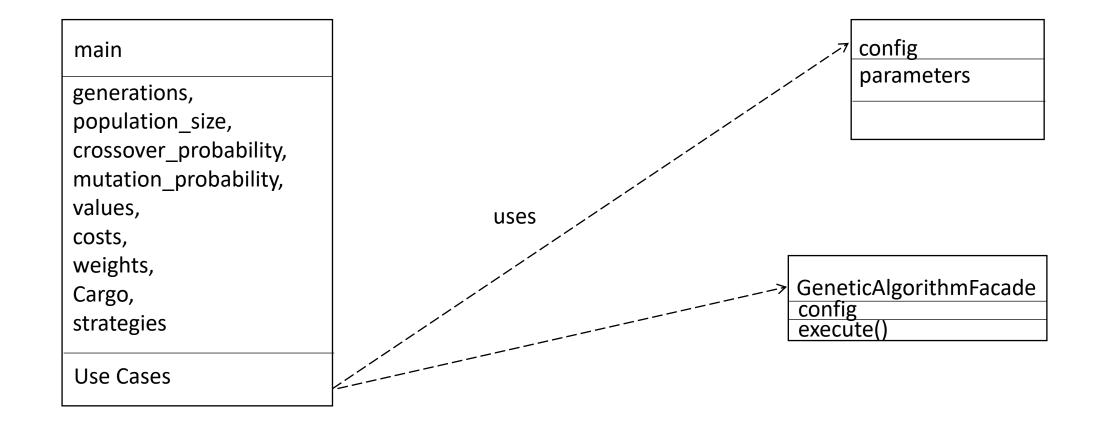
project2.ipynb



Genetic_algorithm.py

GeneticAlgorithmFacade

config

execute()

problem.py

Problem

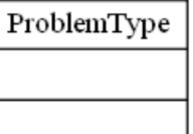
maxFitness : NoneType population_length type values

getFitness(population)

KnapsackProblem

cargo costs weights

apply_costs(individual)
apply_weights(individual)
getFitness(individual)
meanFitness(population)
validate()
validateIndividual(individual)



reproduction.py

rate strategy crossover_double_points(individual_a, individual_b) crossover_single_point(individual_a, individual_b) duplication(individual) execute(individual_a, individual_b) invalid()

ReproductionStrategy

selection.py

Selection problem strategy battle_royale_tournament(population) execute(population, population size, single) invalid() playoff_tournament(population) roulette(population) roulette pick(population) tournament pick(population, tournament)

SelectionStrategy

reproduction.py

rate strategy crossover_double_points(individual_a, individual_b) crossover_single_point(individual_a, individual_b) duplication(individual) execute(individual_a, individual_b) invalid()

ReproductionStrategy

mutation.py

Mutation

rate strategy

execute(individual)
flip(individual)
invalid()
sequence_swap(individual)
swap(individual)

MutationStrategy

stop_criteria.py

StopCriteriaType

type,
num_generations
Fitness
quorum
__init__(type,
num_generation, fitness,
quorum)