Week 12

Shell Scripting – Exercises

1. Write a program that asks the user to enter two numbers. If the first number entered is bigger than the second the program should output the sum of the two numbers, otherwise the program should output the difference of the two numbers.

2. Modify the script from the previous exercise so that if the first number entered is even than the program should output the product of the two numbers, otherwise the program should output the remainder of their division.

3. Write a script that does the following:
   - Reads and sets the integer variable M
   - Reads and sets the integer variable R
   - Reads and sets the integer variable T
   - Sums M, R, and T in the variable A
   - Evaluates A to determine if it is greater than 2000.
   - If A is greater than 2000, prints on the screen "A is over 2000."
   - If A is less than or equal to 2000 prints on the screen "A is 2000 or less."

4. Write a program that prints the square of a number if the square is bigger than 90.

5. Write a program that prompt the user to enter his/her favourite colour. The choices for the user are: blue, yellow, red, orange. Print a message of your choice in response to each coloured selected by the user.

6. You will create a program that uses four different if statements. Ask the user to enter an integer and then check whether this integer is bigger than or equal to 11.
   If the number that the user entered is greater than or equal to 11 display a message to state this fact.
   In a second statement check whether the number entered is smaller than or equal to 111. If it is, then display another message stating this.
   In a third statement check whether the number entered is actually between both bounds: bigger than or equal to 11 and smaller than or equal to 111. If it is, again, display a message to state this.
   In a fourth statement, check whether the number entered is actually equal to any the two bounds themselves: equal to 11 or equal to 111. If it is, display another message to state this.
   You can use constants to model the two boundaries, 11 and 111.

7. Use an if/else statement to compare a number entered by the user with a target number saved in a constant. Display messages in both cases to notify the user of the result of your comparison.

8. Ask the user to enter a grade from 0-100. The program should display a corresponding score as a letter as shown below:

Grade	Letter score
90-100	A
80-89	B
70-79	C
60-69	D
0-59	F

   If the grade is F the program should display the message: “you must repeat the class, sorry”. In all other cases a congratulation message should be displayed.

9. Case logic is often used when many choices are given through a program or when many responses can be made on the basis of one choice. In this project, you create a shell script that employs case logic to respond to your favorite color (many possible responses selected on the basis of one choice). The choices for the user are: blue, yellow, red, orange. Print a message of your choice in response to each coloured selected by the user.

10. Employ case logic to write a program that prints out the grade range for each letter grade (the opposite of exercise 8).