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COMP 521

Planner was implemented with states being number of spices in inventory and caravan. States 0-6 = caravan, states 7-13 = inventory. Spices were arranged in Tu, Sa, Ca, Ci, Cl, Pe, and Su. Actions to connect states were the trader actions and take/get 1-4 spice from the caravan. Actions are done conditionally, so the player can perform an action if the player state is higher than the post condition. Perconditions are added to current state to find the new state after the action. A* is done with the heuristic 20*((amount of each spice)-2)^2. The goal is just to get at least 2 spices in each spice spot in the caravan, with no restrictions on the inventory size. Thief steals a random item from player or caravan and new plan is computed from there. I used NuGet asset from the asset store to help use BlueRaja's High-Speed-Priority-Queue-for-C-Sharp (https://github.com/BlueRaja/High-Speed-Priority-Queue-for-C-Sharp). I also used a vsCode asset to help setup vscode for unity.