

```

class MancalaBoard:
    def __init__(self):
        # Initialize the board with 4 stones in each of the 12 pits and 0 in each store
        self.board = [4]*6 + [0] + [4]*6 + [0]

    def display(self):
        # Display the board visually for both players
        print("\nBoard:")
        print("P2 Score: ", self.board[13])
        print("P2: " + '-'*29)
        print("P1: " + ''.join(str(x) for x in self.board[0:6]))
        print("P1 Score: ", self.board[6], "\n")

    def move(self, pit):
        # Determine the player based on the pit chosen
        player = 1 if pit < 6 else 2
        stones = self.board[pit]
        self.board[pit] = 0
        index = pit

        while stones > 0:
            index = (index + 1) % 14
            if (player == 1 and index != 13) or (player == 2 and index != 6): # Skip the opponent's store
                self.board[index] += 1
            stones -= 1

        # Capture mechanics
        if self.board[index] == 1 and self.board[12-index] > 0 and (player == 1 and 0 <= index < 6 or player == 2 and 7 <= index < 13):
            self.board[6 if player == 1 else 13] += self.board[12-index] + 1
            self.board[index] = self.board[12-index] = 0

        # Check if the game has ended
        if all(x == 0 for x in self.board[:6]) or all(x == 0 for x in self.board[7:13]):
            self.end_game()

    def end_game(self):
        # Move all remaining stones to the respective stores
        self.board[6] += sum(self.board[:6])
        self.board[13] += sum(self.board[7:13])
        self.board[:6] = [0] * 6
        self.board[7:13] = [0] * 6
        print("Game Over")
        self.display()
        winner = "Player 1" if self.board[6] > self.board[13] else "Player 2"
        print(f"{winner} wins!")
        # Now we will raise an exception to end the game
        raise Exception("Game has ended")

def play_game():
    game = MancalaBoard()
    game.display()
    current_player = 1

    try:
        while True:
            if current_player == 1:
                pit = int(input("Player 1's turn, choose pit (0-5): "))
                if 0 <= pit < 6 and game.board[pit] > 0:
                    game.move(pit)
                    game.display()
                    current_player = 2
                else:
                    print("Invalid move, try again.")
            else:
                pit = int(input("Player 2's turn, choose pit (7-12): ")) - 7
                if 0 <= pit < 6 and game.board[7 + pit] > 0:
                    game.move(7 + pit)
                    game.display()
                    current_player = 1
                else:
                    print("Invalid move, try again.")
    except Exception as e:
        print(str(e))

# Run the game
play_game()

```

## SIMULATING THE GAME:

```
Board:  
P2 Store: 0  
P2: 4 4 4 4 4 4  
-----  
P1: 4 4 4 4 4 4  
P1 Store: 0  
  
Player 1's turn, choose pit (0-5): 2  
  
Board:  
P2 Store: 0  
P2: 4 4 4 4 4 4  
-----  
P1: 4 4 0 5 5 5  
P1 Store: 1  
  
Player 2's turn, choose pit (7-12): 8  
  
Board:  
P2 Store: 0  
P2: 5 5 5 5 0 4  
-----  
P1: 4 4 0 5 5 5  
P1 Store: 1  
  
Player 1's turn, choose pit (0-5): 1  
  
Board:  
P2 Store: 0  
P2: 5 5 5 5 0 4  
-----  
P1: 4 0 1 6 6 6  
P1 Store: 1  
  
Player 2's turn, choose pit (7-12): 9  
  
Board:  
P2 Store: 1  
P2: 6 6 6 0 0 4  
-----  
P1: 5 0 1 6 6 6  
P1 Store: 1  
  
Player 1's turn, choose pit (0-5): 0  
  
Board:  
P2 Store: 1  
P2: 6 6 6 0 0 4  
-----  
P1: 0 1 2 7 7 7  
P1 Store: 1  
  
Player 2's turn, choose pit (7-12): 7  
  
Board:  
P2 Store: 1  
P2: 6 7 7 1 1 0  
-----  
P1: 0 1 2 7 7 7  
P1 Store: 1  
  
Player 1's turn, choose pit (0-5): 1  
  
Board:  
P2 Store: 1  
P2: 6 7 7 1 1 0  
-----  
P1: 0 0 3 7 7 7  
P1 Store: 1  
  
Player 2's turn, choose pit (7-12): 8  
  
Board:  
P2 Store: 1  
P2: 6 7 7 2 0 0  
-----  
P1: 0 0 3 7 7 7  
P1 Store: 1  
  
Player 1's turn, choose pit (0-5): 2  
  
Board:  
P2 Store: 1  
P2: 6 7 7 2 0 0  
-----  
P1: 0 0 0 8 8 8  
P1 Store: 1  
  
Player 2's turn, choose pit (7-12): 9  
  
Board:  
P2 Store: 1  
P2: 6 8 8 0 0 0  
-----  
P1: 0 0 0 8 8 8  
P1 Store: 1
```

```
P2: 6 8 8 0 0 0
-----
P1: 0 0 0 8 8 8
P1 Store: 1

Player 1's turn, choose pit (0-5): 3
Board:
P2 Store: 1
P2: 6 9 9 1 1 1
-----
P1: 0 0 0 0 9 9
P1 Store: 2

Player 2's turn, choose pit (7-12): 7
Board:
P2 Store: 1
P2: 6 9 9 1 2 0
-----
P1: 0 0 0 0 9 9
P1 Store: 2

Player 1's turn, choose pit (0-5): 4
Board:
P2 Store: 1
P2: 0 10 10 2 3 1
-----
P1: 0 0 0 0 10
P1 Store: 11

Player 2's turn, choose pit (7-12): 7
Board:
P2 Store: 1
P2: 0 10 10 2 4 0
-----
P1: 0 0 0 0 10
P1 Store: 11

Player 1's turn, choose pit (0-5): 5
Board:
P2 Store: 1
P2: 1 11 0 3 5 1
-----
P1: 1 1 0 0 0 0
P1 Store: 24

Player 2's turn, choose pit (7-12): 12

```

```
P1: 1 1 0 0 0 0
P1 Store: 24

Player 2's turn, choose pit (7-12): 12
Board:
P2 Store: 2
P2: 0 11 0 3 5 1
-----
P1: 1 1 0 0 0 0
P1 Store: 24

Player 1's turn, choose pit (0-5): 0
Board:
P2 Store: 2
P2: 0 11 0 3 5 1
-----
P1: 0 2 0 0 0 0
P1 Store: 24

Player 2's turn, choose pit (7-12): 9
Board:
P2 Store: 2
P2: 1 12 1 0 5 1
-----
P1: 0 2 0 0 0 0
P1 Store: 24

Player 1's turn, choose pit (0-5): 1
Board:
P2 Store: 2
P2: 1 12 1 0 5 1
-----
P1: 0 0 1 1 0 0
P1 Store: 24

Player 2's turn, choose pit (7-12): 11
Board:
P2 Store: 3
P2: 2 0 2 1 6 2
-----
P1: 1 1 2 2 1 1
P1 Store: 24

Player 1's turn, choose pit (0-5): 5
Board:
```

```
Player 2's turn, choose pit (7-12): 11
```

```
Board:  
P2 Store: 3  
P2: 2 0 2 1 6 2  
-----  
P1: 1 1 2 2 1 1  
P1 Store: 24
```

```
Player 1's turn, choose pit (0-5): 5
```

```
Board:  
P2 Store: 3  
P2: 2 0 2 1 6 2  
-----  
P1: 1 1 2 2 1 0  
P1 Store: 25
```

```
Player 2's turn, choose pit (7-12): 12
```

```
Board:  
P2 Store: 4  
P2: 0 0 2 1 6 2  
-----  
P1: 2 1 2 2 1 0  
P1 Store: 25
```

```
Player 1's turn, choose pit (0-5): 0
```

```
Board:  
P2 Store: 4  
P2: 0 0 2 1 6 2  
-----  
P1: 0 2 3 2 1 0  
P1 Store: 25
```

```
Player 2's turn, choose pit (7-12): 8
```

```
Board:  
P2 Store: 5  
P2: 1 1 3 2 0 2  
-----  
P1: 1 2 3 2 1 0  
P1 Store: 25
```

```
Player 1's turn, choose pit (0-5): 2
```

```
Board:  
P2 Store: 5  
P2: 1 1 3 2 0 0  
-----  
P1: 1 2 3 2 0 0
```

```
Player 2's turn, choose pit (7-12): 12
```

```
Board:  
P2 Store: 6  
P2: 0 1 3 2 0 0  
-----  
P1: 1 2 0 3 2 0  
P1 Store: 28
```

```
Player 1's turn, choose pit (0-5): 4
```

```
Board:  
P2 Store: 6  
P2: 0 1 3 2 0 0  
-----  
P1: 1 2 0 3 0 1  
P1 Store: 29
```

```
Player 2's turn, choose pit (7-12): 9
```

```
Board:  
P2 Store: 6  
P2: 0 2 4 0 0 0  
-----  
P1: 1 2 0 3 0 1  
P1 Store: 29
```

```
Player 1's turn, choose pit (0-5): 5
```

```
Board:  
P2 Store: 6  
P2: 0 2 4 0 0 0  
-----  
P1: 1 2 0 3 0 0  
P1 Store: 30
```

```
Player 2's turn, choose pit (7-12): 11
```

```
Board:  
P2 Store: 7  
P2: 1 0 4 0 0 0  
-----  
P1: 1 2 0 3 0 0  
P1 Store: 30
```

```
P2 Store: 7
P2: 1 0 4 0 0 0
-----
P1: 1 2 0 3 0 0
P1 Store: 30

Player 1's turn, choose pit (0-5): 3
Board:
P2 Store: 7
P2: 1 0 4 0 0 0
-----
P1: 1 2 0 0 1 1
P1 Store: 31

Player 2's turn, choose pit (7-12): 12
Board:
P2 Store: 8
P2: 0 0 4 0 0 0
-----
P1: 1 2 0 0 1 1
P1 Store: 31

Player 1's turn, choose pit (0-5): 5
Board:
P2 Store: 8
P2: 0 0 4 0 0 0
-----
P1: 1 2 0 0 1 0
P1 Store: 32

Player 2's turn, choose pit (7-12): 10
Board:
P2 Store: 9
P2: 1 1 0 0 0 0
-----
P1: 2 2 0 0 1 0
P1 Store: 32

Player 1's turn, choose pit (0-5): 0
Board:
P2 Store: 9
P2: 1 1 0 0 0 0
-----
P1: 0 3 1 0 1 0
P1 Store: 32

Player 2's turn, choose pit (7-12): 12
Board:
P1: 0 3 1 0 1 0
P1 Store: 32

Player 2's turn, choose pit (7-12): 12
Board:
P2 Store: 10
P2: 0 1 0 0 0 0
-----
P1: 0 3 1 0 1 0
P1 Store: 32

Player 1's turn, choose pit (0-5): 1
Board:
P2 Store: 10
P2: 0 1 0 0 0 0
-----
P1: 0 0 2 1 2 0
P1 Store: 32

Player 2's turn, choose pit (7-12): 11
Board:
P2 Store: 10
P2: 1 0 0 0 0 0
-----
P1: 0 0 2 1 2 0
P1 Store: 32

Player 1's turn, choose pit (0-5): 2
Board:
P2 Store: 10
P2: 1 0 0 0 0 0
-----
P1: 0 0 0 2 3 0
P1 Store: 32

Player 2's turn, choose pit (7-12): 12
Game Over
Board:
P2 Store: 11
P2: 0 0 0 0 0 0
-----
P1: 0 0 0 0 0 0
P1 Store: 37

Player 1 wins!
Game has ended
```