*COS214 Practical Project*  
As you all know, the scenario that we have been given is to either:  
**A.** Simulate the running of a restaurant, or  
**B.** Gamify the restaurant and create a restaurant tycoon  
  
(As a side note, *a tycoon (or magnate) is a wealthy, powerful person in business or industry*. Typically, a tycoon would own an entire company that consists of franchises, however, for the sake of this project, we should keep it simple and focus on the management of a single restaurant).   
Presented here is merely an interpretation of how we can map out which aspects of the project map to specific patterns. Pure simulation  
  
**Singleton:** *(At the time of typing this document, we haven't covered the singleton pattern but I'll provide a brief explanation). The singleton pattern allows for only one instance of a class to be created, and it is from this instance where all functions are performed. Typically, a getInstance() function is used to access the object.* Typically, a restaurant has one maitre d' hotel. As such, we can model the maitre d' hotel as a singleton. The object can then assign customers to tables which are catered for by specific waiters.  
  
**State:** We can model the customer's mood as a state, of which the customer can be happy or unhappy. We can expand on this and include other states such as dissatisfied, impatient or we can rename the given states that the customer may be in.  
  
**Strategy:** Since there are different ways to prepare a meal. For example, a steak can be roasted, grilled or fried. We can assign varying modes of food preparation to various strategies. That is, each method of preparation can be a concreteStrategy. **Chain of Responsibility:** The waiter takes the order of the customer and passes that on to the kitchen, where it is then passed on to different chefs who are in charge of different stages of meal preparation.  
**Template Method:** This comes into play when the some parts of a process are the same, save for a few instructions or steps. How we can apply the template method is that certain meals can have similar preparation steps. We can model such meals by having an algorithm that matches steps which are identical while accounting for varying actions in the process.

So far, I have only been able to identify five patterns that we can use in our project. Suggestions can be made as to which other patterns could be suited to the scenario, or changes that can be made to the patterns already discussed.