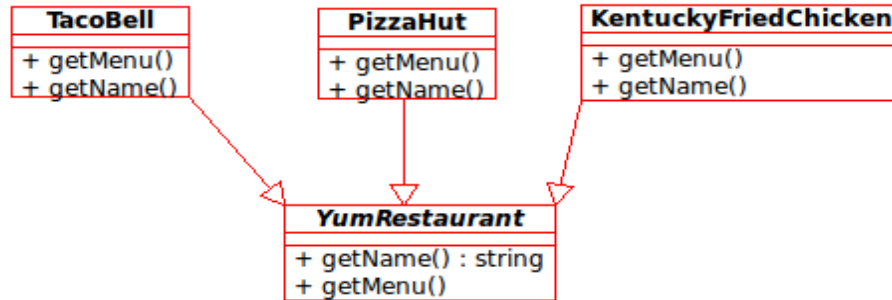


Q3 a)

Problem Description:

We have a program used by the Yum! Brand to keep track of businesses opened under the name of KFC, Taco Bell or Pizza Hut. Initially, the UML diagrams shows that there are three types of restaurants, KFC, Taco Bell and Pizza Hut. When someone opens a new restaurant, the program creates a new KFC, Taco Bell, or Pizza Hut object. If the brands under Yum change, for example, if we want to be able to create a restaurant under A&W, the client code needs to change. Applying the factory design pattern to the initial UML diagram to solve this problem.



b) The UML diagram after applying the factory pattern, additional classes are highlighted.

