HACETTEPE UNIVERSITY

Department of Computer Engineering

BBM 203 – SOFTWARE LAB I

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Assignment I

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DEFINING PROBLEM:

In this assignment,I am expected implement solitaire games with using arrays I took inputs from deck.txt and commands.txt files, stored on arrays them, then did relevant processes and the result wrote to output.txt file and for this reason,I take advantage of class,its methods and strongly arrays.

EXPLANATION OF MY APPROACH:

There is most important point of my approach, using arrays and then changing them each other.C++ have a pointer and it provide memory management therefore in this assignment,I created dynamicly object and according to commands, I created again new size, how many cards are open and what are the cards in these arrays.And I did all of these by creating class.Methods provide all processes.

EXPLANATION OF CLASS DIAGRAM:
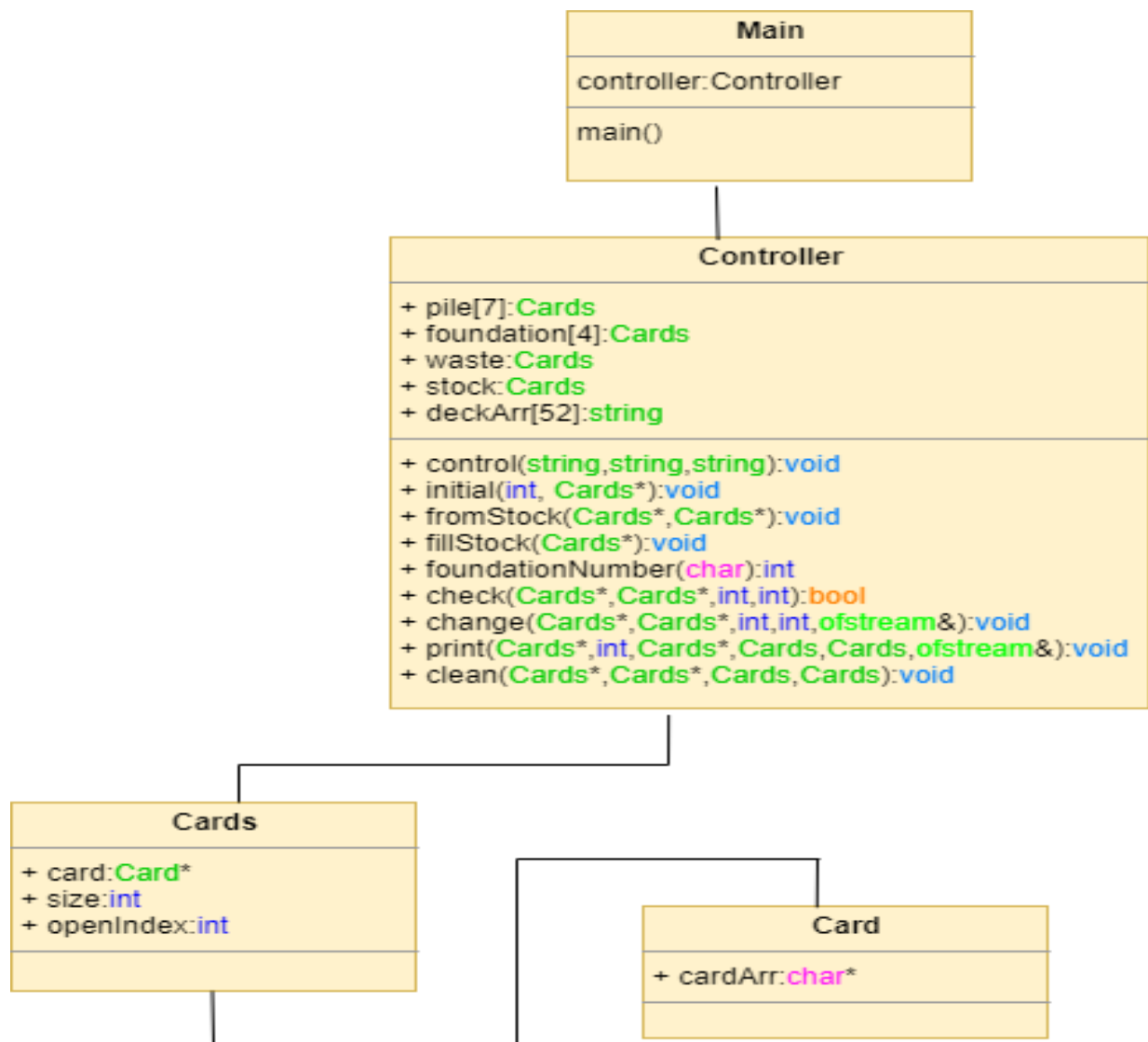
There are three classes and Main.cpp in my program.Card class have char* attribute and this have Card name such as 'D07'.Cards class have Card* arrays and those are a array for example for pile arrays have Card array with different sized,and also have size and openIndex attributes.They provide how many cards are there in that array and how many cards opened in the array.And Controller class have main attribute all of those in the game such as pile,waste,foundation arrays and them all operation made in this class such as array operation,store arrays,error handling, read file,write file etc.

EXPLANATION OF ARRAYS:

My program have main four arrays.These are pile(sizeOf 7),foundation(sizeOf 4),stock(sizeOf 1) and waste(sizeOf 1).And each of them have continuously changing card arrays.For example first case,sixth index of pile array have Card array with 7 sized and only zero index is open.Therefore that is illustrated six closed cards and one opened card in the table.When the command came from the command file my program changed array size and content of array using *change* function(they are control ideal situation for changing cards by using *check* function) and how many cards transfer to other pile or foundation.Function take them from source array,decrease openIndex count and size of source array,deallocate formal array and allocate current array with excluded cards and as same steps for destination array,the store to destination array,increase openIndex count and size of destination array.