

Task 07:

Write a C++ program that inputs a character and checks whether it's vowel or not.

Best of luck
