

C++ Homework 04

1. Rotate a 2D matrix

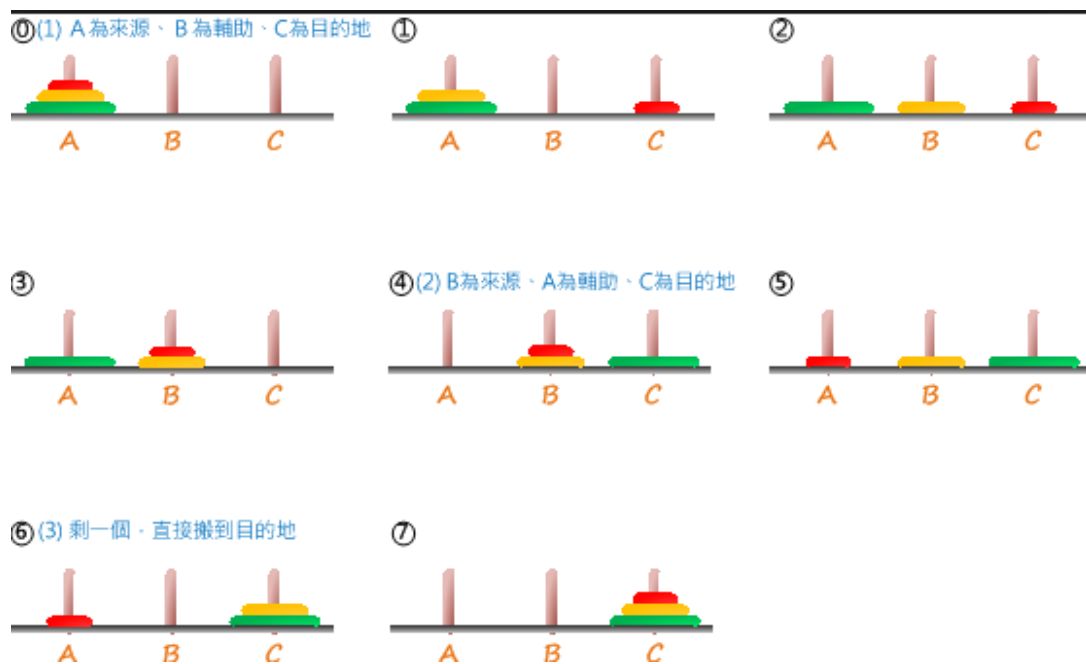
- Prompt the user to input an integer K.
- Use new to allocate a K-by-K 2D matrix, and fill it up with random values. Then, output the matrix to file A.
- Write a function rotate to rotate the matrix inplace for 90 degree.
- Call the function three times, and write the matrix to file B.
- release all memory allocated.

3. A thief who knows algorithms

- Let the user input a set of numbers $A=\{A_1, A_2, \dots, A_n\}$
 - A is of type `vector<int>`
- Then prompt the user for another bigger integer, K
- Use a recursive function to print out all the subset of A whose sum equals to K
 - `dfs(i,j, K)` // i: index of A; j: K-current sum

2. Hanoi tower

- Ask for an input K
- print out the moves needed with function `move(source, temp, destination)`.
- For example: K=3



A->C; A->B; C->B; A->C; B->A; B->C; A->C