

```

//Structural pattern
//Bride pattern
// Abstraction
    interface Shape {
        void draw();
    }
// Refined Abstraction
    class Circle implements Shape {
        private Color color;

        Circle (Color color) {
            this.color = color;
        }

        public void draw() {
            System.out.print("Drawing Circle in ");
            color.fill();
        }
    }
// Implementor
    interface Color {
        void fill();
    }
// Concrete Implementor

    class Red implements Color {
        public void fill() {
            System.out.println("Red");
        }
    }

```

```

//Structural pattern
//Bride pattern
public class Bride_pattern {
    public static void main(String[] args) {

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        Shape circle = new Circle(new Red()

        );
        circle.draw();
        // Output: Drawing Circle in Red

    }

}

```

```

// Behavioral pattern
//Adapter pattern
interface MediaPlayer {

    void play (String audioType, String fileName);

}

class AudioPlayer implements MediaPlayer {

    public void play (String audioType, String fileName) {

        if (audioType.equalsIgnoreCase("mp3")) {

            System.out.println("Playing mp3 file: " + fileName);

        }
        else if (audioType.equalsIgnoreCase("vlc")) {

            System.out.println("Cannot play vlc file: " + fileName);

        }

    }

}

class MediaAdapter extends AudioPlayer {

    public void play(String audioType, String fileName) {

        if (audioType.equalsIgnoreCase("vlc")) {

            super.play("mp3", fileName);

        }

    }

}

```

```
    }  
}  
}
```

```
// Behavioral pattern  
//Adapter pattern  
public class Adapter_pattern {  
    public static void main(String[] args) {  
        MediaPlayer mediaPlayer = new MediaAdapter();  
        mediaPlayer.play("vlc", "song1.vlc");  
    }  
}
```

```
//creational pattern  
//Singleton pattern  
public class Singleton {  
    private static Singleton instance;  
    private String value;  
    private Singleton (String value) {  
        this.value = value;  
    }  
    public static Singleton getInstance(String value) {  
        if (instance == null) {  
            instance = new Singleton(value);  
        }  
        return instance;  
    }  
}
```

```
    }

    public String getValue() {
        return value;
    }

    public void setValue(String value) {
        this.value = value;
    }

    public static void main(String[] args) {
        Singleton singleton1 = Singleton.getInstance("First Instance");

        System.out.println(singleton1.getValue());
        // Output: First Instance

        Singleton singleton2 = Singleton.getInstance("Second Instance");

        System.out.println(singleton2.getValue());
        // Output: First Instance

        singleton2.setValue("Updated Instance");

        System.out.println(singleton1.getValue());
        // Output: Updated Instance
    }
}
```