public class IndObl{

public String nume

public **static((e atasat tipologiei)**) int nr Indicatoare

EXEMPLU:

**TIC TAC TOE**

**package** xsizero;  
  
**public class** Xsizero **{  
 public static int** *n* = **3**;  
 **public static int[][]***game* = **new int[***n***][***n***]**;;  
  
 **public static** String *player1*;  
 **public static** String *player2*;  
  
 **static void printGame (){** System.*out*.println**(*"-------"*)**;  
 **for(int *i*** = **0**; ***i*** < *n*; ***i*** ++**){  
 for(int *j*** = **0**; ***j*** < *n*; ***j*** ++**){** System.*out*.print**(*"|"***+*game***[*i*][*j*])**;  
 **}** System.*out*.println**(*"|"*)**;  
 System.*out*.println**(*"-------"*)**;  
 **}  
  
 }  
  
 public static void main(**String**[] *args*) {** System.*out*.println**(*"Tic Tac Toe "*)**;  
 ***printGame*()**;  
  
  
 **}  
}**

**X SI ZERO**

**public static final** String *SIGN\_X* =

* Constantele se scriu cu litere mari in Java
* **package** xsizero;  
  **import** java.util.Scanner;  
    
  **public class** Xsizero **{  
   public static int** *n* = **3**;  
   **public static int[][]***game* = **new int[***n***][***n***]**;;  
    
   **static boolean** *win* = **false**;  
   **static boolean** *finished* = **false** ;  
    
    
  *// jucatorul X* **public static** String *player1*;  
  *// jucatorul 0* **public static** String *player2*;  
    
   **public static final** String *SIGN\_X* = ***"X"***;  
   **public static final** String *SIGN\_0* = ***"0"***;  
    
   **static** String **boxSign(int *value*) {  
   if (2** == ***value*) {  
   return** *SIGN\_0*;  
    
   **} else if (1** == ***value*) {  
   return** *SIGN\_X*;  
   **} else {  
   return *" "***;  
   **}  
   }  
   public static int boxValue(**String ***sign*){  
   if(***SIGN\_X* == ***sign*) {  
   return 1**;  
   **}else if (***SIGN\_0* == ***sign*) {  
   return 2**;  
   **} else {  
   return 0**;  
   **}  
   }  
   public static** String **getPlayerSign(**String ***player*) {  
   if(***player1* == ***player*){  
   return** *SIGN\_X*;  
   **}else {  
   return** *SIGN\_0*;  
   **}  
   }  
   static void printGame (){** System.*out*.println**(*"-------"*)**;  
   **for(int *i*** = **0**; ***i*** < *n*; ***i*** ++**){  
   for(int *j*** = **0**; ***j*** < *n*; ***j*** ++**){** String ***sign*** = ***boxSign*(***game***[*i*][*j*])**;  
   System.*out*.print**(*"|"***+***sign*)**;  
   **}** System.*out*.println**(*"|"*)**;  
   System.*out*.println**(*"-------"*)**;  
   **}  
    
   }  
    
   public static void main(**String**[] *args*) {** System.*out*.println**(*"Tic Tac Toe "*)**;  
   Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
    
   System.*out*.println**(*"Numele jucatorului X "*)**;  
   *player1* = ***scanner***.nextLine**()**;  
   System.*out*.println**(*"Numele jucatorului 0 "*)**;  
   *player2* = ***scanner***.nextLine**()**;  
    
   System.*out*.println**(*"Numele jucatorilor sunt "*** +*player1*+ ***" si "*** +*player2*+ ***"."*)**;  
    
   ***printGame*()**;  
   String ***currentPlayer*** = *player1*;  
   **int *nrOfMoves*** = **0**;  
   **while(**!**(***win* || *finished***)) {***// play game* System.*out*.println**(*"Jucatorul "*** + ***currentPlayer*** + ***" muta"*)**;  
  *// jucatorul face mutarea* System.*out*.println**(*" linia: "*)**;  
   **int *mLine*** = ***scanner***.nextInt**()**;  
   System.*out*.println**(*" coloana: "*)**;  
   **int *mCol*** = ***scanner***.nextInt**()**;  
    
   String ***currentPlayerSign*** = ***getPlayerSign*(*currentPlayer*)**; *// testam daca numele jucatorului e player1 returnez x, iar daca nu, e 0  
  // determinam ce valoare trebuie sa punem in matrice(1 sau 2)* **int *valueOfMove*** = ***boxValue*(*currentPlayerSign*)**;  
  *// efectuam mutarea  
   game***[*mLine*][*mCol*]** =***valueOfMove***;  
   ***nrOfMoves***++;  
  *// win = test pentru win  
  // finished = test pentru finished* **if(*nrOfMoves*** == **(***n*\**n***)) {** *// numarul de posibilitati disponibile 9 sau n\*n  
   finished* = **true**;  
   **}  
   *printGame*()**;  
  *// testam daca are sens sa schimbam jucatorul* **if(**!**(***win*|| *finished***)) {***// schimbam jucatorul* **if (*currentPlayer*** == *player1***) {  
   *currentPlayer*** = *player2*;  
   **} else {  
   *currentPlayer*** = *player1*;  
   **}  
   }  
   }  
   }  
  }**

**Pentru linie**

isWinLine (int lineNr, int value) {

boolean winL = true;

int i = 0;

while (winL ==true && i< n){

if(game[lineNr][i] != value){

winL = false;

}

i++;

} return win;

**Pentru coloana**

public static boolean isWinCol (int colNr, int value) {

boolean winC = true;

int i = 0;

while (winC == true && i<n) {

if(game[i][colNr]!= value) {

winC = false;

}

i++;

} return winC;

**Pentru diagonala**

public static boolean isWinDiags (int value) {

boolean winD = true;

int i = 0;

while(winD = = true && i < n) {

if(game[i][i]!= value) {

winD = false;

}

i++;

}return winD;

**Pentru diagonale, linii și coloane**

**package** xsizero;  
**import** java.util.Scanner;  
  
**public class** Xsizero **{  
 public static int** *n* = **3**;  
 **public static int[][]** *game* = **new int[***n***][***n***]**;  
 ;  
  
 **static boolean** *win* = **false**;  
 **static boolean** *finished* = **false**;  
  
  
 *// jucatorul X* **public static** String *player1*;  
 *// jucatorul 0* **public static** String *player2*;  
  
 **public static final** String *SIGN\_X* = ***"X"***;  
 **public static final** String *SIGN\_0* = ***"0"***;  
  
 **static** String **boxSign(int *value*) {  
 if (2** == ***value*) {  
 return** *SIGN\_0*;  
  
 **} else if (1** == ***value*) {  
 return** *SIGN\_X*;  
 **} else {  
 return *" "***;  
 **}  
 }  
  
 public static int boxValue(**String ***sign*) {  
 if (***SIGN\_X* == ***sign*) {  
 return 1**;  
 **} else if (***SIGN\_0* == ***sign*) {  
 return 2**;  
 **} else {  
 return 0**;  
 **}  
 }  
  
 public static** String **getPlayerSign(**String ***player*) {  
 if (***player1* == ***player*) {  
 return** *SIGN\_X*;  
 **} else {  
 return** *SIGN\_0*;  
 **}  
 }  
  
 static void printGame() {** System.*out*.println**(*"-------"*)**;  
 **for (int *i*** = **0**; ***i*** < *n*; ***i***++**) {  
 for (int *j*** = **0**; ***j*** < *n*; ***j***++**) {** String ***sign*** = ***boxSign*(***game***[*i*][*j*])**;  
 System.*out*.print**(*"|"*** + ***sign*)**;  
 **}** System.*out*.println**(*"|"*)**;  
 System.*out*.println**(*"-------"*)**;  
 **}  
 }** *// verificam daca linia este castigatoare* **public static boolean isWinLine(int *lineNr***, **int *value*) {  
 boolean *winL*** = **true**;  
 **int *i*** = **0**;  
 **while (*winL*** == **true** && ***i*** < *n***) {  
 if (***game***[*lineNr*][*i*]** != ***value*) {  
 *winL*** = **false**;  
 **}  
 *i***++;  
 **}  
 return *winL***;  
  
 **}** *// verifica daca o coloana este castigatoare* **public static boolean isWinCol(int *colNr***, **int *value*) {  
 boolean *winC*** = **true**;  
 **int *i*** = **0**;  
 **while (*winC*** == **true** && ***i*** < *n***) {  
 if (***game***[*i*][*colNr*]** != ***value*) {  
 *winC*** = **false**;  
 **}  
 *i***++;  
 **}  
 return *winC***;  
 **}** *// verificam daca diagonalele sunt castigatoare(principala si secundara)* **public static boolean isWinDiags(int *value*) {  
 boolean *winD1*** = **true**;  
 **boolean *winD2*** = **true**;  
 **int *i*** = **0**;  
 **while ((*winD1*** == **true** || ***winD2*** == **true)** && ***i*** < *n***) {  
 if (***game***[*i*][*i*]** != ***value*) {  
 *winD1*** = **false**;  
 **}  
 if (***game***[*i*][***n* - **1** - ***i*]** != ***value*) {  
 *winD2*** = **false**;  
 **}  
 *i***++;  
 **}  
 return (*winD1*** || ***winD2*)**;  
 **}  
  
 public static boolean isWin(int *value*) {  
 boolean *gameWin*** = **false**;  
*// testam linii* **int *i*** = **0**;  
 **while (*i*** < *n* && **false** == ***gameWin*) {  
 *gameWin*** = ***isWinLine*(*i***, ***value*)**;  
 ***i***++;  
 **}***// testam coloane* ***i*** = **0**;  
 **while (*i*** < *n* && **false** == ***gameWin*) {  
 *gameWin*** = ***isWinCol*(*i***, ***value*)**;  
 ***i***++;  
 **}***// testam diagonale* **if (false** == ***gameWin*) {  
 *gameWin*** = ***isWinDiags*(*value*)**;  
  
 **}  
 return *gameWin***;  
  
  
 **}  
  
  
 public static void main(**String**[] *args*) {** System.*out*.println**(*"Tic Tac Toe "*)**;  
 Scanner ***scanner*** = **new** Scanner**(**System.*in***)**;  
  
 System.*out*.println**(*"Numele jucatorului X "*)**;  
 *player1* = ***scanner***.nextLine**()**;  
 System.*out*.println**(*"Numele jucatorului 0 "*)**;  
 *player2* = ***scanner***.nextLine**()**;  
  
 System.*out*.println**(*"Numele jucatorilor sunt "*** +*player1*+ ***" si "*** +*player2*+ ***"."*)**;  
  
 ***printGame*()**;  
 String ***currentPlayer*** = *player1*;  
 **int *nrOfMoves*** = **0**;  
 **while(**!**(***win* || *finished***)) {***// play game* System.*out*.println**(*"Jucatorul "*** + ***currentPlayer*** + ***" muta"*)**;  
*// jucatorul face mutarea* System.*out*.println**(*" linia: "*)**;  
 **int *mLine*** = ***scanner***.nextInt**()**;  
 System.*out*.println**(*" coloana: "*)**;  
 **int *mCol*** = ***scanner***.nextInt**()**;  
  
 String ***currentPlayerSign*** = ***getPlayerSign*(*currentPlayer*)**; *// testam daca numele jucatorului e player1 returnez x, iar daca nu, e 0  
// determinam ce valoare trebuie sa punem in matrice(1 sau 2)* **int *valueOfMove*** = ***boxValue*(*currentPlayerSign*)**;  
*// efectuam mutarea  
 game***[*mLine*][*mCol*]** =***valueOfMove***;  
 ***nrOfMoves***++;  
*// win = test pentru win  
 win* = ***isWin*(*valueOfMove*)**;  
*// finished = test pentru finished* **if(*nrOfMoves*** == **(***n*\**n***)) {** *// numarul de posibilitati disponibile 9 sau n\*n  
 finished* = **true**;  
 **}  
 *printGame*()**;  
*// testam daca are sens sa schimbam jucatorul* **if(**!**(***win*|| *finished***)) {***// schimbam jucatorul* **if (*currentPlayer*** == *player1***) {  
 *currentPlayer*** = *player2*;  
 **} else {  
 *currentPlayer*** = *player1*;  
 **}  
 }  
 }  
 if(true** == *win***) {** System.*out*.println**(*"Jucatorul "*** + ***currentPlayer***+ ***" este castigator."*)**;  
 **}else {  
 if(true** == *finished***) {** System.*out*.println**(*" Remiza!"*)**;  
 **}  
 }  
 }  
}**