

### Semester 1 – Practical 3

Due Date 16 April 2024 **before 23:55**

You have recently learnt about a design pattern called the Decorator pattern. For this scenario you are required to create an application which aligns with this pattern. Your task is to analyse the given scenario, decide which classes to create and then implement the scenario as a C# console application.

JavaCo is a coffee shop in downtown Port Elizabeth. The following are some of the drinks which they serve:

- Coffee with milk and 1 sugar
- Tea with Lemon
- Coffee with froth and 2 sugars
- Hot chocolate with 3 marshmallows
- Black coffee with no milk and 1 sweetener
- Hot Chocolate with 1 sugar

**Remember**, you need classes which will align with the following entities: ComponentBase, ConcreteComponent, DecoratorBase and ConcreteDecorator. In your main program, ensure that you are able to create each of the drinks listed above.

In a word document please take screenshots of your code, as well as provide an explanation as to why this example reflects a decorator pattern, and draw a class diagram for this example.