

TK1914 C++ Programming

Lab Assignment 2

Control Structure I (Selection)

1. A teacher wants to modify a set of exam marks as follows:
If a mark is less than or equal to 70, then it will be increased by 7%.
If a mark is between 71 and 95 inclusive, then it will be increased by 3%.
Otherwise, the mark will not change.
2. Write a program that reads in a mark and modifies it with these points.
 1. A student is accepted into an electronics course if any of the following is true.
 1. His or her average is 90 or higher.
 2. His or her average is 70 or higher and his or her physics mark is 85 or higher.
 3. His or her physics mark is 95 or higher but the average is at least 50.Write a program that determines a student's acceptance status. The initials of a student, his or her average, and his or her physics mark must be provided. A letter of acceptance or rejection is to be produced for each student.
3. Write a program that determines an employee's pay given the number of hours worked. If the hours worked were no more than 40, the employee is paid RM12.00 an hour; otherwise, the employee is paid at time and a half for the overtime. Besides the number of hours worked, the program will read in the employee's names.
4. Write and run a program that simulates a simple calculator. It reads two integers and a character. If the character is a +, the sum is printed; if it is a -, the difference is printed; if it is a *, the product is printed; if it is a /, the quotient is printed; and if it is a %, the remainder is printed. Use a `switch` statement. (For division, if the denominator is zero, output an appropriate message.)

Example:

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Enter two integers: 30 13
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Enter an operator: %
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The answer for 30 % 13 is 4
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5. A software company sells a package that retails for RM99. Quantity discounts are given according to the following table:

<u>Quantity</u>	<u>Discount</u>
10 – 19	20 %
20 – 49	30 %
50 or more	40 %

Write a program that asks the user to enter the number of packages purchased. The program should then display the amount of the discount (if any) and the total amount of the purchase after the discount.