CSC1024 Programming Principles
Coding Exercise 2

1. Underground Video is a rental store that rents VHS tapes and DVDs to aficionados. The store rents new videos for $3.00 a night, and oldies for $2.00 a night. Write a program that can be used to calculate the total charge for a customer's video rentals. The program should prompt the user for the number of each type of video as well as the number of days rented. The output of the program will be the total cost for rental.

2. Write a program that prompts the user to input the elapsed time for an event in seconds. The program then outputs the elapsed time in hours, minutes, and seconds. For example, if the elapsed time is 9630 seconds, then the output would be 2:40:30.

3. Write a program that prompts the user for his/her yearly income, and outputs the amount of taxes to pay based on the yearly income. The tax table is as follows:
   a. RM 0 to 2,500 – Tax rate: 0%
   b. RM 2,501 to 10,000 – Tax rate: 5%
   c. RM 10,001 to 50,000 – Tax rate: 15%
   d. Exceeding 50,001 – Tax rate: 25%

   For example, if the income is RM 12,000, the total taxes would be RM 1,800 (15%).

4. Company ABC is introducing a new data plan for smartphones. Each GB (Gigabyte) of data will cost RM 15, up to 10 GB. Any data over 10 GB will be charged at RM 30 per GB. Write a program that prompts the user to enter their monthly data usage (in GB), and prints the data charges for the month.

5. Write a program that allows the user to find the area of a rectangle or the area of a circle after prompting the user to choose 'R' or 'r' for rectangle and 'C' or 'c' for circle into a variable named choice. The area of a rectangle is length x width and the area of a circle is π x radius^2 where π is 3.14159.

6. Write a simple program for a restaurant whereby the user will be required to enter in a number which corresponds to the day of the week (1 = Monday, 2 = 'Tuesday', etc) and it will inform them of the drink of the day offered. Refer to the list below for the drinks. You must use a switch case for this question.

   Monday: Peppermint Mocha.
   Tuesday: Candy Bar Latte.
   Wednesday: Caramel Coffee.
   Thursday: Chocolate Almond Cafe Au Lait.
   Friday: Pumpkin-Chai Latte.
   Saturday: Vanilla Chai Tea.
   Sunday: Gingerbread Latte.