

Norwegian University
of Life Sciences

Modelling the Ecosystem of Rossumøya

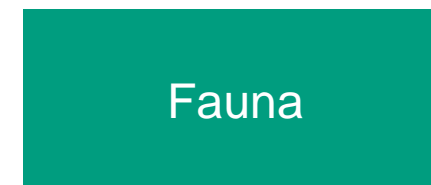
INF200 January Exam Group 19

Hemanth Babu Sana, Mithunan Sivagnanam

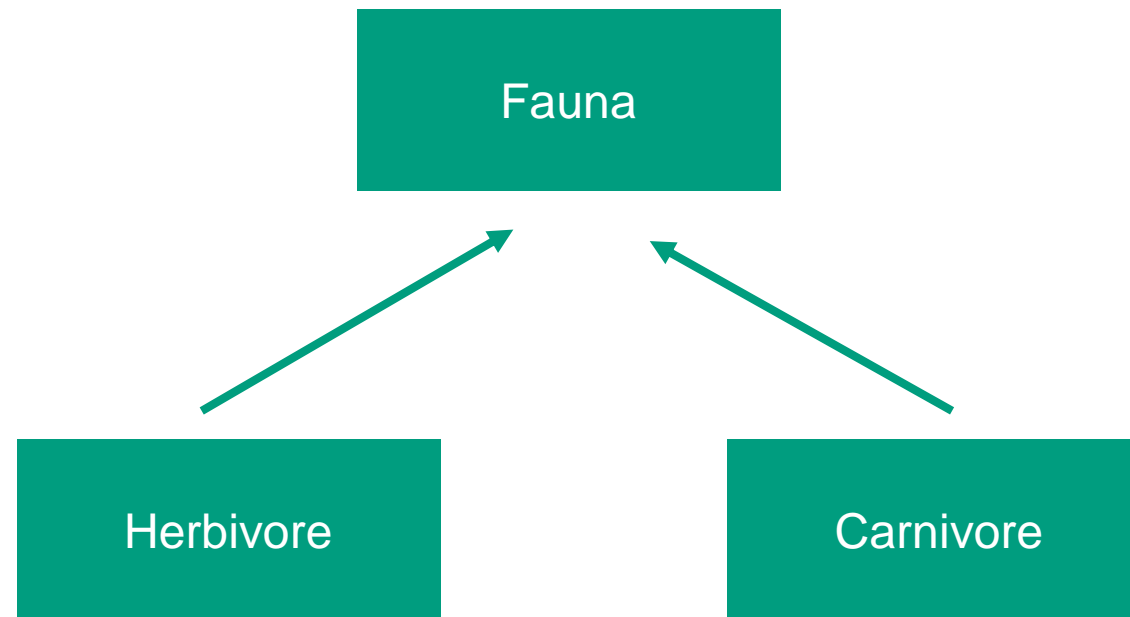
Contents:

- Class Diagram of the Model
- Functionalities of each class
- What went good
- What didn't go well
- Extra Features
- Code Trustworthy
- Live Debug

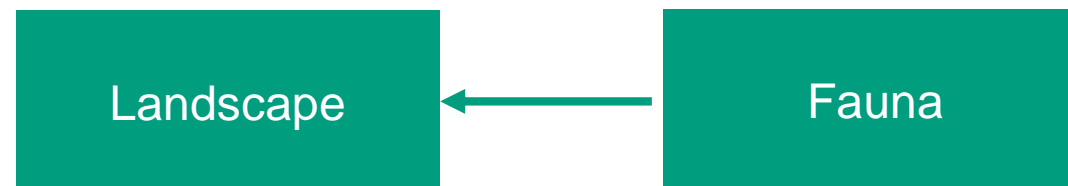
Class Diagram:



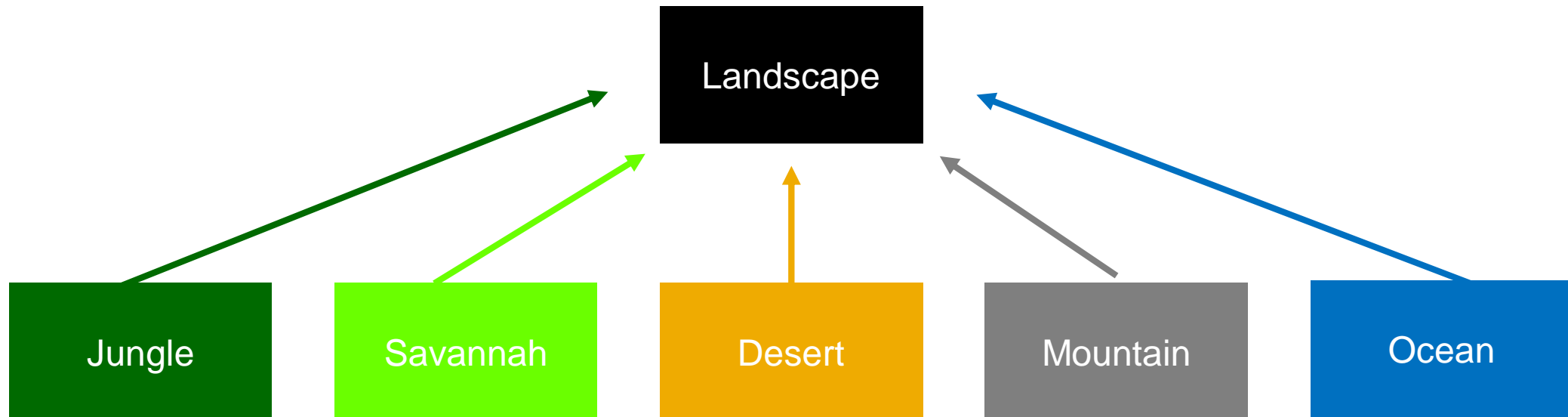
Fauna Class Diagram:



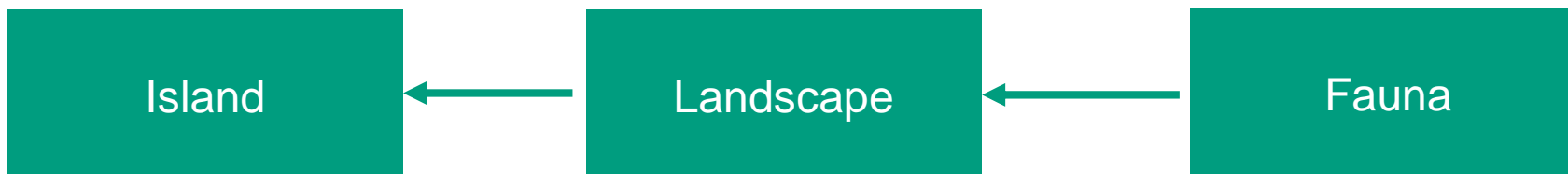
Class Diagram:



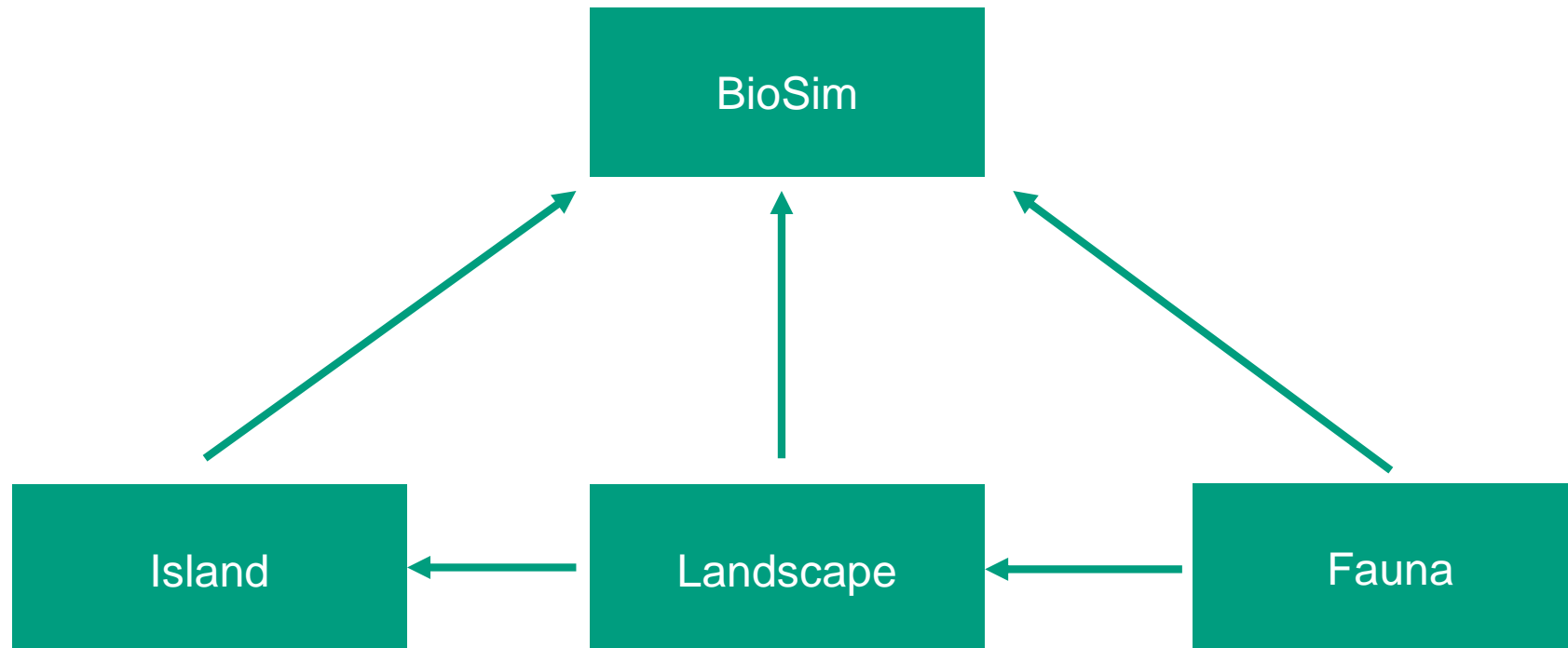
Landscape Class Diagram:



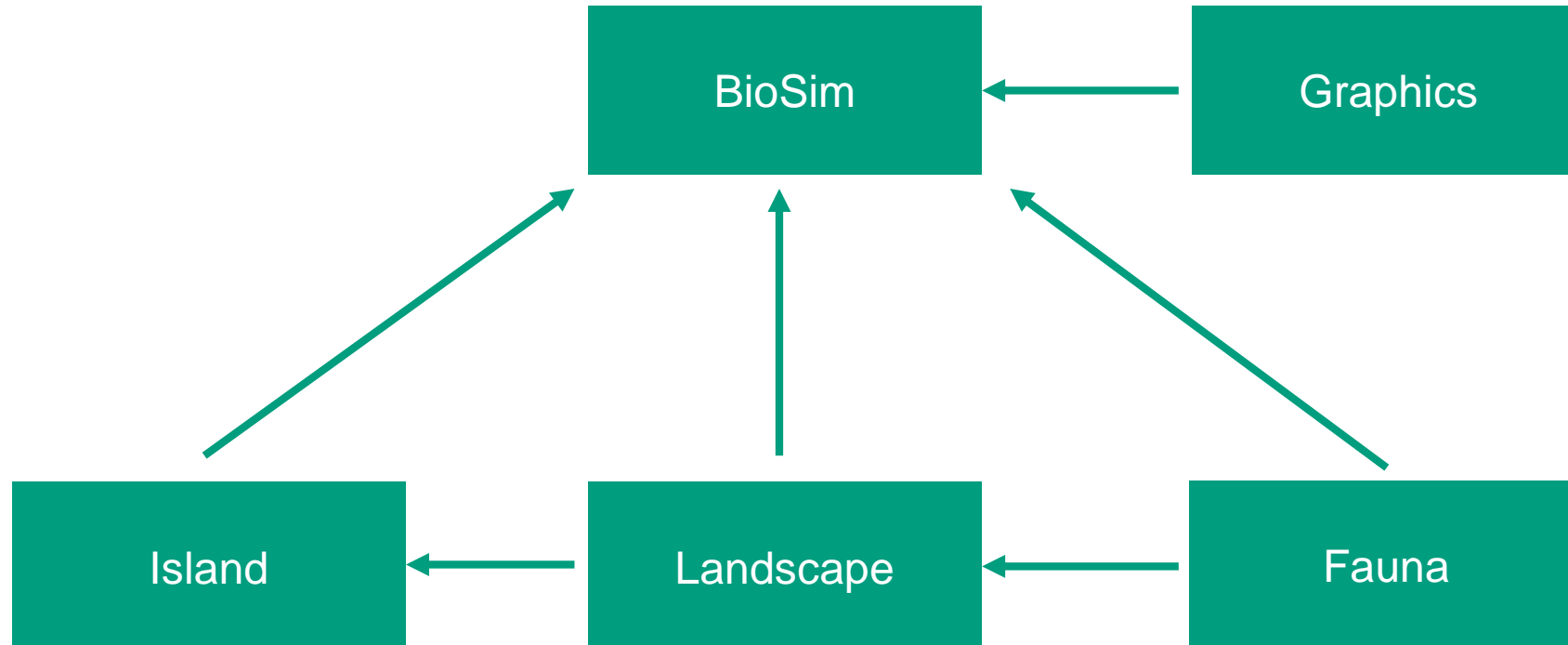
Class Diagram:



Class Diagram:



Class Diagram:



What went good?

- Getting complete picture of the project by on-the-desk simulation
- Making the class diagrams beforehand.
- Evaluating multiple ways to optimize the code.

Extra Work:

- Made code maintainable for further use.
- Using variable names to get its obvious purpose.
- Doc Strings for each method to explain its use.
- Test driven development to find out early bugs.

Challenges:







- Herbivores increase in number drastically
- Lazy Initialization
- Animals migrate multiple times a year

Trustworthy?

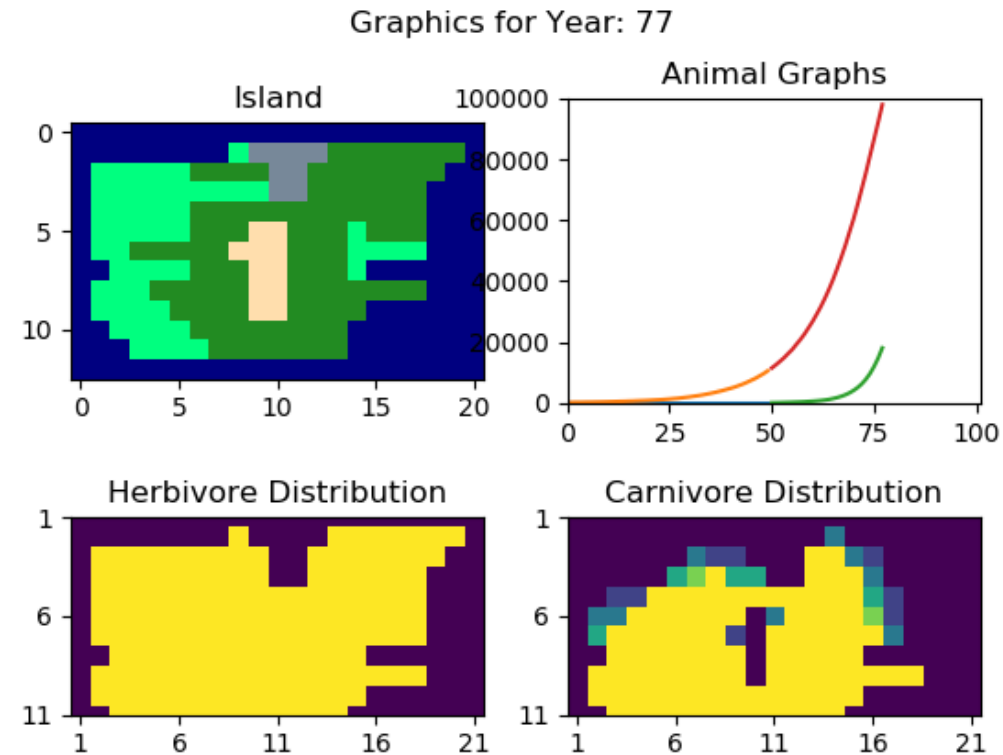
- Unit tests for most of the functionalities.

Coverage: pytest in tests ×

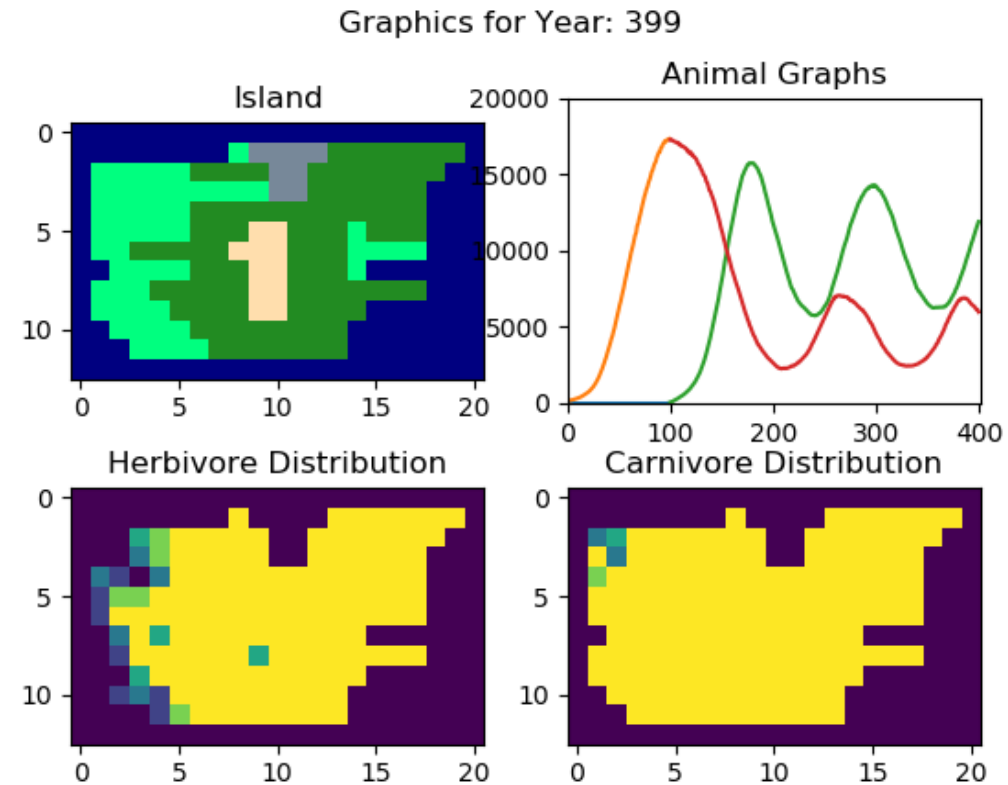
100% files, 84% lines covered in 'biosim'

Element	Statistics, %
 <code>__init__.py</code>	100% lines covered
 <code>fauna.py</code>	87% lines covered
 <code>graphics.py</code>	85% lines covered
 <code>island.py</code>	100% lines covered
 <code>landscape.py</code>	74% lines covered
 <code>simulation.py</code>	86% lines covered

Bug:



After Fixing:



Any Questions from Environmental Protection Agency Of Pylandia?

