LAB 3: CONDITIONAL STRUCTURES

1. Given a positive integer denoting *N* , do the following:

   - If ,1<=N<=9 then print the lowercase English word corresponding to the number

     (e.g., one for , two for , etc.).

   - If N>9 , print Greater than 9.

2. Write a C program that reads a date (Read the day, month and year as numbers) and print it in the following format. Implement the program using **switch**

   Sample input:
   Enter day: 2
   Enter month:12
   Enter year: 2001

   Expected output:
   2 December 2001

3. A mail order house sells 5 different products whose retail prices are shown in the following table. You are required to write a program that calculates the ***final price*** for a product sold.
   The program reads 2 values: *product number* and *quantity sold*.
   The ***total price*** is calculated as***unit price * quantity sold***
   A discount of 10% of ***total price*** is available for products 2 and 3.
   Your program should determine the ***final price*** for the product obtained by deducting the discount(only for products 2 and 3) from the ***total price***.
   Display an error message if an invalid product number is entered

Product number	Unit price
1	Rs 2.98
2	Rs 4.50
3	Rs 9.98
4	Rs 4.49
5	Rs 6.87

4. Write a C program that read a number from the user and display whether it is a single digit number, 2 digit number, 3 digit number or a number with more than 3

digits. [Assume only positive inputs]

5. Read a date (day, month, year) from the user and display the date of previous day and next day of the input date. [Your program should work correctly for months with 30 days and months with 31 days....]
   Sample input: 31 12 1991
   Expected Output:
   Previous date: 30 12 1991
   Next date: 1 1 1992
6. Given a point, a line from the point forms an angle with the horizontal axis to the right of the line. The line is said to terminate in one of the quadrants based on its angle. Write a program that determines the quadrant, given a user input angle. If the angle is exactly 0, it is not in a quadrant but lies on the positive X axis; if it is exactly 90, it lies on the positive Y axis, If it is exactly 180, lies on the negative X axis; if it is exactly 270, it lies on the negative Y axis
7. KBC bank has decided to give special offers to their loyal customers. They are offering special interest rates to loans for the customers who opened an account in their bank before 2005. The details are given below.

Customer type	Loan interest rate
Customers who opened account before 2005	10%
Customers who opened account after 2005	20%
Customers without an account in the bank	25%

   Write a program that calculates for a customer, the money he/she will have to repay after a specified time period (amount + interest). Your program should get the following inputs from user

   - Userid, principal and time period

   The userid is 5 digit number in which last 4 digits give the year in which the customer opened an account. For eg: userid 221999 belongs to a customer who opened the account in 1999

   Your program should be able to determine the customer type from the user id.

8. Write a C program that reads an ascii value from the user and print the corresponding character

1. Write a C program to multiply 2 floating point numbers
2. Write a C program to compute quotient and remainder with 2 decimal points
3. Write a C program to find swap 2 numbers
4. Write a C program to print 3 characters and reverse of it
   Test data: The reverse of ABC is CBA
5. Write a C program to find the area and perimeter of circle with a radius 6 inches
   Expected Output:
   Perimeter of the Circle = 37.680000 inches
   Area of the Circle = 113.040001 square inches

6. Write a C program to display multiple variables.
   Sample *Variable*s :
   a+ c, x + c,dx + x, ((int) dx) + ax, a + x, s + b, ax + b, s + c, ax + c, ax + ux
   Declaration :
   int a = 125, b = 12345;
   long ax = 1234567890;
   short s = 4043;
   float x = 2.13459;
   double dx = 1.1415927;
   char c = 'W';
   unsigned long ux = 2541567890;
7. Write a C program that accepts two item's weight (floating points' values) and number of purchase (floating points' values) and calculate the average value of the items.
   Test Data :
   Weight - Item1: 15
   No. of item1: 5
   Weight - Item2: 25
   No. of item2: 4
   Expected Output:
   Average Value = 19.444444
8. Write a C program to print the data types and number of bytes it takes