Lab 5: Calculate Price and Discount

Purposes

1. Practice the CASE construct.
2. Practice the four-step problem solving process.
3. Practice algorithm design with relative complex problem.

Problems

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Requirement

1. Complete the pre-lab exercises **before** you entering in the lab. Help is available during the tutoring hours and office hours.

2. In the lab time, follow the In-Lab instruction to finish the lab practice. Record the required information as lab report.

3. Demo your lab program for the instructor or the TA. Submit your pre-lab exercise and the lab report.

Pre-Lab Exercise

1. Analyze the problem and write down the specification of the problem, including the input and output.

What is the problem?	
What is the input information? How many variables needed to represent them? List the name and type for each variable.	
What is the output information? How many variables needed to represent them? List the name and type for each variable.	
Are there additional variables needed to solve the problem? List the name and type for each additional variable.	

2. What is the step-by-step procedure to solve this problem? Draw a flow chart to represent this procedure.

3. In this lab, you need create a new program from scratch. Write down a draft of the program in the following table.

PROGRAM program-name Comments 1. program purpose 2. variable names and meaning 3. input and output	
Declare all variables. *Type-specifier :: list*	
Get input information. Do calculation. Display output information.	
END PROGRAM program-name	

In-Lab Instruction

1. Create a new folder **lab5** in **CIS261**, use this folder to save files for this lab.

2. Implement the program coding.

3. Compile and execute the modified program, test it with two groups of input data, write down the input data and the output results in the table below.

	Test1	Test2
Input		
Output		