

Assignment No. –

Using Conditional & Switch-Case Statements

Write a program in 'C' to perform the following tasks:

1. Input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:
Percentage $\geq 90\%$: Grade A
Percentage $\geq 80\%$: Grade B
Percentage $\geq 70\%$: Grade C
Percentage $\geq 60\%$: Grade D
Percentage $\geq 40\%$: Grade E
Percentage $< 40\%$: Grade F
2. Input Basic salary of an employee and calculate its Gross salary according to following slabs:
Basic Salary ≤ 10000 : HRA = 20%, DA = 80%
Basic Salary ≤ 20000 : HRA = 25%, DA = 90%
Basic Salary > 20000 : HRA = 30%, DA = 95%
3. Calculate and print the electricity bill of a given customer. The customer ID, name, and unit consumed by the user should be captured from the keyboard to display the total amount to be paid to the customer. The charge are as follow :

UNITS	CHARGE/UNIT
Up to 199	@ 1.20
200 and above but less than 400	@ 1.50
400 and above but less than 600	@ 1.80
600 and above	@ 2.00

If bill exceeds Rs. 400 then a surcharge of 15% will be charged and the minimum bill should be of Rs. 100/-

4. Read temperature in Centigrade and display a suitable message according to temperature state :
Temp < 0 then Freezing weather
Temp 0 – 10 then Very Cold weather
Temp 10 – 20 then Cold weather
Temp 20 – 30 then Pleasant weather
Temp 30 – 40 then Hot weather
Temp ≥ 40 then Very Hot and Humid weather

5. Use a menu-driven program to read any day as a number and display it in words.
[*Output:* Enter a day : 4
 It is Thursday]
6. Compute the area of various geometrical shapes (circle, rectangle, and triangle) using a menu-driven program.
7. Design a calculator using the operators +, -, *, /, % using a menu-driven program.
8. Read any month number and display it in words along with the number of days for this month.
9. A student will not be allowed to sit in the examination if his/her attendance is less than 75%.
Take following input from user ...
Name of the Student :
Number of classes held :
Number of classes attended :
and print ...
% of class attended :
Student Allowed to Appear Exam or Student Not Allowed to Appear Exam
10. Ask user to enter age, gender (*M* or *F*), marital status (*Y* or *N*) and then using following conditions print their place of service:
 - a) if employee is a married Female then, she will work only in Urban areas.
 - b) if employee is an unmarried Female then, she will work in Rural areas.
 - c) if employee is a Male and age is between 20 to 40 then, he may work at any place.
 - c) if employee is a Male and age is between 40 to 60 then, he will work in Urban areas only.
 - d) for any other inputs, the system should print "*ERROR*".

Signature of the Faculty