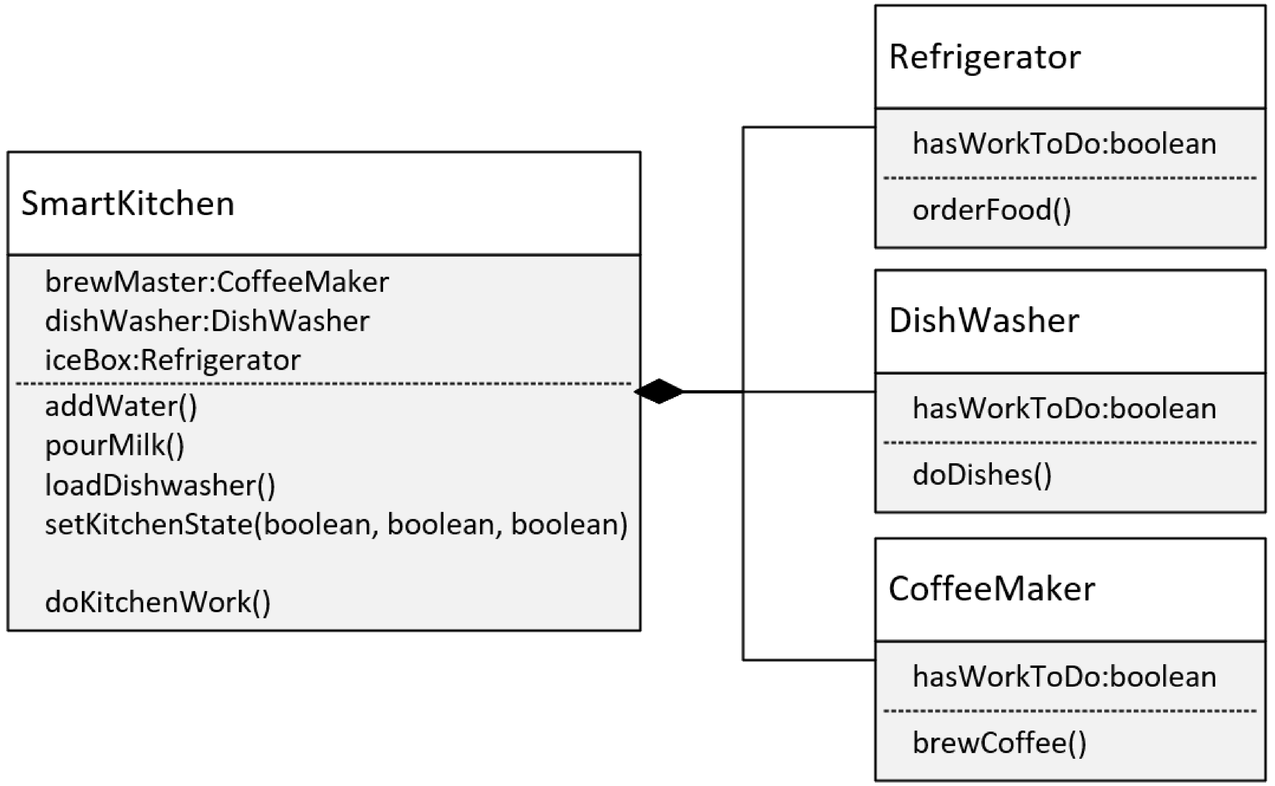
The Composition Challenge

In this challenge, you need to create an application for controlling a smart kitchen.

Your smart kitchen will have several appliances.

Your appliances will be Internet Of Things (IoT) devices, which can be programmed.



The Composition Challenge

It's your job to write the code, to enable your Smart Kitchen application, to execute certain jobs.

Methods on your SmartKitchen class, will determine what work needs to be done:

- `addWater()` will set the Coffee Maker's `hasWorkToDo` field to true.
- `pourMilk()` will set Refrigerator's `hasWorkToDo` to true.
- `loadDishwasher()` will set the `hasWorkToDo` flag to true, on that appliance.

Alternately, you could have a single method, called setKitchenState, that takes three boolean values, which could combine the three methods above.

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To execute the work needed to be done by the appliances, you'll implement this in two ways:

First, your application will access each appliance (by using a getter), and execute a method.

- The appliance methods are `orderFood()` on Refrigerator, `doDishes()` on DishWasher, and `brewCoffee()` on CoffeeMaker.
- These methods should check the `hasWorkToDo` flag, and if true, print a message out, about what work is being done.

Second, your application won't access the appliances directly.

- It should call `doKitchenWork()`, which delegates the work, to any of its appliances.