

class Genome

Representation

- genome itself - BitArray of fixed size
- bad genes number threshold (global)
- mutation rate M (global)

Operations

- mutate
- set mutation rate (global)
- set bad genes threshold

Properties

- get genome size
- get_num_bad_genes up to n
- **get bad genes number threshold**

Creating

- default - all good (0)
- copy constructor **(+optional-mutation)**

class Fish

Representation

- age
- genome
- reproduction age (global)

Operations

- give birth
- ageing
- set reproduction age

Property

- is dead?
- is pregnant?

Creating

- default - age 0
- creation by copy
- **creation by genome - age 0**

class Population

Representation

- a collection of fish
- max population size

Operations

- remove a fish
- insert new fish
- sweep through the collection

Properties

- current num of fishes

Creating

- create a population with given num of fishes