#include<iostream.h>

#include<conio.h>

void up()

{

int a[3][3],i,j;

cout<<"\n Enter the elements of Matrix A: ";

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

{

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

{

cin>>a[i][j];

}

}

cout<<"\n Elements of Upper Triangle are:\n ";

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

{

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

{

if(i<j)

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

}

}

}

void lo()

{

int a[3][3],i,j;

cout<<"\n Enter the elements of Matrix A: ";

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

{

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

{

cin>>a[i][j];

}

}

cout<<"\n Elements of Lower Triangle are:\n ";

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

{

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

{

if(i>j)

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

}

}

}

void di()

{

int a[3][3],i,j;

cout<<"\n Enter the elements of Matrix A: ";

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

{

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

{

cin>>a[i][j];

}

}

cout<<"\n Elements of Diagonals are:\n ";

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

{

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

{

if(i==j||i+j==2)

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

}

}

}

void main()

{

clrscr();

int choice;

cout<<"\n Enter 1 to see the Upper Triangle of Matrix.";

cout<<"\n Enter 2 to see the Lower Triangle of Matrix.";

cout<<"\n Enter 3 to see the Diagonal Elements of Matrix.";

cout<<"\n Enter your choice: ";

cin>>choice;

switch(choice)

{

case 1:clrscr();

up();

break;

case 2:clrscr();

lo();

break;

case 3:clrscr();

di();

break;

default:cout<<"\n Entered WRONG choice.";

break;

}

getch();

}