JC1001 Practical / Lab 3 – Conditional statements

In this practical you will write some simple programs using conditional statements.

1) An online retailer offers discounts on the total number of items purchased based on the following criteria:

   - No discount for less than 10 items
   - 20% discount for purchases with between 10 and 19 items
   - 30% discount for purchases with between 20 and 30 items
   - 50% discount for purchases with more than 30 items

   Write a program that asks the user to enter the total number of items purchased, followed by the price of the sum of all items and then displays the final amount to pay, considering any discounts that are applicable.

2) Write a program that reads a letter from the English alphabet from the user. If the letter is a vowel (a,e,i,o,u) then it should inform the user that it is a vowel. If the user enters a (y), then the user should be informed that a y can sometimes be a vowel and sometimes is not. For all other input letters, the program should inform the user that it is a consonant.

3) Write a program that asks the user for the length and width of two rooms. It should then inform the user whether the areas are the same, or if not, which room is larger.

4) In the Gregorian calendar, the length of a month varies from 28 to 31 days. Write a program that reads the name of a month from the user as a string. Then displays the number of days in that month.

   Hint: If the month is Feb, then it should display “28 or 29 days” to take leap years into account.

5) Write a program that determines the name of a shape from its number of sides. Read the number of sides from the user and then report the appropriate name as part of a meaningful message. Your program should support shapes with anywhere from 3 up to (and including) 10 sides. If the number of sides outside of this range is entered, then your program should display an appropriate error message.

6) A triangle can be classified based on the lengths of its sides as equilateral, isosceles or scalene. All 3 sides of an equilateral triangle have the same length. An isosceles triangle has two sides that are the same length, and a third side that is a different length. If all of the sides have different lengths, then the triangle is scalene. Write a program that reads the lengths of 3 sides of a triangle from the user. Display a message indicating the type of the triangle.