Homework #5 (abcd) - Four parts

**HW\_5a**

* Write a program that asks the user to input one keyboard character.
* The program then determines if the character is a lowercase alphabetic character (a-z).
* If the character is a lowercase alphabetic character, a screen message should say so.
* If it is not, then the message should say that. (See Output)

**Your program should include the following:**

1. Prompt the user to enter a keyboard character. (see output below)
2. The character entered by the user is read and the value held in a variable.
3. The program then determines whether or not the character is a lowercase alphabetic

character (a – z).

* Use an **if / else** control structure to determine whether or not the character is an

alphabetic character.

* The condition to be tested is whether or not the character has a numeric value only within

the range of ASCII characters ‘a’ to ‘z’.

* + If so, it must be a lowercase alphabetic character. Otherwise, it cannot be.

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/\* **OUTPUT**

Enter a keyboard character and press Enter: a 🡨 User enters a

The character is a lowercase alphabetic character.

Press any key to continue \*/

/\* **OUTPUT**

Enter a keyboard character and press Enter: A 🡨 User enters A

The character is not a lowercase alphabetic character.

Press any key to continue \*/

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**HW\_5b** - Project: **Legal age**

* Create a new project and name it: **legalAge**
* Create a new file and name it: HW**\_5b.cpp**
* Write a program that produces the output shown, based on the following

information:

Here are some sample outputs:

**/\* OUTPUT:**

Enter your age: 21

You are legally allowed to drink alcoholic beverages.

Press any key to continue ... \*/

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Enter your age: 16

You are not legally allowed to drink alcoholic beverages.

Press any key to continue ... \*/

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**Write a program that does the following**:

The program asks the user to enter his or her age. The program then determines whether the person is at least 21 years old.

1. First, the program prompts the user to enter an age. (see output)

* The user enters the age, which is read and then assigned to a variable.

1. Then the program uses and ***if else control structure*** to determine

whether the age is 21 or older.

* The result is then displayed on the screen. (see output above)

**HW\_5c** - Project: **Cities**

* Create a new project and name it: **Cities**
* Create a new file and name it: **HW\_5c.cpp**
* Write a program that produces the output shown:

/\* **OUTPUT:**

MENU

a. Paris

b. New York

c. Madrid

d. Honolulu

What city would you like to visit: c

Make sure to visit the Prado Museum in Madrid.

Press any key to continue **\*/**

**Write a program**:

Write a program that first displays a list of cities, and then prompts the

user to make a selection. The selection is then printed on the screen. (see output)

* First, the program displays a lists of cities.
* Next, the user is prompted to enter a selection.
  + The user’s selection is read and assigned to a variable.
* Use a **switch control structure** to determine what will be displayed on the screen,

based on the user’s selection.

* + Use the following information for the switch statement and corresponding output:

a. Paris - The Eiffel Tower is spectacular!

b. New York - Climb the stairs to the top of the Statue of Liberty

c. Madrid - Make sure to visit the Prado Museum in Madrid.

d. Honolulu - Always great!

* + For example, if the user’s selection is c, as shown in the output, then

“Make sure to visit the Prado Museum in Madrid.” is displayed.

(see output above)

**HW 5d**

1.) Prompt user to enter 3 integer values.

2.) Write the even numbers to a file.

3.) Display the number of values written to a file.

// ---- **Output when no even number. -------------------**

Enter 3 numbers.

#1: 33

#2: 77

#3: 13

No are no even numbers.

// ----------------------------------------------------

// ---- **Output when there is one even number. ---------**

Enter 3 numbers.

#1: 33

#2: 55

#3: 2

One even number was written to the file.

// ----------------------------------------------------

// ---- **Output when there are 2 even numbers. ---------**

Enter 2 numbers.

#1: 33

#2: 25

#3: 6

2 even numbers have been written to a file.

// ----------------------------------------------------

// ---- **Output when there are 3 even numbers. ---------**

Enter 3 numbers.

#1: 32

#2: 24

#3: 6

3 even numbers have been written to a file.

// ----------------------------------------------------

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Note: For all 4 parts, include an information section at the top of each program. (See syllabus)

NOTE: UNSTAPLED HOMEWORK will not be accepted.

**Turn in a copy of your source code and output at the beginning of the next class.**

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