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TRACES OF EXECUTION

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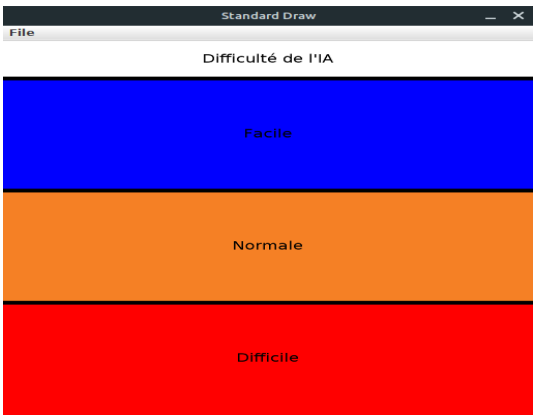
07/01/2022

As soon as the program is launched,it ask us to choose between playing in duo (on the same computer) or against the AI. If we play against the IA, we will have a choice between “Easy”,”Normal” and “Hard”. The “Normal” IA, won’t be used because the “Hard” IA is an upgraded version of the “Normal” IA.



1st algorithm

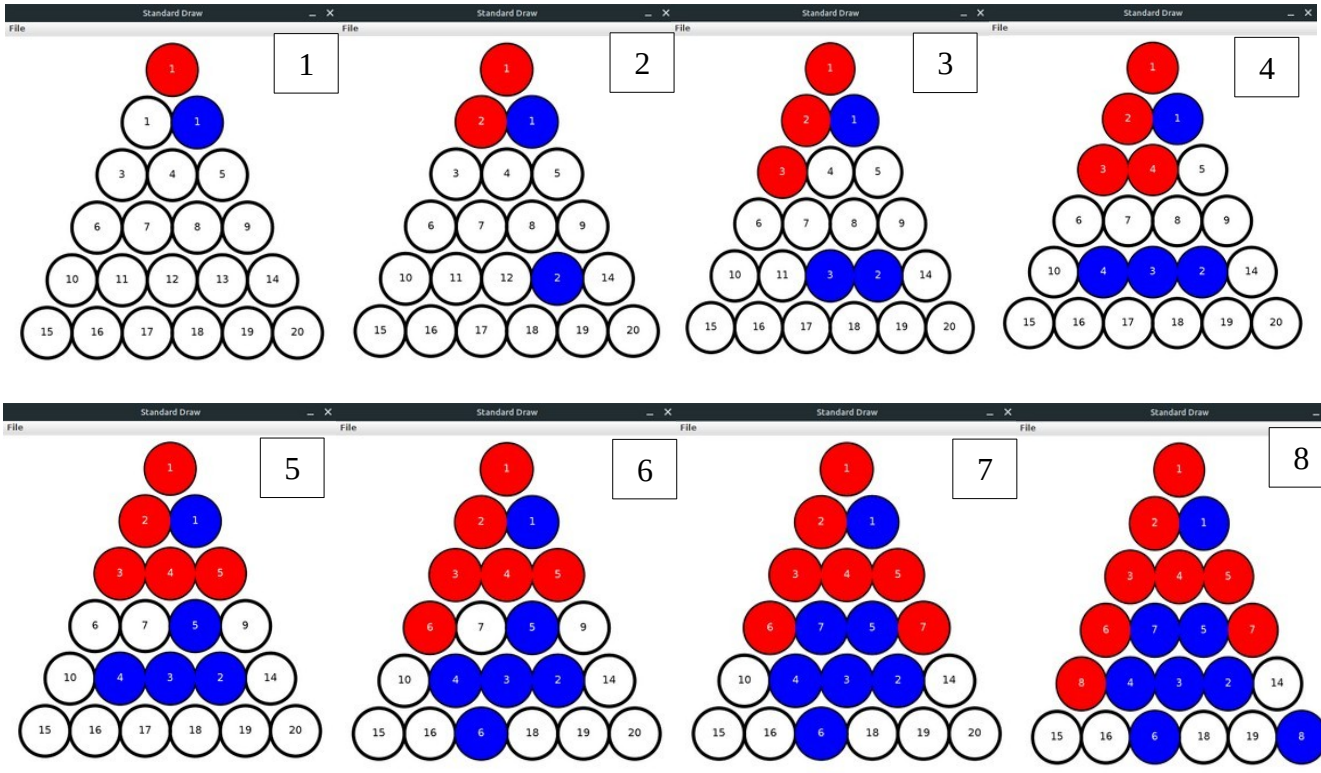
Initialization

This initialization is executed after clicking on the "Easy" box. Indeed, the "Easy" AI corresponds to the simplest algorithm: select the first available empty box.

Game

At each stage, the player chooses where to place his token and then places it. It is the AI's turn:

The method iaRouge() is called, it will select the first available empty square, as we can see on the pictures below.



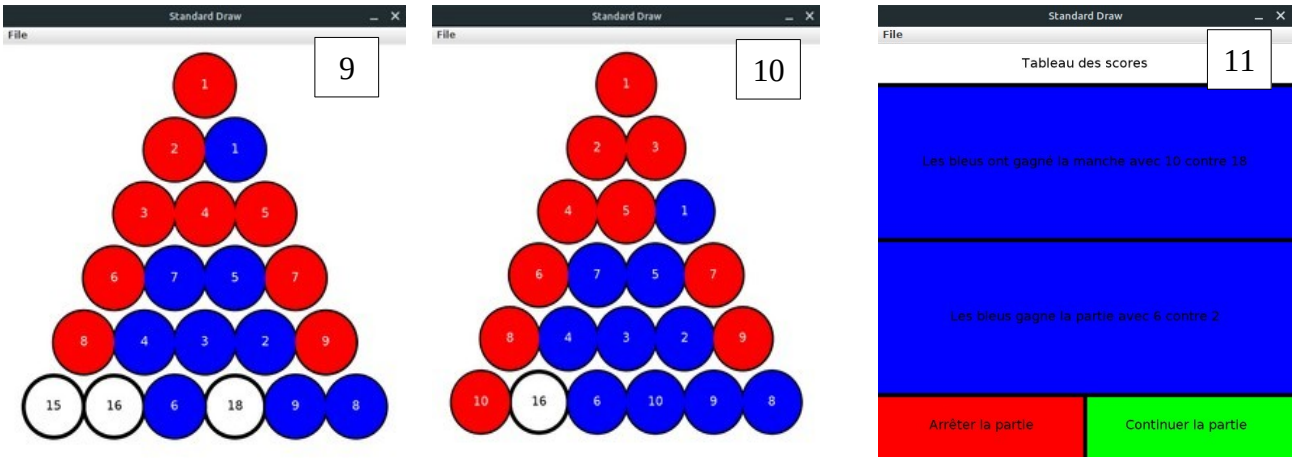


Figure 1: Results Screen

The Results Screen call the method scoreStdDraw(), it displays sentences to tell who win the game, and also two buttons : “Quit” or “Restart”.

2nd algorithm

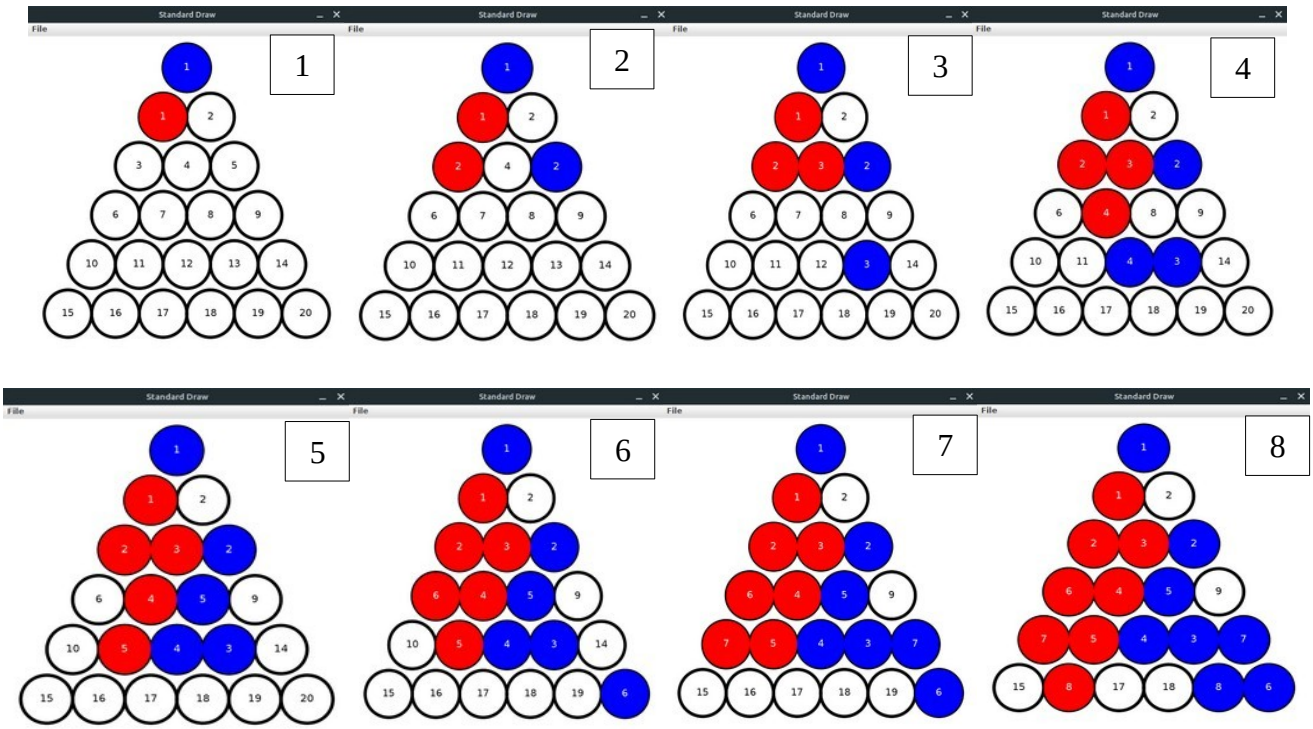
Initialization

This initialization is performed after clicking on the "Difficult" box. Indeed, the AI "Difficult" corresponds to the most complex algorithm: select the square where it loses.

Game

At each stage, the player chooses where to place his token and then places it. It is the AI's turn:

The method iaRouge2() is called : for each boxes, it will calculate the sum of the red neighboring boxes and the player's neighboring boxes, and it will place a token when his sum is higher than the opponent's.



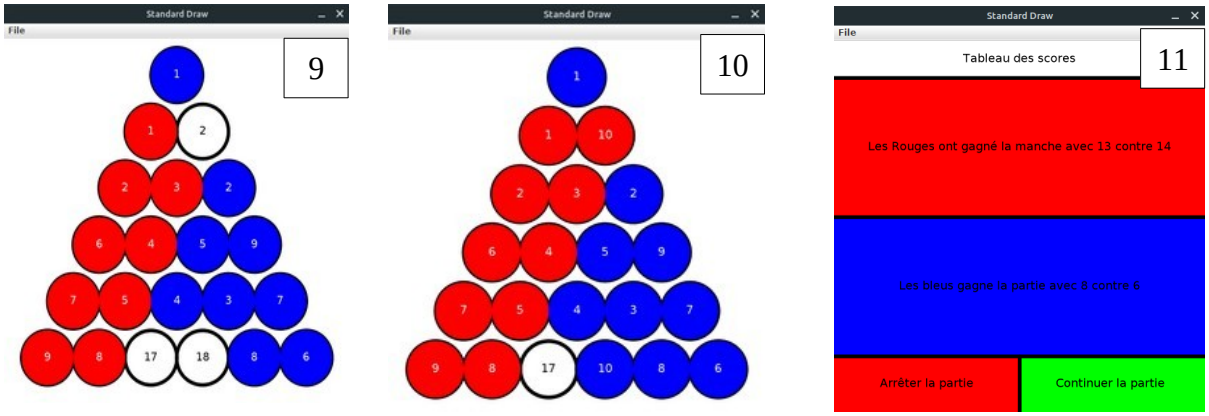


Figure 2: Results Screen 2

The Results Screen call the method scoreStdDraw(), it displays sentences to tell who win the game, and also two buttons : “Quit” or “Restart”.