Object-oriented programming — Object-oriented programming

- All data entities in Python are *objects*. Compound objects consist of multiple pieces of data.
- New types of compound objects can be defined using the keyword `class`.
- The data for objects in the class are contained in user-defined *fields*.
- Functions that manipulate the data in these fields are *methods*.
- Lecture examples - Character, Ball
- More examples - Class Structure, Class Errors

Class fields and methods — Object-oriented programming

- The class initializer `__init__` generates instances of class objects.
- The first parameter to class methods is, by convention, always named `self`.
- Class fields for an object are defined/modified via `self.class_field = ...`
- Objects created via `__init__` for user-defined class are mutable. Subsequent modification of a class fields mutates the object.
- Lecture examples - Character, Blackjack Template
- More examples - Class Structure, Class Errors, Bubbles, Flowers

Tiled images — Tiled images

- A tiled image is a single image that consists of a set of smaller images laid out in a regular grid.
- Tield images are useful since loading a single large image is faster than loading many small images.
- Small images in the tiled image can be drawn by specifying the appropriate source rectangle for draw_image using the size of the small image and its position in the grid.
- Lecture examples - Tiled Images
- More examples - Bunny Emotions

Programming Tips — Week 6, Prime Numbers (while loops)