BaseAgent

agent_name : str
agent_type : str
key : bool
location : Tuple

Altruistic agent

action_space alpha: float epsilon: float epsilon_decay: float

gamma: float key: bool min_ensilon: fl

min_epsilon : float q table : dict

decay_epsilon()
get_q(state, action)
select_action(state)

update(state, action, reward, next_state)
update q(state, action, reward, next_state)

QLearningAgent

action_space
alpha: float
epsilon: float
epsilon_decay: float
gamma: float
min_epsilon: float
q table: dict

decay_epsilon()
get_q(state, action)
select_action(state)
update_q(state, action, reward, next_state)

Main Frame

env

add_agents(patron_num, altruist_num)

build_plot(rewards: List)

cache tables(cache dir: str, try dir base: str)

checking_learning(patron_num: int, altruist_num: int, render_mode: str, num_episodes: int)

learning(patron_num: int, altruist_num: int, render_mode: str, num_episodes: int)

load_tables(progon_number: int, cache_dir: str, try_dir_base: str)

main_frame(progon_number: Optional[int], learning_needed: bool, testing_needed: bool)

progon(learning_flag: bool, steps: int, total_reward: int, action: dict, possible_actions: int, done) serialize keys(table)

venv init(patron num, altruist num, render mode)

WorldEnv

agents : dict clock : NoneType key_position : ndarray

metadata : dict

render_mode : NoneType

size_x : int size_y : int

window : NoneType window_size_x : int window_size_y : int

action_space()

close()

create_obstacles()

decision_doors(agent_instance, new_position)

decision_grid_edges(agent_instance, direction)

decision immutable blocks(new position)

decision_key(agent_instance, new_position)

decision other agents(new position, new positions)

decision_process(agent_instance, direction, new_positions)

observation_space()

render()

reset(seed, options)

step(action)