**Assignment # 04**

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**Section: c**

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**Question #01**

#include <iostream>

using namespace std;

class test2D{

private:

int \*\*p;

public:

test2D(){

p=new int\*[3];

for(int i=0;i<3;i++){

p[i]=new int[3];

}

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

p[i][j]=0;

}

}

}

void initialize(test2D obj){

cout<<"Enter Data"<<endl;

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

cin>>obj.p[i][j];

}

}

}

void print(test2D obj){

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

cout<<p[i][j]<<" ";

}

cout<<endl;

}

}

test2D sum(test2D obj1,test2D obj2){

test2D sum;

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

sum.p[i][j]=obj1.p[i][j]+obj2.p[i][j];

}

}

return sum;

}

bool similar\_arrays(test2D obj, test2D obj2){

int a=0;

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

if(obj.p[i][j]==obj2.p[i][j])

a=1;

else

return false;

}

}

return true;

}

void sort(int &a,int &b){

int c=0;

c=a;

a=b;

b=c;

}

test2D sort\_2Darray(test2D obj){

for(int i=0;i<3;i++){

for(int j=0;j<2;j++){

if(obj.p[i][i]>obj.p[i][j+1])

{

sort(obj.p[i][i],obj.p[i][j+1]);

}

}

}

return \*this;

}

};

int main(){

test2D t1,t2,t3;

bool b1;

t1.initialize(t1);

t1.initialize(t2);

cout<<"T1:"<<endl;

t1.print(t1);

cout<<"T2:"<<endl;

t1.print(t2);

b1=t1.similar\_arrays(t1,t2);

if(b1==true)

cout<<"T1 & T2 ARE SIMILAR"<<endl;

else

cout<<"T1 & T2 ARE NOT SAME"<<endl;

t3=t1.sum(t1,t2);

cout<<"SUM OF T1 & T2: "<<endl;

t1.print(t3);

cout<<"Sorted Array: "<<endl;

t1.print(t1.sort\_2Darray(t1));

}

**Question #02**

#include<iostream>

#include<fstream>

using namespace std;

ifstream in("input.txt");

class person

{

string name;

float age;

public:

person(){

name=" ";

age=0.0;

}

void setData(){

cout<<

}

void printData(){

}

float getAge(){

}

};

int main(){

}

**Question #03**

#include<iostream>

using namespace std;

class threeD

{

char \*\*\*arr;

public:

threeD(){

arr=new char\*\*[3];

for(int i=0;i<3;i++){

arr[i]=new char\*[3];

for(int j=0;j<3;j++){

arr[i][j]=new char[3];

}

}

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

for(int k=0;k<3;k++){

arr[i][j][k]=' ';

}

}

}

}

void initialize(){

cout<<"Enter Data"<<endl;

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

for(int k=0;k<3;k++){

cin>>arr[i][j][k];

}

}

}

}

void print(){

cout<<"D1"<<endl;

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

for(int k=0;k<3;k++){

cout<<arr[i][j][k];

}

}

cout<<endl;

}

}

void swap(char &a,char &b){

char c=' ';

c=a;

a=b;

b=c;

}

void evenrows(){

for(int i=0;i<3;i++){

for(int j=0;j<3;j++){

for(int k=0;k<2;k++){

if(j%2==0){

swap(arr[i][j][k],arr[i][j][k+1]);

}

}

}

cout<<endl;

}

}

void oddcols(){

for(int i=0;i<3;i++){

for(int j=0;j<2;j++){

for(int k=0;k<3;k++){

if(j%2==0){

swap(arr[i][j+1][k],arr[i][j+1][k]);

}

}

}

cout<<endl;

}

}

};

int main(){

threeD d1;

d1.initialize();

d1.print();

d1.evenrows();

d1.oddcols();

d1.print();

}

**THE----------------------------------------------------------------END**