Decorator Pattern Assignment

Description

- Suppose you were asked to implement a drawing tool
    - This drawing tool contains the shape supper class which includes draw() and getDescription functionalities
    - And you have two concrete class; Circle and Rectangle
- This tool enables us to draw circles and rectangles but we want to extend this tool to enable the user to decorate the shapes with
    - Fill-color
    - border-color
    - border-thickness
    - border-style; dashed , dotted

Drawing Tool Exercise

- We have a drawing tool, that has
  - Shape interface, which includes draw(), and description() methods
  - Colors and Border styles are defined as shown here
  - Requirement:
    - extend this tool to allow users to draw two concrete components; circle & rectangle
    - allow users to add features to shape (shape-decorators); such as fill-color, border-color, and border-thickness, border-style

```
public enum Color {
RED,
GREEN,
BLUE,
WHITE,
BLACK
}
```

```
public enum BorderStyle {
DASHED,
SOLID,
DOTTED,
WHITE,
BLACK
}
```

What to Submit

- Please show how decorator pattern can be applied on drawing tool, using class diagram
    - what is your main component, concrete components, main decorator, and concrete decorators
- Write code to show the implementation
- Write a class to test your code :
    - show in code how to draw circle, filled with red color, and has border with following properties, dashed border, in black, and has 2.0 as thickness