ET721 – Software development practicum

**Unit test project: Drop chip game**

*Part 1: Analyzing the Connect4 Class in main.py*

Student’s name:

**Learning outcome:** The objective of this project is to thoroughly analyze the Connect4 class defined in the main.py file. This process will involve examining the functionality of each method within the class, running them independently, and understanding how each behaves in isolation. The analysis will include modifying class values, observing the impact of these changes, and documenting findings.

**Steps to Complete the Analysis:**

1. **Access the main.py file**: Open and review the contents of the file to familiarize yourself with the class structure.
2. **Download the file unit\_test\_project\_part1.docx**: This document will be used to record your observations, changes made to the class, and results obtained from running the class.
3. **Analyze each class**:
   * Run the class independently.
   * For each method, understand how it works by testing its functionality.
   * Make modifications to some values in the class and observe how these changes affect the behavior of the class and the game logic.
4. **Document the analysis**: In the Word document (unit\_test\_project\_part1.docx):
   * Record how each method behaves when run.
   * Note the modifications made (e.g., changing player symbols, adjusting the board size, etc.).
   * Describe the outcome of these changes and any other observations regarding the class’s behavior.
5. **Conclude the analysis**: Summarize the key takeaways from the modifications and their effects on the game’s mechanics.

**Python class analysis:**

1. **\_\_init\_\_(self)**

Description:

Setting up the table for rows and columns.

Changes and observations:

Observation 1:

To change the amount of rows and columns in the table this has to be declared in the connect 4 class

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Observation 2:

When the table size is changed in the connect4 class the amount that is printed will only change in the print function.

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Observation 3:

The self. board is used to make the table by telling it to put in rows and column ranges.

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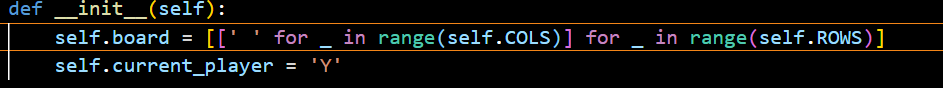
A screen shot of a game

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Observation 4:

You can change the name of the players.

Example: from x to y.



1. **switch\_player(self)**

Description:

Changes and observations:

1. **print\_board(self)**

Description:

Changes and observations:

1. **drop\_chip(self, column)**

Description:

Changes and observations:

1. **check\_win(self, player)**

Description:

Changes and observations:

1. **play\_game(self)**

Description:

Changes and observations:

**Conclude the analysis:**