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CLASS & SEC : AI&DS – ‘FD’

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EX NO: 9

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EXP NAME : IMPLEMENTATION OF BLOCKS WORLD PROGRAM

PROGRAM :

```
class BlocksWorld:
```

```
    def __init__(self):
```

```
        self.state = {
```

```
            "A": "B",
```

```
            "B": "table",
```

```
            "C": "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():
```

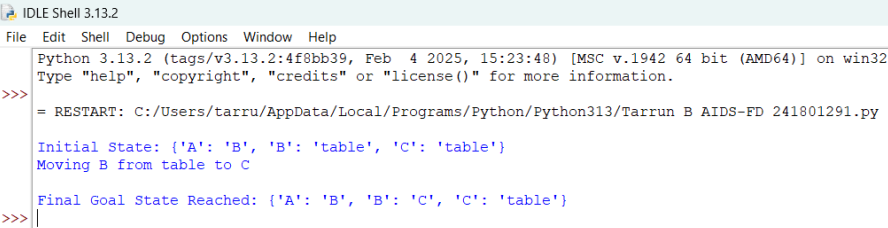
```
        for block, target in self.goal.items():
            if self.state[block] != target:
                self.move(block, target)

        print("\nFinal Goal State Reached:", self.state)

bw = BlocksWorld()

bw.plan_moves()
```

OUTPUT:



The screenshot shows the IDLE Shell 3.13.2 interface. The menu bar includes File, Edit, Shell, Debug, Options, Window, and Help. The shell window displays the following output:

```
Python 3.13.2 (tags/v3.13.2:4f8bb39, Feb  4 2025, 15:23:48) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: C:/Users/tarru/AppData/Local/Programs/Python/Python313/Tarrun B AIDS-FD 241801291.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'}
>>>
```