CSE 1321L: Programming and Problem Solving I Lab

Lab 4

Selection Structures

**Exercise #1:** Design and implement a program (name it Youth) that reads from the user an integer values repressing age (say, age). The program prints out the entered values followed by a message as follows: If age is less or equal to 21, the message is “Youth is a wonderful thing. Enjoy.”. Finally, the program always prints out the message “Age is a state of mind.” Format the outputs following the sample runs below.

Sample run 1:

You entered: 20  
Youth is a wonderful thing. Enjoy.  
Age is a state of mind.

Sample run 2:

You entered: 25  
Age is a state of mind.

Sample run 3:

You entered: 21  
Youth is a wonderful thing. Enjoy.

Age is a state of mind.

**Exercise #2:** The weekly pay for an employee is determined based on the following parameters:

Standard work hours by week is 40 hours.

Hourly pay rate is $10.00 per hour

Overtime hours are paid at time and a half the rate (that is $15.00 per hour).

Design and implement a program (name it WeeklyPay) that read number of hours worked per week (as integer value), prints out the entered hours, and then prints out the gross earning. Organized your output following these sample runs.

Sample run 1:

You entered 20 hours.  
Gross earning is $200

Sample run 2:

You entered 40 hours.  
Gross earning is $400

Sample run 3:

You entered 50 hours.  
Gross earning is $550

**Exercise #3:** Design and implement a program (name it GradeReport) that uses a switch statement to print out a message that reflect the student grade on a test. The messages are as follows:

For a grade of 100 or higher, the message is ("That grade is a perfect score. Well done.")

For a grade 90 to 99, the message is ("That grade is well above average. Excellent work.")

For a grade 80 to 89, the message is ("That grade is above average. Nice job.")

For a grade 70 to 79, the message is ("That grade is average work.")

For a grade 60 to 69, the message is ("That grade is not good, you should seek help!”)

For a grade below 60, the message is ("That grade is not passing.”)

Organized your output following these sample runs.

Sample run 1:

You entered 100  
That grade is a perfect score. Well done.

Sample run 2:

You entered 75  
That grade is average.

Sample run 3:

You entered 55  
That grade is not passing.

**Instructions:**

1. Programs must be working correctly.

2. Programs must be completed and checked before working the assignment.

3. Programs must be checked by the end of the designated lab session.