

ECE 152 Programming for Engineers
Laboratory 6

NOTE:

- a) Please submit only C++ source files (*.cpp) to Blackboard.
- b) Please put your name, project description, and date on the top of your file as a comment.
- c) PLEASE WORK ALONE. If cheating is found, you will get ZERO.

1. (Lastname_Lab6_p1.cpp)

Write a function named `change()` that has an integer parameter and six integer reference parameters named `hundreds`, `fifties`, `twenties`, `tens`, `fives` and `ones`. The function is to consider the integer passed value as a dollar amount and convert the value into the least number of equivalent bills. Using the references, the function should directly alter the respective arguments in the calling function.

2. (Lastname_Lab6_p2.cpp)

Write a function named `yrCalc()` that has an integer parameter representing the total number of days since the turn of the last century (1/1/1900) and reference parameters named `year`, `month`, and `day`. The function is to calculate the current year, month and day for the given number of days passed to it. Using the references, the function should directly alter the respective actual arguments in the calling function. For this problem, assume that each year has 365 days and each month has 30 days.

3. (Lastname_Lab6_p3.cpp)

Write a function named `liquid()` that has an integer number parameter and reference parameters named `gallons`, `quarts`, `pints` and `cups`. The passed integer represents the total number of cups, and the function is to determine the numbers of gallons, quarts, pints, and cups in the passed value. Using the references, the function should directly alter the respective actual arguments in the calling function. Use the relationships of 2 cups to a pint, 4 cups to a quart and 16 cups to a gallon.

4. (Lastname_Lab6_p4.cpp)

- a. Write a program to input the following values into an array named `prices`: 10.95, 16.32, 12.15, 6.22, 15.98, 26.43, 17.54, 6.45, 17.59. After the data have been entered, have your program display the values.
- b. Repeat the part a, but after the data have been entered, have your program display them in the following form:

10.95	16.32	12.15
6.22	15.98	26.43
17.54	6.45	17.59

5. (Lastname_Lab6_p5.cpp)

Write a program to input eight integer numbers into an array named `grade`. As each number is input, add the number into a total. After all numbers are input,

display the numbers and their average. (You can use `cin` to take number or use `rand()` to assign random numbers to the array.)