#include<iostream>

using namespace std;

void showboard()

{ int board[3][3];

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

{

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

{ board[i][j] = ' ';

cout<<board[i][j]; }

} }

void turn()

{

cout<<"choose cells from the matrix "<<endl;

showboard();

for(i=0;i<9;i++)

{

cin>>input[i];

while(input[i]<=9&&input[i]>=1)

{

if(input[i]==1||input[i]==9)

{

if(input[i]==1)

{

comp+=2;

board[1][2]==input[i];

computerboard[0][0]==comp;

}

else

{

comp+=8;

board[1][0]==input[i];

computerboard[3][3]==comp;

}

}

else if(input[i]>=2||input[i]<=8)

{

comp+=input[i];

if(input[i]==2) //that means computer is having 3

{

board[0][0]==input[i];

computerboard[2][1]==comp;

}

else if(input[i]==3)

{

board[2][1]==input[i];

computerboard[2][0]==comp;

}

else if(input[i]==4)

{

board[2][0]==input[i];

computerboard[1][1]==comp;

}

else if(input[i]==5)

{

board[1][1]==input[i];

computerboard[0][2]==comp;

}

else if(input[i]==6)

{

board[0][2]==input[i];

computerboard[0][1]==comp;

}

else if(input[i]==7)

{

board[0][1]==input[i];

computerboard[2][2]==comp;

}

else if(input[i]==8)

{

board[2][2]==input[i];

computerboard[1][0]==comp;

}

}

else

cout<<"enter another no this was filled by computer";

}

rowcross();

colcross();

diagcross();

rowcompcross();

colcompcross();

diagcompcross();

}

}

void win()

{if(turn==user)

cout<<"user has won";

else

cout<<"computer has won";

}

void rowcross() //if in any complete row any value is empty then not win because filled row is 15 only

{

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

{

if (board[i][0] != ' ')

cout<<win();

}

else

cout<<turn();

}

void rowcompcross()

{

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

{

if (computerboard[i][0] != ' ')

cout<<win();

}

else

cout<<turn();

}

void colcross()

{

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

{

if (board[0][i] != ' ')

cout<<win();;

}

else

cout<<turn();

}

void colcompcross()

{

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

{

if (computerboard[0][i] != ' ')

cout<<win();;

}

else

cout<<turn();

}

void diagcross()

{

if (board[0][0] != ' ')

cout<<win();

else if (board[0][2] != ' ')

cout<<win();

else

cout<<turn();

}

void diagcompcross()

{

if (computerboard[0][0] != ' ')

cout<<win();

else if (computerboard[0][2] != ' ')

cout<<win();

else

cout<<turn();

}

int main()

{

int user,comp=0;

int size=3, i, j, input[9], board[3][3], computerboard[3][3];

int b[3][3] = { {2,7,6} , {9,5,1} , {4,3,1} };

cout<<"The matrix is:"<<endl;

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

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

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

cout<<endl;

}

cout<<endl;

cout<<"turn of user, computer will occupy its place accordingly";

turn();

return 0;

}