Exercise Set 2

PDDL

- Create a PDDL problem where:
  1. There is *at least* 6 atomic fluents, 4 actions, and 2 paths to a goal state.
  2. All paths to the goal correspond to actions that can be relaxed to a *partial order*.

Planning Graphs

- Create the layers S_0 to S_3 (and therefore including S_0-A_2) of the planning graph for your problem, where S_0 is your specified initial state.

Resource Free Scheduling

- Add duration specifications to your actions.
- Take a partial order plan for your problem and use the Dynamic Programming Algorithm for Resource-Free Scheduling to calculate a schedule: Earliest start times, latest start times, and slack times for each required action.

Resource Constrained Scheduling

- Add consumable and durable resource specifications to your actions.
- Use the minimum slack algorithm to calculate a resource constrained schedule: Earliest start times, latest start times, and slack times for each required action, and resource allocations.