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package com.company;

import java.util.Arrays;
import java.util.Scanner;

class OX {
    private final char[] player = new char[2];
    private final char[][] board_array = new char[3][3];
    private int turn_count;

    public OX() {
        this.player[0] = 'O';
        this.player[1] = 'X';
        this.turn_count = 0;
        for (int i = 0; i < 3; i++) {
            for (int j = 0; j < 3; j++) {
                this.board_array[i][j] = ' ';
            }
        }
    }

    public void add_position(boolean numpad) {
        input_processor pos = new input_processor();
        pos.input_checker();
        int x = (pos.get_position(numpad) - 1) % 3;
        int y = (pos.get_position(numpad) - 1) / 3;
        if (this.board_array[y][x] == ' ') {
            this.board_array[y][x] = this.player[0];
            this.turn_count++;
            this.change_player();
        } else
            System.out.println("Can not put mark on same position");
    }

    public void change_player() {
        char swapplayer = this.player[0]; // swapplayer = O
        this.player[0] = this.player[1]; // player[0] = O --> X ,
player[1] = X
        this.player[1] = swapplayer; // player[1] = X --> O
    }

    public boolean[] check_winner() {
        char[] check_list2 = new char[3];
        char[] check_list3 = new char[3];
        boolean[] result = {false, false}; //[0] เพื่อหยุดการทำงาน , [1] แสดง
ว่าเสมอ
        char[] listofO = {'O', 'O', 'O'};
        char[] listofX = {'X', 'X', 'X'};
        for (int i = 0; i < 3; i++) {
            check_list2[i] = this.board_array[i][i];
            check_list3[i] = this.board_array[i][2 - i];
            for (int j = 0; j < 3; j++) {
                if (Arrays.equals(this.board_array[j], listofO) ||
Arrays.equals(this.board_array[j], listofX)) {
                    result[0] = true;
                    return result;
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                }
            }
            if (this.board_array[0][0] == this.board_array[1][0]
                    && this.board_array[1][0] == this.board_array[2]
[0] && this.board_array[0][0] != ' ') {
                result[0] = true;
                return result;
            } else if (this.board_array[0][1] == this.board_array[1]
[1]
                    && this.board_array[1][1] == this.board_array[2]
[1] && this.board_array[0][1] != ' ') {
                result[0] = true;
                return result;
            } else if (this.board_array[0][2] == this.board_array[1]
[2]
                    && this.board_array[1][2] == this.board_array[2]
[2] && this.board_array[0][2] != ' ') {
                result[0] = true;
                return result;
            }
        }
        if (Arrays.equals(check_list2, listofX) ||
Arrays.equals(check_list2, listofO)) {
            result[0] = true;
            return result;
        }
        if (Arrays.equals(check_list3, listofX) ||
Arrays.equals(check_list3, listofO)) {
            result[0] = true;
            return result;
        }
        if (this.turn_count == 9) {
            result[0] = true;
            result[1] = true;
            return result;
        }
        return result;
    }

    public void display_board() {
        System.out.println(board_array[0][0] + " | " + board_array[0]
[1] + " | " + board_array[0][2]);
        System.out.println(board_array[1][0] + " | " + board_array[1]
[1] + " | " + board_array[1][2]);
        System.out.println(board_array[2][0] + " | " + board_array[2]
[1] + " | " + board_array[2][2]);
    }

    public static void main(String[] args) {
        OX game_ox = new OX();
        System.out.print("Numpad (true/false) : ");
        Scanner scanner = new Scanner(System.in);
        String checknumpad = scanner.next();
        game_ox.display_board();
        boolean numpad;
        if (checknumpad.equals("true"))
            numpad = true;
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            else
                numpad = false;
            while (!game_ox.check_winner()[0]) {
                System.out.println("This is " + game_ox.player[0] + "
turn");
                game_ox.add_position(numpad);
                game_ox.display_board();
                if (game_ox.check_winner()[1]) {
                    System.out.println("DRAW");
                } if (game_ox.check_winner()[0])
                    System.out.println(game_ox.player[1] + " is the
winner");
            }
        }
    }

class input_processor {
    private final int[][] numpadArray = {{7, 8, 9}, {4, 5, 6}, {1, 2,
3}};
    private int Position = 0;
    public void input_checker() {
        while (true) {
            try {
                System.out.print("Please enter your position : ");
                Scanner scanner = new Scanner(System.in);
                String userinput = scanner.next();
                int INPUT = Integer.parseInt(userinput);
                if (0 < INPUT && INPUT < 10) {
                    this.Position = INPUT;
                    break;
                }
            } catch (Exception e) {
                System.out.println("Please enter again");
            }
        }
    }

    public int get_position(boolean numpad) {
        if (numpad) {
            int x = (this.Position - 1) % 3;
            int y = (this.Position - 1) / 3;
            return this.numpadArray[y][x];
        } else {
            return this.Position;
        }
    }

}
```