

# Classes

## **Player:**

Attributes:

- name: string
- symbol: string
- is\_ai: boolean

Methods:

- \_\_init\_\_(name: string, symbol: string, is\_ai: boolean = False)
- get\_move(board: Board) -> int
- get\_human\_move(board: Board) -> int
- get\_ai\_move(board: Board) -> int
- minimax(board: Board, player: string, is\_maximizing: boolean) -> (int, int or None)

## **Board:**

Attributes:

- board: list of strings

Methods:

- \_\_init\_\_()
- reset()
- display\_board()
- update\_board(choice: int, symbol: string) -> boolean
- is\_valid\_move(choice: int) -> boolean
- is\_full() -> boolean
- check\_win(symbol: string) -> boolean

**Menu:**

## Methods:

- display\_main\_menu() -> string
- display\_endgame\_menu() -> string

**Game:**

## Attributes:

- board: Board
- menu: Menu

## Methods:

- \_\_init\_\_()
- start\_game()
- play\_game(ai\_opponent: boolean)
- play\_turn(player: Player)
- check\_game\_over(player: Player) -> boolean
- choose\_symbol(name: string) -> string
- quit\_game()