


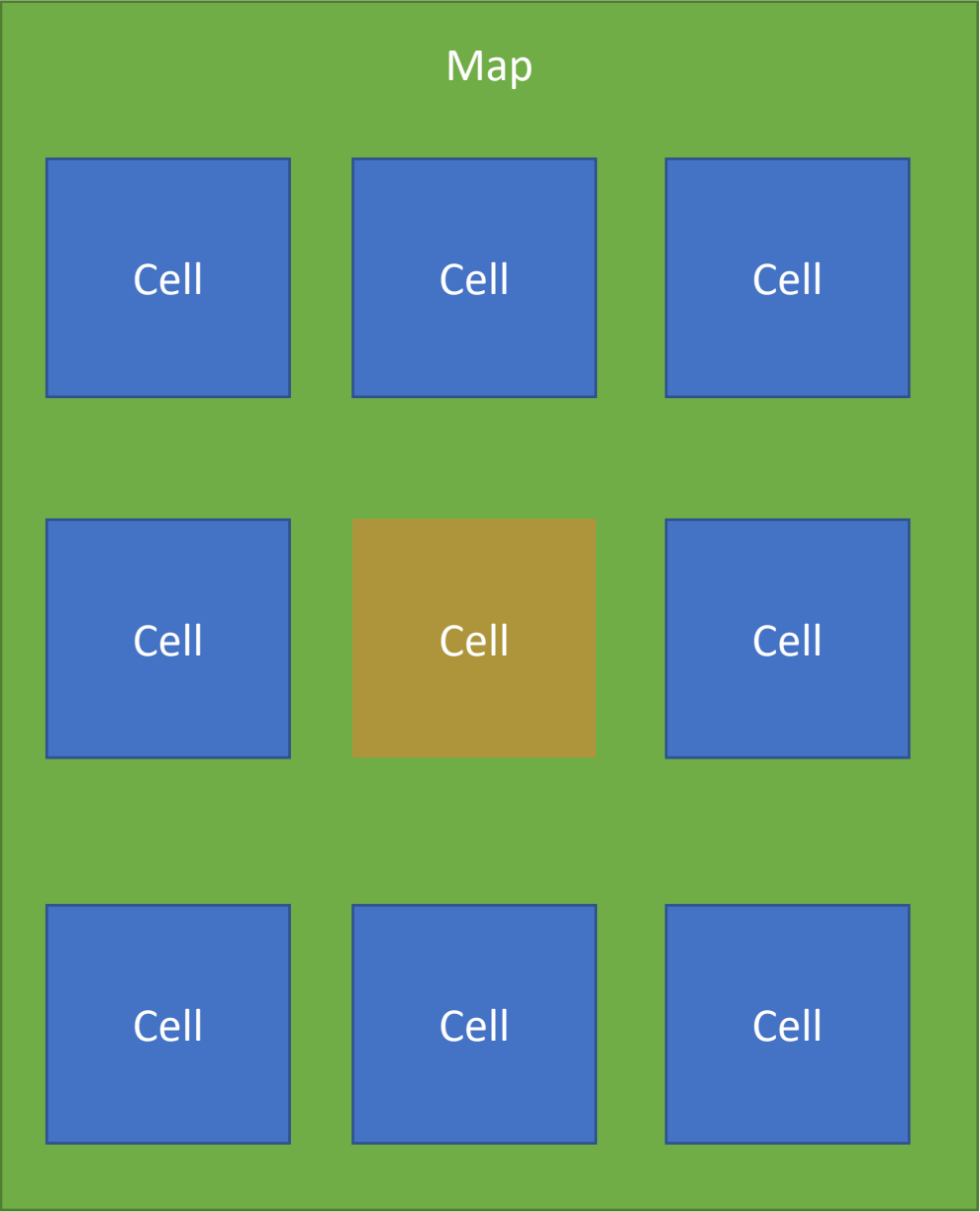
Gruppe 17

INF200







Planlegging og struktur

- Planlegging
 - Design av tester
 - Testbasert programmering
 - Utforsking av egne ideer
 - Implementere flere tester
 - Utarbeide dokumentasjon
- 



Troverdighet

- Enhetstester
 - Forskjellige lister
 - Parameterisering
 - Implementering
 - If/else

 test_biosim_interface....	97% lines covered
 test_cell.py	100% lines covered
 test_fauna.py	82% lines covered
 test_map.py	88% lines covered

Noen kodesnutter som vi ønsker å vise frem:

- Lagre til csv hvert år:

```
def save_mid_simulation_result(self, herbivores, carnivores, total):  
    """ Saves the mid simulation results to a CSV-file each year. """  
    with open('save mid simulation result', 'a', newline='') as file:  
        writer = csv.writer(file)  
        writer.writerow([self._year, herbivores, carnivores, total])
```

```
116  
117     #mock.patch("biosim.map.choice", return_value=1, autospec=True)  
118     @mock.patch("biosim.map.choice", return_value=1, autospec=True)  
119     def test_select_index_to_move(self, mock_choice, map=map):  
120         probabilities_index_test = [0, 0.25, 0.75, 0.25]  
121         index = map.select_index_to_move(probabilities_index_test)  
122         assert index == 1  
123         mock_choice.assert_called_once_with(1)
```

Problem med å visualisere med andre frekvenser enn en, her var en liten hotfix.

```
# Converts nan values
added_herbivores = 0
added_carnivores = 0
for i in range(current_year):
    if math.isnan(herbivore_data[i]):
        # if herbivore_data[i] is NaN:
        if added_herbivores == 0:
            herbivore_step = added_herbivores / self.frequency
            carnivore_step = added_carnivores / self.frequency
        if i != 0:
            herbivore_data[i] = herbivore_data[i-1] + herbivore_step
            carnivore_data[i] = carnivore_data[i - 1] + carnivore_step
            total_data[i] = herbivore_data[i] + carnivore_data[i]
```

Kunne ha forenklet med comprehensions.

```
221
222 def add_age(self):
223     """
224     Increases the age for all the creatures in the population list.
225     :return:
226     """
227     for creature in self.population_herbivores:
228         creature.age += 1
229     for creature in self.population_carnivores:
230         creature.age += 1
```

```
221
222 def add_age(self):
223     """
224     Increases the age for all the creatures in the population list.
225     :return:
226     """
227     [herbivore.age+1 for herbivore in self.population_herbivores]
228     [carnivore.age + 1 for carnivore in self.population_carnivores]
229
```


Simulering

