



Sample: Java JSP JSF - Tictactoe

```
/*
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 */
package tictactoe;

import java.util.Scanner;

/**
 *
 *
 */
public class TicTacToe {

    /**
     * @param args the command line arguments
     */
    public static void main(String[] args) {
        // TODO code application logic here

        boolean done = false;
        Scanner in = new Scanner(System.in);
        while (!done) {
            TicTacToes game = new TicTacToes();
            game.play();

            System.out.println("do you want to play again(Yes,No)?");
            String input = in.next();
            if (input.equalsIgnoreCase("no")) {
                done = true;
            }
        }
        System.out.println("Thank you come again!!!");
    }
}
```



```
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 */
package tictactoe;

import java.util.Scanner;

public class TicTacToes {
    //two dimensional array of the tic tac toe board

    private enum Cell {

        T, X, O
    };
    private Cell[][] board = new Cell[3][3];
    private int [][] mark = new int[3][3]; //step marker
    private Scanner input = new Scanner(System.in);
    private int moveOne; //not use
    private int moveTwo; //not use
    private int player = 2;
    private int count = 1;
    private int row;
    private int col;

    public TicTacToes() {
        //set all cells to T
        for (int i = 0; i < 3; i++) {
            for (int j = 0; j < 3; j++) {
                board[i][j] = Cell.T;
            }
        }
    }
}
```



```
//This method will insert an X or O in the selected cell

public void setTicTacToe() {
//get the row and column selected by the player
    if (player == 1) {
        board[row][col] = Cell.X;
        mark[row][col]=count;
    }
    if (player == 2) {
        board[row][col] = Cell.O;
        mark[row][col]=count;
    }
}

//This method displays the current board game
//with Ts, Xs, and Os

public void getTicTacToe() {
    System.out.println(" 0 1 2");
    for (int row = 0; row < 3; row++) {
        System.out.print(row);
        for (int col = 0; col < 3; col++) {
            System.out.print("[ " + board[row][col] + "]" + mark[row][col]); // prints paired brackets for every
            array element
        }
        System.out.println(); // prints rows on separate lines
    }
}

//This method changes players and displays
//a message of whos turn it is

public void setPlayer( int player) {
    this.player=player;
}

//Your code here
}
```



```
// public int getPlayer()
// {
// return player;
// }
//

//This method get a valid row number
public void setRow(int row) {
    this.row=row;
//Your code here
}

public int getRow() {
    return row;
}

////This method get a valid Col number

public void setCol(int col) {
    ///Your code here
    this.col=col;
}

public int getCol() {
    return col;
}

private boolean cellsEmpty() {
    for (int i = 0; i < 3; i++) {
        for (int j = 0; j < 3; j++) {
            if (board[i][j] == Cell.T) {
                return true;
            }
        }
    }
}
```




```
        System.out.println("Retry input");
    }
    System.out.println("Enter col");//test input col
    while ((bufCol=input.nextInt())>=3){
        System.out.println("Retry input");
    }

    this.setRow(bufRow);//set value from buf variables
    this.setCol(bufCol);

//Your Code here
    while (board[getRow()][getCol()] != Cell.T) { //test board row and col ,they must be equal Cell.T
        System.out.println("Please enter new value row and col ");
        getTicTacToe();
        System.out.println("Enter row");
        while((bufRow=input.nextInt())>=3){ //test input row
            System.out.println("Retry input");
        }
        System.out.println("Enter col");
        while ((bufCol=input.nextInt())>=3){ //test input col
            System.out.println("Retry input");
        }

        this.setRow(bufRow);
        this.setCol(bufCol);
    }

    setTicTacToe();//set value X or O
    count++;

}
getTicTacToe();
if (win() == true) {
```



```
        System.out.printf("\n\nGame Over. Player %d won!!!", player);
    } else {
        System.out.printf("\n\nOh no! It's a tie. :(");
    }
}
}
```