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class MonkeyBananaProblem:
  def init (self):
    self.state = {
       "monkey position": "floor",
       "box position": "corner",
       "banana position": "ceiling",
       "monkey on box": False,
       "monkey has banana": False
     }
  def move box(self):
    if self.state["monkey position"] == "floor" and
self.state["box position"] == "corner":
       self.state["box position"] = "under banana"
       self.state["monkey position"] = "under banana"
       print("Monkey moves box under banana.")
  def climb box(self):
    if self.state["monkey position"] == "under banana" and
self.state["box position"] == "under banana":
       self.state["monkey on box"] = True
       print("Monkey climbs onto the box.")
  def grab banana(self):
```

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if self.state["monkey on box"] and
self.state["banana position"] == "ceiling":
       self.state["monkey has banana"] = True
       print("Monkey grabs the banana!")
  def solve(self):
    self.move box()
    self.climb box()
    self.grab banana()
    if self.state["monkey has banana"]:
       print("Goal Achieved: Monkey has the banana.")
    else:
       print("Goal not achieved.")
problem = MonkeyBananaProblem()
problem.solve()
```