

POAlep10.py - C:/Users/welcome/AppData/Local/Programs/Python/Python311/POAlep10.py (3.11.5)

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```
class BlocksWorld:
    def __init__(self):
        self.state = {
            "A": "B",      # A is on B
            "B": "table",  # B is on the table
            "C": "table"   # C is on the table
        }
        self.goal = {
            "A": "B",
            "B": "C",
            "C": "table"
        }

    def is_goal_state(self):
        return self.state == self.goal

    def move(self, block, destination):
        if block in self.state and self.state[block] != destination:
            print(f"Moving {block} from {self.state[block]} to {destination}")
            self.state[block] = destination

    def plan_moves(self):
        print("\nInitial State:", self.state)
        while not self.is_goal_state():
            for block, target in self.goal.items():
                if self.state[block] != target:
                    self.move(block, target)
            print("\nFinal Goal State Reached:", self.state)

# Run the Blocks World Solver
bw = BlocksWorld()
bw.plan_moves()
```

```
Python 3.11.5 (tags/v3.11.5:cce6ba9, Aug 24 2023, 14:38:34) [MSC v.1936 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/welcome/AppData/Local/Programs/Python/Python311/POAIexpl0.py

Initial State: {'A': 'B', 'B': 'table', 'C': 'table'}
Moving B from table to C

Final Goal State Reached: {'A': 'B', 'B': 'C', 'C': 'table'}
>>>
```