

Centralized Assignment

Programming

- Derive from CentralAssignment Interface
- Instances for current task are already in your group directory
- Input: Utility Matrix $U = \text{Agents} \times \text{Targets}$
- Output: Assignment Matrix $A = \text{Agents} \times \text{Targets}$
 - Assign 1 if agent is assigned to target, 0 otherwise

Blackboard

- 1 agent per target
- First agent chooses best (highest utility) target and writes to board
- Second chooses best from those not on the board
- ...
- Until all agents have a target

Contract Net

- 1 agent per target
- Targets are **virtually** auctioned off
- Agents bid their utility for the target, if it is higher than the utility of the current assignment
- Highest bidder gets contract
- If this one already has a contract, it will decline it, that target then needs to be reauctioned

Running the code

- Two start scripts in boot/
 - run_blackboard.sh
 - run_contract_net.sh
- Set your team name (e.g. grp4) in
 - boot/config/team.cfg
 - team_name: grp4