

This homework is not for the grade, but failure to submit a solution by the deadline will cause a grade deduction for your next homework grade.

## **OVERVIEW:**

In this assignment, you will write a C++ program that receives part of a shuffled deck of playing cards and will sort them in a 2-dimensional array.

Columns are in the order of spades, hearts, clubs, and diamonds. Rows are in the order of 1 to 10 then Jack, Queen, and King.

## **INPUT:**

The input file contains a string listing some of the card's numbers and the first letter of its suit.

- King denoted as **K**
- Queen denoted as **Q**
- Jack denoted as **J**
- Ace denoted as **1**

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:

**QS, 8D, 4D, 1S, 10C, KH**

(Queen of Spades), (8 of Diamonds), (4 of Diamonds), (Ace of Spades), (10 of Clubs), (King of Hearts)

## **OUTPUT:**

Your output file should contain the 2D array with the cards received in the input file notated in the 2D array with a **1** and the other cards not received notated in the 2D array with a **0**. Example:

**Input:**

QS, 8D, 4D, 1S, 10C, KH

**Output:**

1000

0000

0000

0001

0000

0000

0000

0001

0000

0010

0000

1000

0100

**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. The limit is 50% similarity. Homework 0

needs to be turned into the Linux server, follow the link here <https://uh.edu/nouhadrizk/about/courses/programming-and-data-structures/homework/>  
Make sure to create a folder under your root directory, name it “hw0” (case sensitive), copy all your .cpp and .h file to this folder, “ArgumentManager.h” needs to be included as well. You do not need to include any of the input, output, or answer files in the folder.