# Python Programming - Projects

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## **Project List**

This is the list of projects that you have to do for the **28th of november**. Choose in this list, this one that you prefer. To do it you will create a team of two persons.

- 1. Black and White : two players, two colors black and white each player has 10 pawns. The grid to play has a size of 10X10 boxes. At each turn, each player has to put one pawn on the grid following this rule : a new pawn has to enclose a set of pawns of the another color and the consequence is that all pawns belonging to this set exchange its color by the other one. The game is over when one of the player cannot put any pawn in the grid or when there are no more place or if one player is not able to play. The winner is this one with the maximum number of pawns of his own color in the grid.
- 2. Cross and Set : two players, two symbols cross and circle. The grid to play has a size of 10X10 boxes. At each turn, each player has to put his symbol into one box, when he has ligned up 3 identical symbols, his counter is increased by 1. The game is over when no more free boxes are available. The winner is this one with the max value on the counter.

### Work to do

- For each project, you will deliver the python code and a small resume of your work which explains your choices and how the program run.
- The code will be sent with the text resume at beurton@labri.fr
- Before the deadline, you will meet the advisor one time send a message in advance to ask when you want to come.
- Feel free to send email to ask question if you need.

#### Some details about the way to do

- We are waiting for a non-graphical game. You will use only command line and ASCII character to display the grid.
- The code has to run in the Cremi environment you are authorized to use Python version which are available in this one.
- You can suggest some improvements as different levels for playing and/or a single playing, i.e. the player fights against the computer.