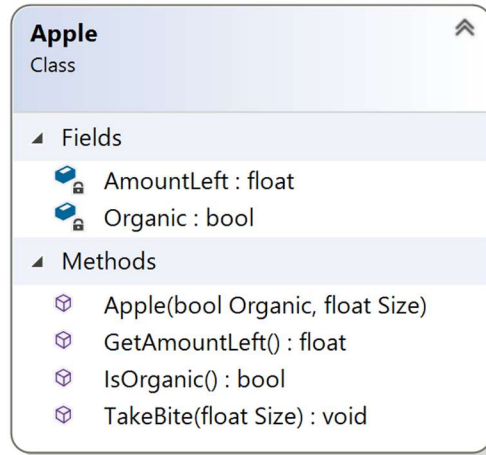# 1 3 Exercise 3 Solution

There are various designs that are reasonable for the given problem. Here's my Apple class diagram:

Fields

I included the `Organic` field because the `main` function will only eat apples that haven't had pesticides applied to them. We need to know how much of the apple if left so we can tell when there's no more apple to eat; that's what the `AmountLeft` field is for.

Getters

The `IsOrganic` getter lets the `main` function find out whether the apple is organic or not.

The `GetAmountLeft` getter returns how much of the apple is left to eat. I thought about exposing an `IsSomeLeft` getter that returns a bool instead, but when the `main` function takes a bite (coming soon!) it tells how big a bite it wants to take. If it doesn't know how much of the apple is left, it might try to bite more apple than there is left to eat.

Function

The `TakeBite` function takes a bite of the given size out of the apple.

Constructor

My constructor parameters are whether or not the apple is organic and how large the apple is (which will be my initial value for how much is left to eat).