Working with Classes

Marc Gilbert
FRIVOLOUSTWIST, LLC

@frivoloustwist www.frivoloustwist.com

Module Overview

Object Oriented Programming

The anatomy of a class

Statics and constants

Interface programming

What is Object Oriented Programming?

Object Oriented Programming

Object Oriented Programming is a programming methodology in which objects are the foundational organizing concept.

A World of Objects

Properties

Methods

Relationships

Interactions

The Four Pillars of OOP

Encapsulation

The grouping of data and methods into a cohesive object

Abstraction

The process of exposing only those features of an object necessary for interactions

Inheritance

The process of creating a new class based on and extending another

Polymorphism

The ability of an object or function to take on a different form

Coming Up

The Anatomy of a Class

A class is like a blueprint for an object.

Using Classes in Unity

Coming Up

Instantiating Game Objects

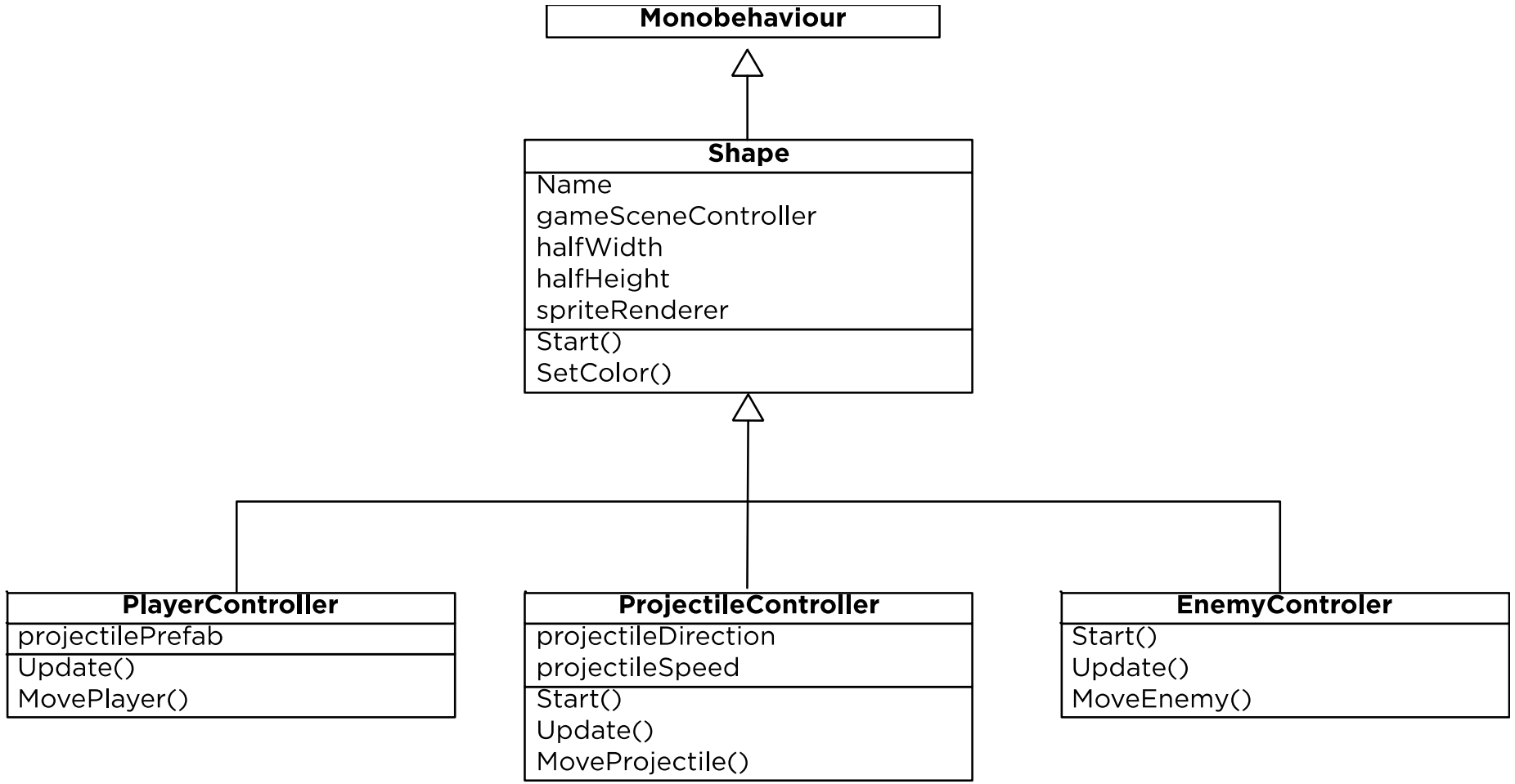
Coming Up

A Closer Look at Inheritance

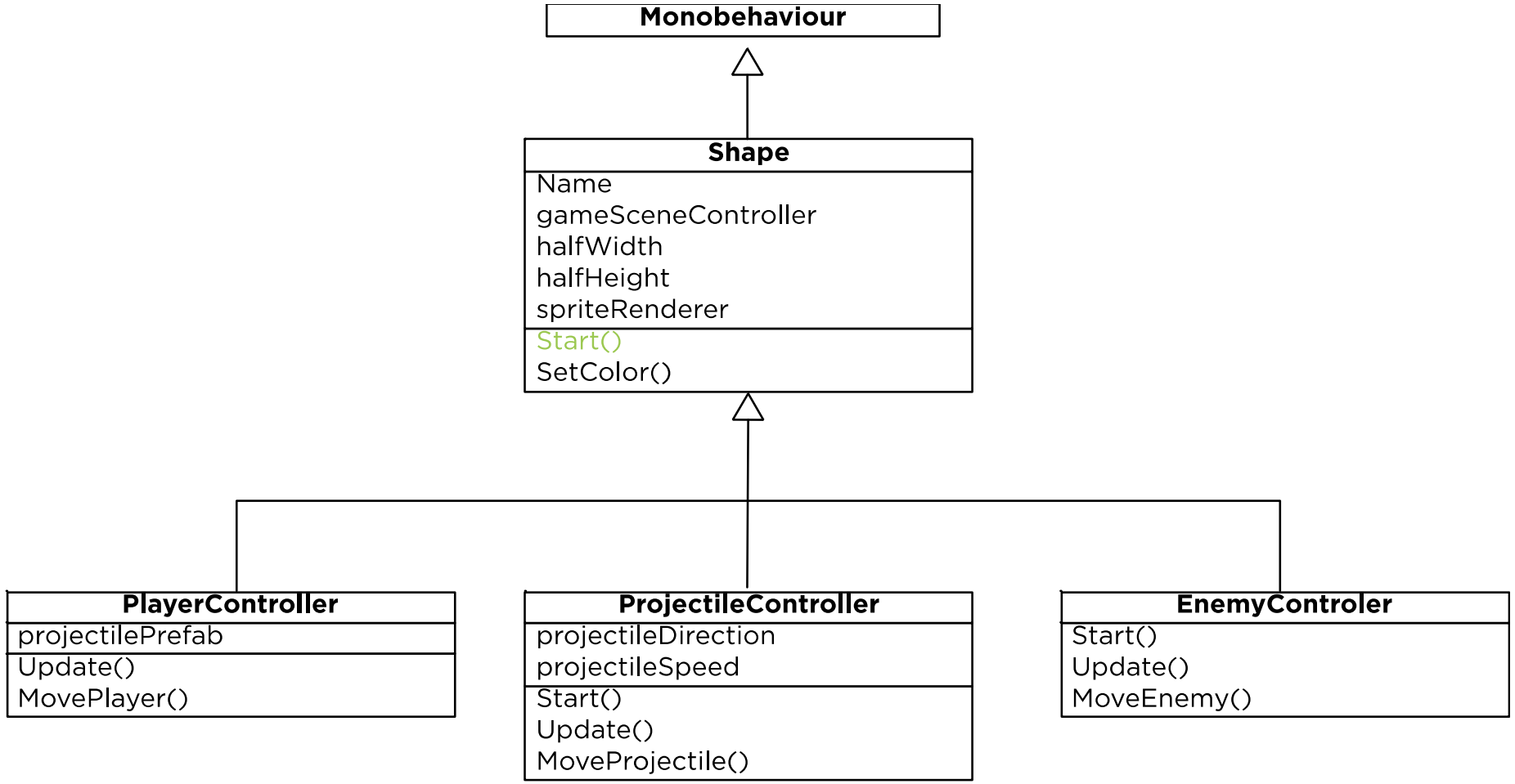
Coming Up

Polymorphism

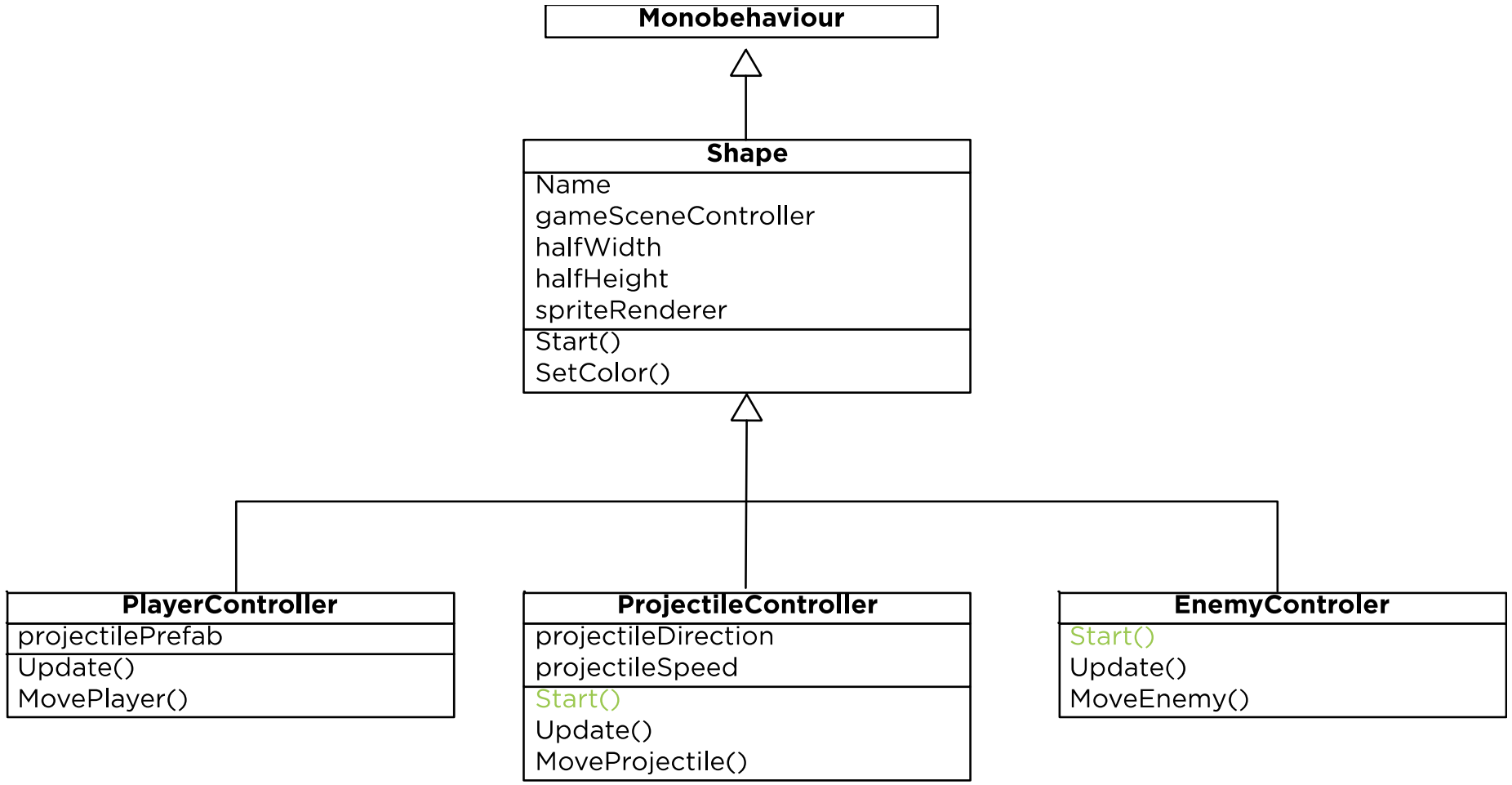
Inheritance Chain



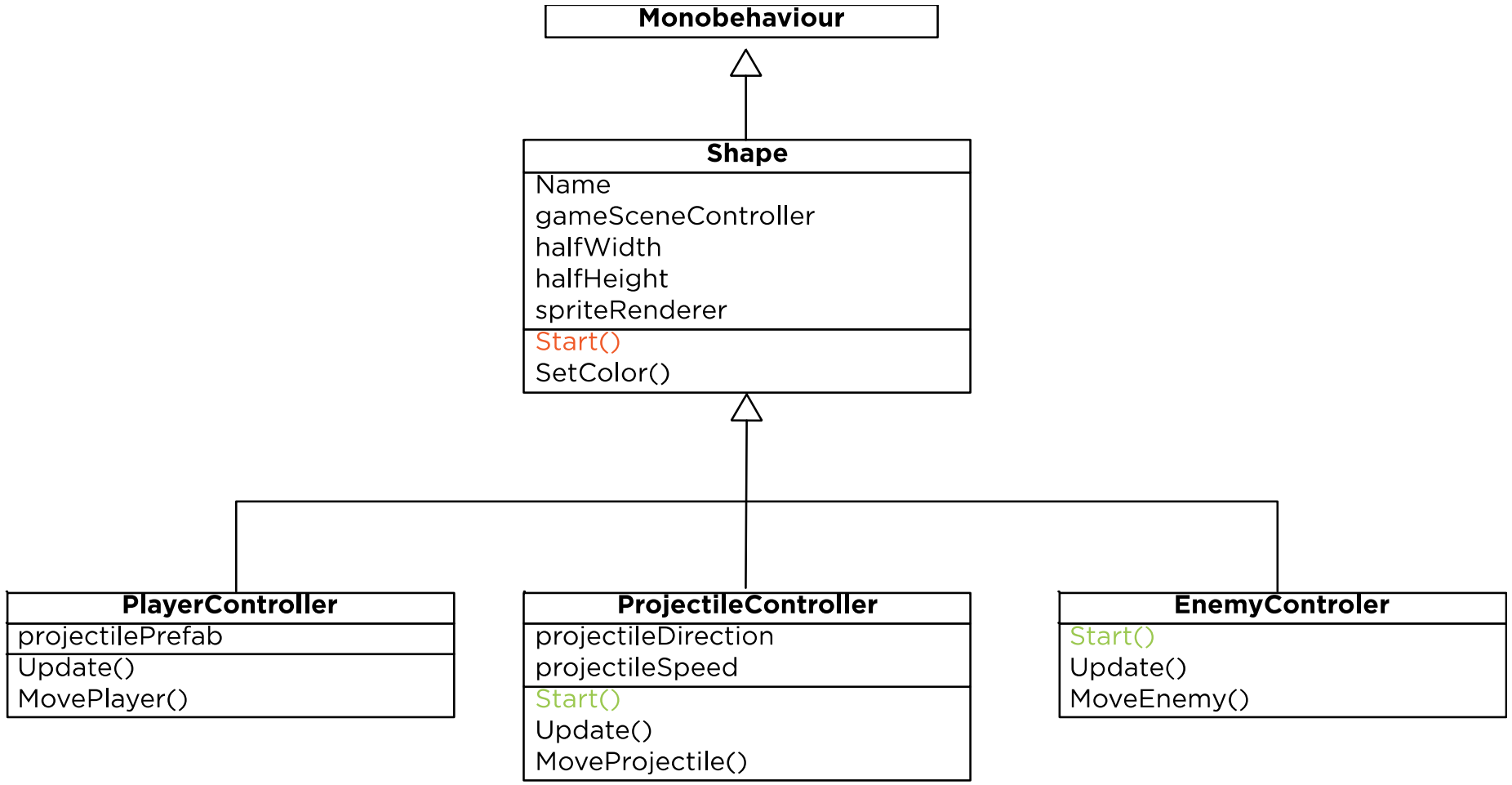
Inheritance Chain



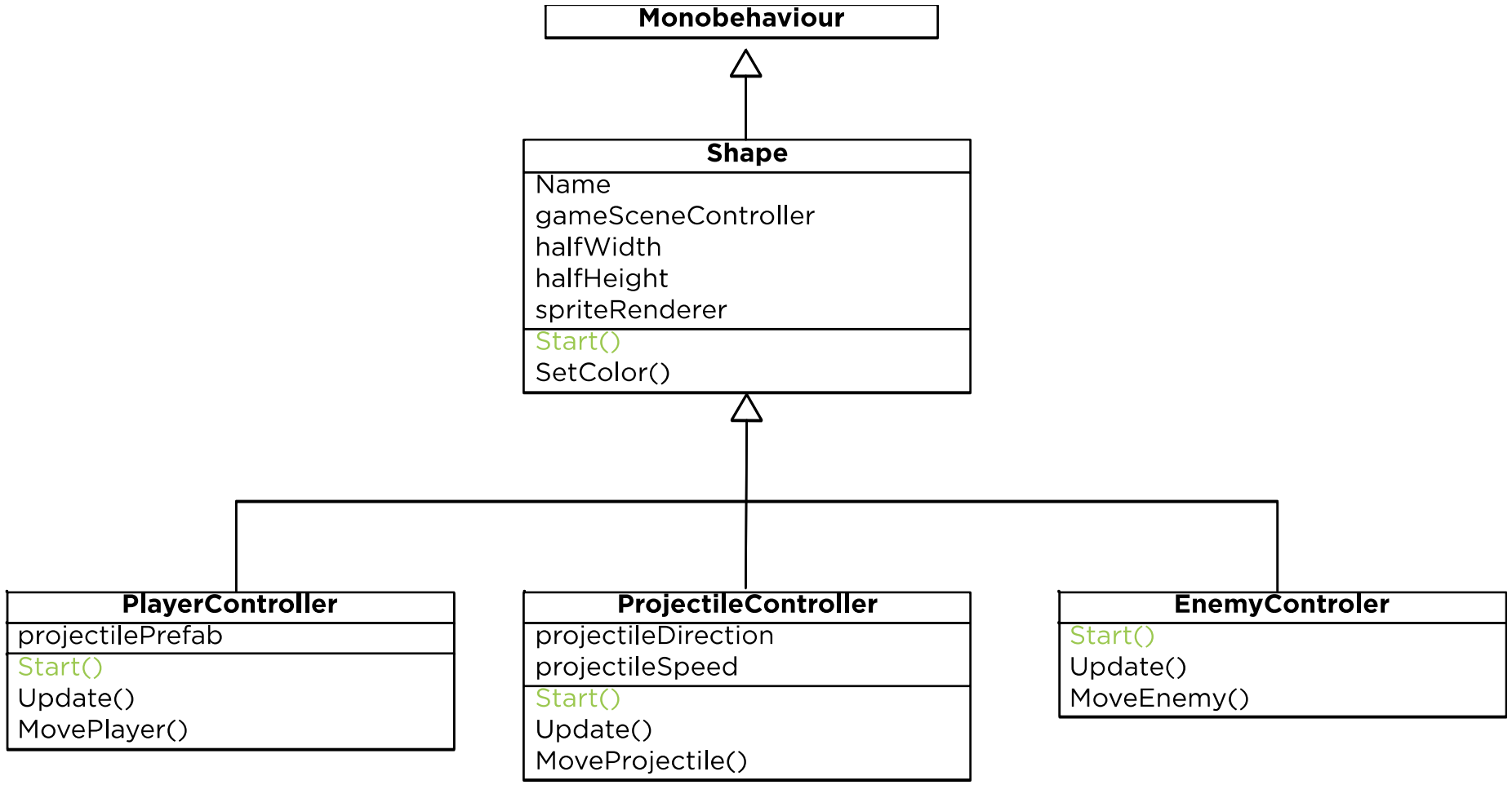
Inheritance Chain



Inheritance Chain



Inheritance Chain



The Four Pillars of OOP

Encapsulation

The grouping of data and methods into a cohesive object

Abstraction

The process of exposing only those features of an object necessary for interactions

Inheritance

The process of creating a new class based on and extending another

Polymorphism

The ability of an object or function to take on a different form

Coming Up

Module Conclusion

Interface

An interface contains definitions for related functionality in the form of methods, properties, events, and indexers that can be implemented by classes and structs.

An interface defines a contract.

Module Summary

- Object Oriented Programming in C#
- Using classes in Unity
- Instantiated game objects
- Inheritance and Polymorphism
- Interface programing

Coming Up