10 - Primary Bean

In Spring, when autowiring beans by type, conflicts can arise if multiple beans of the same type exist in the Spring container. Spring will be unable to determine which bean to inject and will throw an error.

To resolve these conflicts, Spring allows marking one of the beans as **primary**, which means that Spring will prefer this bean when performing autowiring.

- The **primary** attribute can be set to **true** on one of the beans of the same type. This marks the bean as the default choice for autowiring by type, giving it preference over other beans of the same type.
- The primary bean is injected automatically unless we explicitly specify a different bean using the ref attribute in the XML configuration.

Example:

```xml
<bean id="alien1" class="com.telusko.Alien" autowire="byType">
   <property name="age" value="21" />
</bean>


<bean id="comp" class="com.telusko.Laptop" primary="true"></bean>
<bean id="comp1" class="com.telusko.Desktop"></bean>
```

- Since both Laptop and Desktop beans implement the Computer interface, Spring would face a conflict when autowiring by type.
- However, by marking the Laptop bean as **primary**, Spring resolves the conflict and autowires the Laptop bean into the Alien class.

Output:

```
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Coding
Compiling using Laptop
```

★If we explicitly specify a reference to a bean, Spring will inject that bean, even if another bean is marked as primary. This allows us to manually control which bean is injected when needed.

Code Link:

https://github.com/navinreddy20/spring6-course/tree/c6690e4f2c70d8f530d70623f13d14ff0ffd7e7d/2%20Exploring%20Spring%20Framework/2.10%20Primary%20Bean/Spring1