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**Faculty of Informatics and Computer Science**

**Logic and Artificial Intelligence**

Connect Four

using minimax algorithm

***Presented by***

**BUE, El-Sherouk City, Cairo, Egypt**

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# Problem Description and Background:

Designing and implementing A ”Connect Four” game which the player have to collect at least four coins from the same color even if it is in diagonal or at the same line

# Software and Tools used to accomplish this project:

The language we will use is Python so we will include the internal libraries needed to help us.

As we will use Jupitar Notebook as an online Compiler.

# Resources found (books, tutorials, etc.):

<https://www.youtube.com/watch?v=MMLtza3CZFM>

<https://www.youtube.com/watch?v=8392NJjj8s0>

[www.FreeCodeCamp.com](http://www.FreeCodeCamp.com)

# PAGE:

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| --- | --- | --- | --- |
| **Preceptors** | **Actions** | **Goals** | **Environment** |
| Gaming Board |  |  | PC |
| Player’s coin | Place coin | Place 4 coins to win and prevent the agent from winning him | Gaming Board |
| Agent’s Coin | Place coin | Place 4 coins to win and prevent the player from winning | Gaming Board |

# PEAS:

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| --- | --- | --- | --- |
| **Performance Measure** | **Environment** | **Actuators** | **Sensors** |
| Place 4 bits connected to each other at a diagonal or incline position | Game Board, Agent’s coin, Player’s Coin | Coin Placing func | - |
| Prevent player from winning | Game Board, Agent’s coin, Player’s Coin | Coin Placing func | Access to the current gaming board state |