

Introduction to Python

Assignment No. 2

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1. Introduction

The task was to implement a game *Connect 4* with python. It is played through terminal. There are two players who play round by round until one of the players won or the game board is filled - nobody wins. The purpose of the game is to match 4 or more player tokens horizontally, vertically or diagonally.

2. Methods

The configuration file `configs.txt` is provided to configure the game. Game field width, height and player token symbols are declared in this file. The game board configuration was implemented in exercise 5. The board representation has separators to separate the fields which will be filled with player token symbols. Depending on the proportions of a symbol the walls of the cell are drawn using separator symbols “-” and “|”. The game board is drawn in a method `createGameField()`.

Validity of the symbols is checked using a method `checkValid()`. The symbol is valid if it has correct proportions (a x a). Length and height are equal.

In exercise 6 the game was implemented. `gameTurn` method implements how each turn works. First it is checked whether a correct column (if it exists and if it is full) was provided by the player, if not the `gameTurn` function is called recursively and player is asked to enter a different column.

During a turn the player token is placed on the board, as well as in game tracking board which stores the number of player in the player tracking table matching cell.

After each turn it is checked whether the game continues. That is whether there is a winner or the board is full and there is no winner.

3. Play the game

To play the game you have to write your wanted configurations into configuration file `configs.txt` (or use the provided one).

Run the python script to start the game:

```
python3 ex6.py
```

The game starts. Player 1 and 2 one by one are asked to enter the column. The column must be of correct data type - int.

Round by round game is played until a winner is declared or the board is full.

4. Information

Exercises 5 and 6 are fully implemented. Features of exercises 7 and 8 are missing.