Monkey Banana Problem

Program:

# Operators

def move(subject, x1, x2):

return f"Move {subject} from {x1} to {x2}"

def push\_box(x1, x2):

return f"Push box from {x1} to {x2}"

def climb\_box(x, direction):

return f"Climb box at {x} {direction}"

def have\_banana(x):

return f"Have banana at {x}"

# Initial State

initial\_state = {

'monkeyAt0': True,

'monkeyLevel': 'Down',

'bananaAt1': True,

'boxAt2': True

}

# Goal State

goal\_state = {

'GetBanana': True,

'at': 1

}

# Planning Algorithm

def plan\_actions(initial\_state, goal\_state):

actions = []

# Example planning algorithm to achieve the goal state

if initial\_state['monkeyAt0'] and initial\_state['bananaAt1']:

actions.append(move('Monkey', 0, 1))

actions.append(climb\_box(1, 'Up'))

actions.append(have\_banana(1))

return actions

# Execute the planning algorithm

actions = plan\_actions(initial\_state, goal\_state)

# Print the actions in the plan

print("Plan:")

for action in actions:

print(action)

Output:

Plan:

Move Monkey from 0 to 1

Climb box at 1 Up

Have banana at 1