

HW6 - Reflection

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Main Differences between PreDesignUML and FinalUML:

1. The **Potion** classes are managed through **CraftingAlgorithm** interface instead of directly called by the **AlchemyFactory** class.
2. A factory class **AlgorithmFactory** is introduced to reduce the coherence between the **AlchemyFacatory** class and the **CraftingAlgorithm** subclasses. It generate crafting algorithms through the defined Enums called **CraftingAlgorithmNames**.
3. Each **Potion** child class should define their own **static list of ingredients** for crafting algorithm to access the recipe through static function call **getIngredients(name)**.
4. The **Potion** class provide static function call for crafting algorithm to retrieve recipe and create concrete instances of potions. In this way, we reduce the coherence between **Potion** class and **CraftingAlgorithms** implementations. They communicate through Enum **PotionNames**.
5. The **AlchemyFactory** class should initialized given the crafting algorithm name.