Description:This C++ program on TIC TAC TOE GAME is a simple text based game. This program is without graphics to focus on logic /algorithm used in game. Two players can play this game.We use the basic format with grid numbers

The game is to be played between two people.

One of the players chooses ‘O’ and the other ‘X’ to mark their respective cells.

The game ends when a player has one whole row/ column/ diagonal filled with his/her respective character (‘O’ or ‘X’).

If no one wins, then the game is said to be draw.

We can create a 2 player Tic Tac Toe game in C++ language using Array, Function , True-False condition And loop statements

#include<iostream>

using namespace std;

main()

{int turn,gridno,i,choice;

char player1[15],player2[15];

char grid[9];

cout<<"\nThis is the basic format with grid numbers\n"<<endl;

cout<<" "<<"\_1\_"<<"|"<<"\_2\_"<<"|"<<"\_3\_"<<endl;

cout<<" "<<"\_4\_"<<"|"<<"\_5\_"<<"|"<<"\_6\_"<<endl;

cout<<" "<<" 7 "<<"|"<<" 8 "<<"|"<<" 9 "<<endl;

cout<<"\nPlease enter the name of player 1:"<<endl;

cin>>player1;

cout<<"\nPlease enter the name of player 2:"<<endl;

cin>>player2;

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

{

grid[i]=' ';

}

do{

gri1:

cout<<"\nPlayer 1's turn (SYMBOL-X)to choose a grid no.";

cin>>gridno;

if((grid[gridno-1]==' '))

grid[gridno-1]='X';

else if(grid[gridno-1]!=' ')

{

cout<<"\nThis grid is already filled, please enter again!\n";

goto gri1;

}

cout<<" "<<"\_"<<grid[0]<<"\_"<<"|"<<"\_"<<grid[1]<<"\_"<<"|"<<"\_"<<grid[2]<<"\_"<<endl;

cout<<" "<<"\_"<<grid[3]<<"\_"<<"|"<<"\_"<<grid[4]<<"\_"<<"|"<<"\_"<<grid[5]<<"\_"<<endl;

cout<<" "<<" "<<grid[6]<<" "<<"|"<<" "<<grid[7]<<" "<<"|"<<" "<<grid[8]<<" "<<endl;

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

{

if((grid[i]=='X')&&(grid[i+3]=='X')&&(grid[i+6]=='X'))

{

cout<<"\n"<<player1<<" wins the game!";

exit(1);

}

if(i==0)

{

if((grid[0]=='X')&&(grid[4]=='X')&&(grid[8]=='X'))

{

cout<<"\n"<<player1<<" wins the game";

exit(1);

}

}

if(i==2)

{

if((grid[2]=='X')&&(grid[4]=='X')&&(grid[6]=='X'))

{

cout<<"\n"<<player1<<" wins the game!";

exit(1);

}

}

}

for(i=0;i<7;i=i+3)

{

if((grid[i]=='X')&&(grid[i+1]=='X')&&(grid[i+2]=='X'))

{

cout<<"\n"<<player1<<" 1 wins the game!";

exit(1);

}

}

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

{

if(grid[i]==' ')

{

choice=1;

break;

}

else

{

choice=0;

}

}

if(i==9)

goto gri3;

gri2:

cout<<"\nPlayer 2's turn (SYMBOL-O) to choose a grid no.";

cin>>gridno;

if((grid[gridno-1]==' '))

grid[gridno-1]='O';

else if(grid[gridno-1]!=' ')

{

cout<<"\nThis grid is already filled, please enter again!\n";

goto gri2;

}

cout<<" "<<"\_"<<grid[0]<<"\_"<<"|"<<"\_"<<grid[1]<<"\_"<<"|"<<"\_"<<grid[2]<<"\_"<<endl;

cout<<" "<<"\_"<<grid[3]<<"\_"<<"|"<<"\_"<<grid[4]<<"\_"<<"|"<<"\_"<<grid[5]<<"\_"<<endl;

cout<<" "<<" "<<grid[6]<<" "<<"|"<<" "<<grid[7]<<" "<<"|"<<" "<<grid[8]<<" "<<endl;

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

{

if((grid[i]=='O')&&(grid[i+3]=='O')&&(grid[i+6]=='O'))

{

cout<<"\n"<<player2<<" wins the game!";

exit(1);

}

if(i==0)

{

if((grid[0]=='O')&&(grid[4]=='O')&&(grid[8]=='O'))

{

cout<<"\n"<<player2<<" wins the game!";

exit(1);

}

}

if(i==2)

{

if((grid[2]=='O')&&(grid[4]=='O')&&(grid[6]=='O'))

{

cout<<"\n"<<player2<<" wins the game!";

exit(1);

}

}

}

for(i=0;i<7;i=i+3)

{

if((grid[i]=='O')&&(grid[i+1]=='O')&&(grid[i+2]=='O'))

{

cout<<"\n"<<player2<<" wins the game!";

exit(1);

}

}

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

{

if(grid[i]==' ')

{

choice=1;

break;

}

else

choice=0;

}

gri3:cout<<"";

}while(choice);

cout<<"\nIt's a draw game!";

}

