Question 01

Write a program to input a character from the user, check if the user has entered a number or a capital alphabet or a small alphabet or a special character.

Question 02

You are writing a voter eligibility function, ask the user for their date of birth (Year, month, and day) display "You are eligible to vote" if they are above 18 years on 12 October 2023, otherwise display "you are not eligible to vote".

Question 03

Write a program that takes 10 characters from the user and counts how many characters were vowels and how many characters were consonants. Tell user if s/he has entered more vowels or consonants. Also, display the count of both vowels and consonants.

Question 04

Input two numbers from the user and a character that represents the operation. If the user has entered "+" after two numbers then display "Sum of 10 and 20 is 30" (here we suppose 10 was the first number and 20 was second). Similarly, perform subtraction (-), division (/), multiplication (*), modulus (%) , left shift (for left shift <), right shift (for right shift >).

Question 05

Remember our task from lab 2, now you have the opportunity to implement this in C.
You are supposed to create a mark sheet. There are five subjects in total. Each subject has equal marks i.e., 100, therefore total marks are 500. Take marks of five subjects as input from the user. Calculate the percentage. If the percentage is below 50, he/she fails else he/she is pass. If marks in any subject are less than 40, the overall result is still failed despite the percentage being over 50%. You are required to display the student percentage and overall result.

Question 06

You are requested to ask the user for a username of 3 characters and a password of 3 characters only. Then ask for the username and password from the user, if the username and password match displays the message "You have successfully logged in", otherwise display "Wrong username Or Password".

Question 07

You are requested to write a program that selects the students for the scholarship. Calculate the GPA of the first-semester student and if their GPA is above 3.8 he has qualified for a full scholarship if it is above 3.5 and below 3.8 then 75% scholarship is offered, if the GPA is above 3.3 and below 3.5 then 50% scholarship will be provided by the university. Below 3.3 receive no scholarship.

GPA of Semester = For each subject: (obtained grade x credit hours) / (Total credit hours of the semester)

Grades and GPA relation is shown below

Letter Grade	Point Value of Grade
A	4
B	3.5
C	3
D	2.5
E	2.0
F	<2.0

Question 08

Ask the user time of the day (24 hours format, 13:15) based on the time suggest prayer to offer. For example: if the user enters 5:15 then it is Fajar Time.

Karachi Prayer timings are

Fajar: 5:11   Sun rise: 6:26

Zohar: 12: 20

Asar: 3:42

Maghrib: 6:13

Isha: 7:29