**Task 3 – Creating a Class diagram and design pattern selection**

**Using Abstract Factory design pattern**

**The abstract factory design pattern is one of all creation patterns. The abstract factory pattern may be a bit like the factory pattern, and is considered to be another level of abstraction of the factory pattern. The abstract factory pattern revolves around super factories that create other factories. This design pattern belongs to the creation pattern, because this pattern provides the most effective way to form objects.**

**One advantage of using factory methods, including abstract factory methods, is that the details of creating objects are separated, the process of creating product objects is encapsulated, and specific classes are analyzed. Decouple product creation and invocation through interface calls in the client The abstract factory method is for a product series, which makes the exchange of product series easy. You can only use different product configurations by changing specific factories.**

**When the product objects in a series are designed to work at the same time and an application only uses the same series of objects. For example, the design system generates different styles of UI elements such as UI interfaces, buttons, borders, and they are unique in style and easy to use Abstract concept realization.**

