# Lab task 1:

#include <iostream>

using namespace std;

int main()

{

int mat1[3][3], mat2[3][3], finalMat[3][3];

for (int row = 0; row < 3; row++)

{

for (int col = 0; col < 3; col++)

{

cout << "Enter Value at [" << row << "] [" << col << "] in Matrix 1 " << endl;

cin >> mat1[row][col];

}

}

for (int row = 0; row < 3; row++)

{

for (int col = 0; col < 3; col++)

{

cout << "Enter Value at [" << row << "] [" << col << "] in Matrix 2 " << endl;

cin >> mat2[row][col];

}

}

cout<< "The resultant Matrix is " <<endl;

for (int row = 0; row < 3; row++)

{

for (int col = 0; col < 3; col++)

{

finalMat[row][col] = mat1[row][col] + mat2[row][col];

cout <<"\t"<< finalMat[row][col] << " " ;

}

cout << endl;

}

}

# Task 2:

#include <iostream>

using namespace std;

int main()

{

int mat1[5][5], finalMat[5][5];

for (int row = 0; row < 5; row++)

{

for (int col = 0; col < 5; col++)

{

cout << "Enter Value at [" << row << "] [" << col << "] in Matrix 1 " << endl;

cin >> mat1[row][col];

}

}

cout << "The Matrix you entered is " << endl;

for (int row = 0; row < 5; row++)

{

for (int col = 0; col < 5; col++)

{

cout << " " << mat1[row][col] << " " ;

}

cout << endl;

}

cout << "/n The transpose of the matrix above is " << endl;

for (int row = 0; row < 5; row++)

{

for (int col = 0; col < 5; col++)

{

finalMat[row][col] = mat1[col][row];

cout << " " << finalMat[row][col] << " ";

}

cout << endl;

}

}

# Task 3:

#include<iostream>

using namespace std;

int main()

{

int Arr[5][5];

cout << "Enter 1st 5\*5 matrix" << endl;

for (int i = 1; i <= 5; i++)

{

for (int j = 1; j <= 5; j++)

{

Arr[i][j] = { j };

cout << Arr[i][j];

cout << "\t";

}

cout << endl;

}

cout << endl;

for (int i = 0; i < 5; i++)

{

cout << " ";

for (int k = 1; k <= i; k++)

{

cout << "\t ";

}

for (int j = 1; j <= 5 - i; j++)

{

Arr[i][j] = { j };

cout << "\t" << Arr[i][j];

}

cout << endl;

}

for (int i = 1; i <= 5; i++)

{

for (int j = 1; j <= i; j++)

{

Arr[i][j] = { j };

cout << Arr[i][j];

cout << "\t";

}

cout << endl;

}

}

# Task 4:

#include<iostream>

using namespace std;

int main()

{

int arr[10] ;

for (int j = 0; j < 10; j++)

{

cin >> arr[j];

}

for (int i = 0; i < 10; i++)

{

for (int j = 1; j <= 10; j++)

{

if (arr[j - 1]>arr[j])

{

int temp = arr[j - 1];

arr[j - 1] = arr[j];

arr[j] = temp;

}

}

}

cout << "Enter number in ascending order";

for (int j = 0; j < 10; j++)

{

cout << arr[j]<<endl;

}

system("pause");

}

# Task 5:

#include<iostream>

using namespace std;

void no\_of\_pass(int bus[4][5])

{

for (int i = 0; i < 4; i++)

{

cout << "Enter the number of passenger for route " << i+1<<endl;

for (int j = 0; j < 5; j++)

{

cin >> bus[i][j];

}

}

}

void number\_pass(int bus[4][5])

{

for (int i = 0; i < 4; i++)

{

cout << "Passenger for day" << i + 1 << endl;

for (int j = 0; j < 5; j++)

{

cout << bus[i][j]<<endl;

}

}

}

void total\_route(int bus[][5])

{

int avg;

int sum=0;

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

{

for (int j = 0; j < 5; j++)

{

cout << bus[i][j];

sum += bus[i][j];

}

}

cout << "sum of all number is " << sum << endl;

avg = sum / 10;

}

void min\_thurs(int bus[4][5])

{

int j=0,min;

for (int i = 0; i < 4; i++)

{

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

{

min = bus[0][3];

if (min>bus[i][3])

{

min = bus[i][3];

j = bus[i][3];

}

}

}

cout << "minimum number in thusday is =" << min<<endl;

}

void avg(int bus[4][5])

{

int avg;

int sum = 0;

for (int i = 0; i < 4; i++)

{

for (int j = 0; j < 5; j++)

{

sum += bus[i][j];

}

avg = sum / 20;

}

cout <<"Average of all number " <<avg << endl;

}

int main()

{

int bus[4][5];

no\_of\_pass(bus);

number\_pass(bus);

total\_route(bus);

min\_thurs(bus);

avg(bus);

system("pause");

}