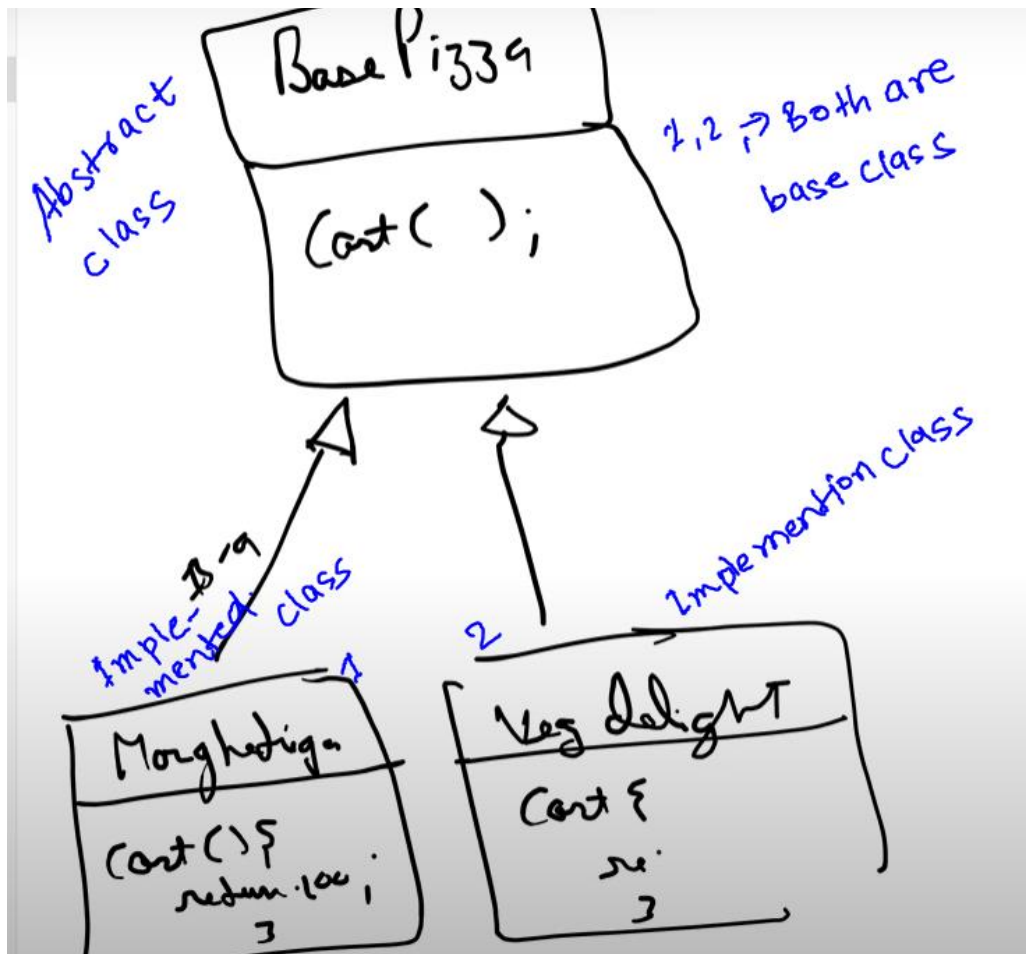
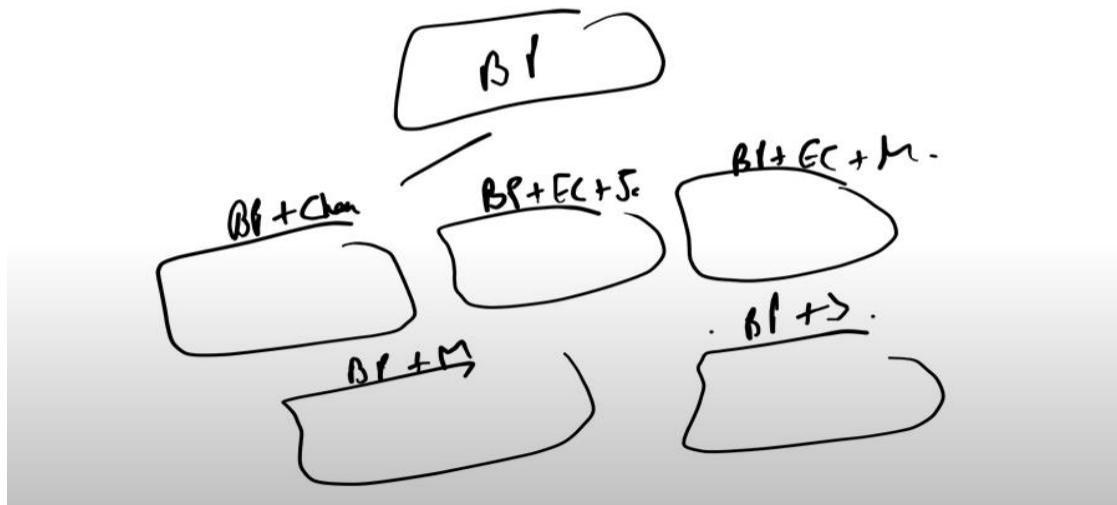
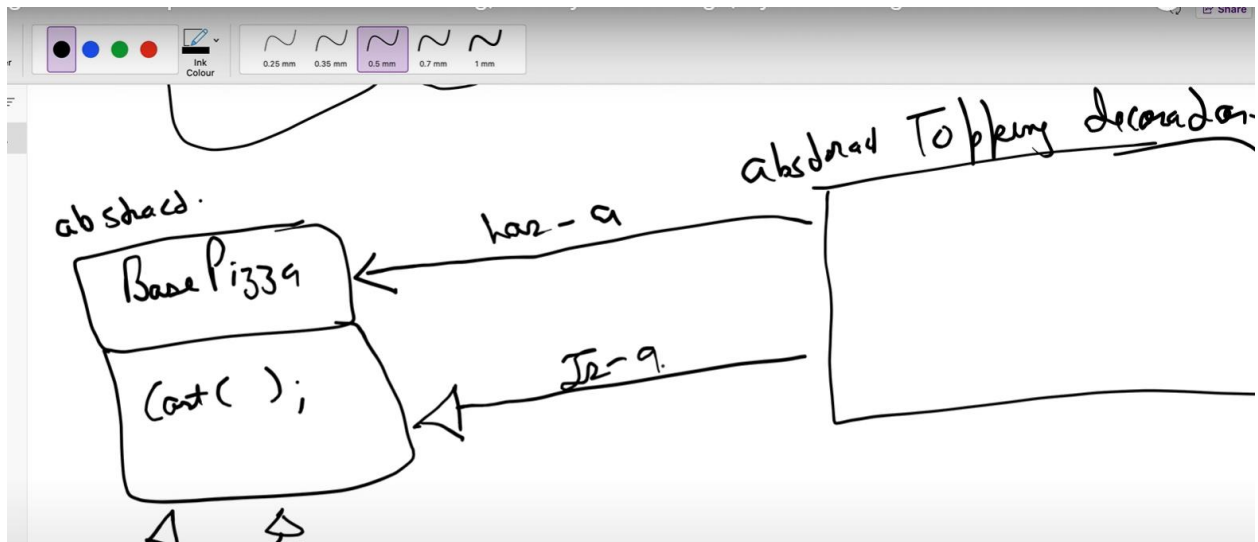


Why we need Decorator Pattern :

- To save From Class Explosion





```

package DecoratorDesignPattern.Base;

public abstract class BasePizza {
    public abstract int cost();
}
  
```

```

package DecoratorDesignPattern.Base;

public abstract class ToppinngDecorator extends
BasePizza{
}
  
```

```

package DecoratorDesignPattern.BaseImpl;

import DecoratorDesignPattern.Base.BasePizza;

public class Farmhouse extends BasePizza {
    @Override
    public int cost() {
        return 200;
    }
}
  
```

```
package DecoratorDesignPattern.BaseImpl;

import DecoratorDesignPattern.Base.BasePizza;

public class Marghrita extends BasePizza {
    @Override
    public int cost() {
        return 100;
    }
}
```

```
package DecoratorDesignPattern.BaseImpl;

import DecoratorDesignPattern.Base.BasePizza;

public class VegDelight extends BasePizza {
    @Override
    public int cost() {
        return 120;
    }
}
```

```
package DecoratorDesignPattern.Toopings;

import DecoratorDesignPattern.Base.BasePizza;
import
DecoratorDesignPattern.Base.ToppinngDecorator;

public class ExtraCheese extends ToppinngDecorator
{

    // first u need Base Pizza to apply toppings
    BasePizza basePizza;

    public ExtraCheese(BasePizza pizza)
    {
        this.basePizza = pizza;
    }
}
```

```

    }

    @Override
    public int cost() {
        //get the value of base pizza ,then add the
        value for toppings
        return this.basePizza.cost() + 10;
    }
}

```

```

package DecoratorDesignPattern.Toopings;

import DecoratorDesignPattern.Base.BasePizza;
import
DecoratorDesignPattern.Base.ToppinngDecorator;

public class ExtraMushroom extends
ToppinngDecorator {

    BasePizza basePizza;

    ExtraMushroom(BasePizza pizza)
    {
        this.basePizza = pizza;
    }
    @Override
    public int cost() {

        return this.basePizza.cost() + 20;
    }
}

```

```

package DecoratorDesignPattern;

import DecoratorDesignPattern.Base.BasePizza;
import DecoratorDesignPattern.BaseImpl.Marghrita;
import DecoratorDesignPattern.Toopings.ExtraCheese;

```

```
public class Pizza {  
    public static void main(String[] args) {  
        BasePizza MargExtrachhese = new  
ExtraCheese(new Marghrita());  
        int price = MargExtrachhese.cost();  
        System.out.println(price);  
    }  
}
```