Java: Functional Interface and Lambda Expression

"Concept && Coding" YT Video Notes

- What is Functional Interface?
- What is Lambda Expression?
- How to use Functional Interface with Lambda expression
- Advantage of Functional Interface?
- Types of Functional Interface?
  - Consumer
  - Supplier
  - Function
  - Predicate
- How to handle use case when Functional Interface extends from other Interface(or Functional Interface)?

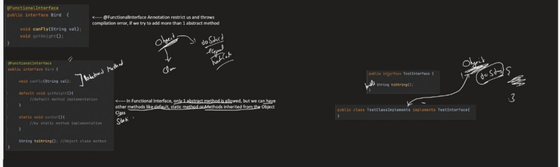
What is Functional Interface:

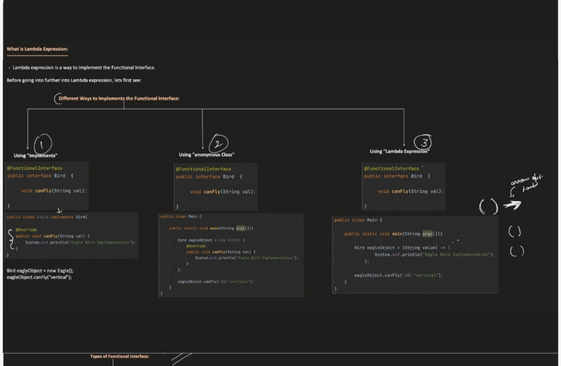
- If an interface contains only 1 abstract method, that is known as Functional Interface.
- Also know as SAM Interface (Single Abstract Method).
- @FunctionalInterface keyword can be used at top of the interface (But its optional).

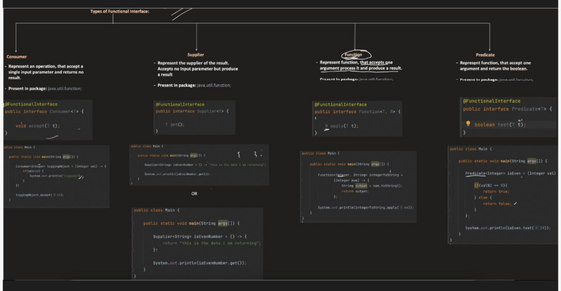
```
@FunctionalInterface
public interface Bird  {
     void canFly(String val);
}
```

OR

```
public interface Bird  {
     void canFly(String val);
}
```

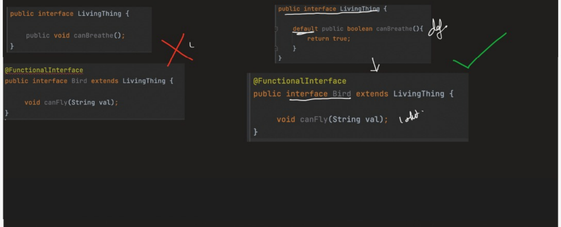






Handle use case when Functional Interface extends from other Interface:

Use Case 1: Functional Interface extending Non Functional Interface



Use Case 2: Interface extending Functional Interface

```
@FunctionalInterface
public interface LivingThing {

    public boolean canBreathe();
}
```

```
public interface Bird extends LivingThing {

     void canFly(String val);
}
```

Use Case 3: Functional Interface extending other Functional Interface