Overview:

In this assignment, you are asked to write a program to keep track of a set of cards that have been played. This will be part of an AI system that will play a new card game based on a special deck of cards. You will write a C++ program that receives part of a special deck of playing cards, will store the cards in a 2-dimensional array, and then output the array showing the cards seen.

The columns of the array are the card suits which should be, in order, are **Air**, **Earth**, **Fire Water**, and **Heart**. The rows of the array are the denominations of the card and should be in the order, the **Pawn**, the numbers **2** through **10**, then **Rook**, **Knight**, **Bishop**, **Queen**, and **King**.

The Given Input:

The input file contains a string listing some of the cards that have been played. The cards are listed with an encoding for the value followed by a single letter suit.

The Letter	Denotes		The Letter	Denotes
A	Air		P	Pawn
E	Earth		R	Rook
F	Fire		N	Knight
W	Water		B	Bishop
H	Heart		Q	Queen
			K	King

Each card is separated from the next one with ", " and you can assume all the inputs are in the correct form. See the example below as a valid input:
QA, 8F, 4E, PH, 10W, KH

(Queen of Air), (8 of Fire), (4 of Earth), (Pawn of Heart), (10 of Water), (King of Heart)

The Expected Output:

Your output file should contain a 2D array that stores the information about the cards received from the input file. The cards received in the 2D array should be counted and the value displayed and the other cards that were not received should be noted with a **0**. Display the results with a single space between the values and no space after the last value on a line.

Example:

Input File:

QA, 8F, 4E, PH, 10W, KH

Output File:

0 0 0 0 1

0 0 0 0 0

0 0 0 0 0

0 1 0 0 0

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

0 0 1 0 0

0 0 0 0 0

0 0 0 1 0

0 0 0 0 0

0 0 0 0 0

0 0 0 0 0

1 0 0 0 0

0 0 0 0 1

IMPORTANT: Homework is individual. Your homework will be automatically screened for code plagiarism against code from the other students and code from external sources. Code that is copied from another student (for instance, renaming variables, changing for and while loops, changing indentation, etc.) will be detected and result in a **0** for your homework grade.

Homework 0 needs to be turned into the Linux server. Make sure to create a folder under your root directory, name it "**hw0**" (case sensitive, no spaces), copy all your .cpp and .h file to this folder, "ArgumentManager.h" needs to be included as well. **File names should not include spaces.** You do not need to include any of the input, output, or answer files in the folder, but may wish to do so for testing purposes.