13 - Inner Bean

In Spring, inner beans are beans defined inside another bean. This is useful when the inner bean is intended to be used only within the outer bean and doesn't need to be shared elsewhere.

Inner beans are generally used when the object is private to the outer bean and is not reused anywhere else in the application context.

👉 **Key Features of Inner Beans:**

- **Scoped within the outer bean:** The inner bean is available only to the outer bean and can't be accessed or injected into any other beans.
- **No need for an id:** While defining the inner bean, the id is not mandatory as it cannot be accessed outside the outer bean.
- **Lifecycle:** The inner bean will be created and destroyed along with the outer bean. It will have the same lifecycle as the outer bean.

Example:

```xml
<!-- Outer Bean -->
  <bean id="alien1" class="com.telusko.Alien">
    <property name="age" value="21" />

    <!-- Inner Bean -->
    <property name="comp">
      <bean class="com.telusko.Laptop" />
    </property>
  </bean>
</beans>
```

- Outer Bean (Alien): The Alien class has a property comp of type Laptop, which is injected with the inner bean.
- Inner Bean (Laptop): This inner bean is defined inside the <property> tag for comp and provides an instance of the Laptop class. It will be created only when the outer bean (Alien) is instantiated.

Code Link:

https://github.com/navinreddy20/spring6-course/tree/c6690e4f2c70d8f530d70623f13d14ff0ffd7e7d/2%20Exploring%20Spring%20Framework/2.13%20InnerBean/Spring1

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