



# Spring Bean Scopes

# Spring Bean Scopes

- Singleton - (default) Only one instance of the bean is created in the IoC container.
- Prototype - A new instance is created each time the bean is requested.
- Request - A single instance per http request. Only valid in the context of a web-aware Spring ApplicationContext.
- Session - A single instance per http session. Only valid in the context of a web-aware Spring ApplicationContext.

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- Global-session - A single instance per global session. Typically Only used in a Portlet context. Only valid in the context of a web-aware Spring ApplicationContext.
- Application - bean is scoped to the lifecycle of a ServletContext. Only valid in the context of a web aware.
- Websocket - Scopes a single bean definition to the lifecycle of a WebSocket. Only valid in the context of a web-aware Spring ApplicationContext.

# Spring Bean Scopes

- Custom Scope - Spring Scopes are extensible, and you can define your own scope by implementing Spring's 'Scope' interface.
- See Spring's Java docs for details.
- You cannot override the built in Singleton and Prototype Scopes

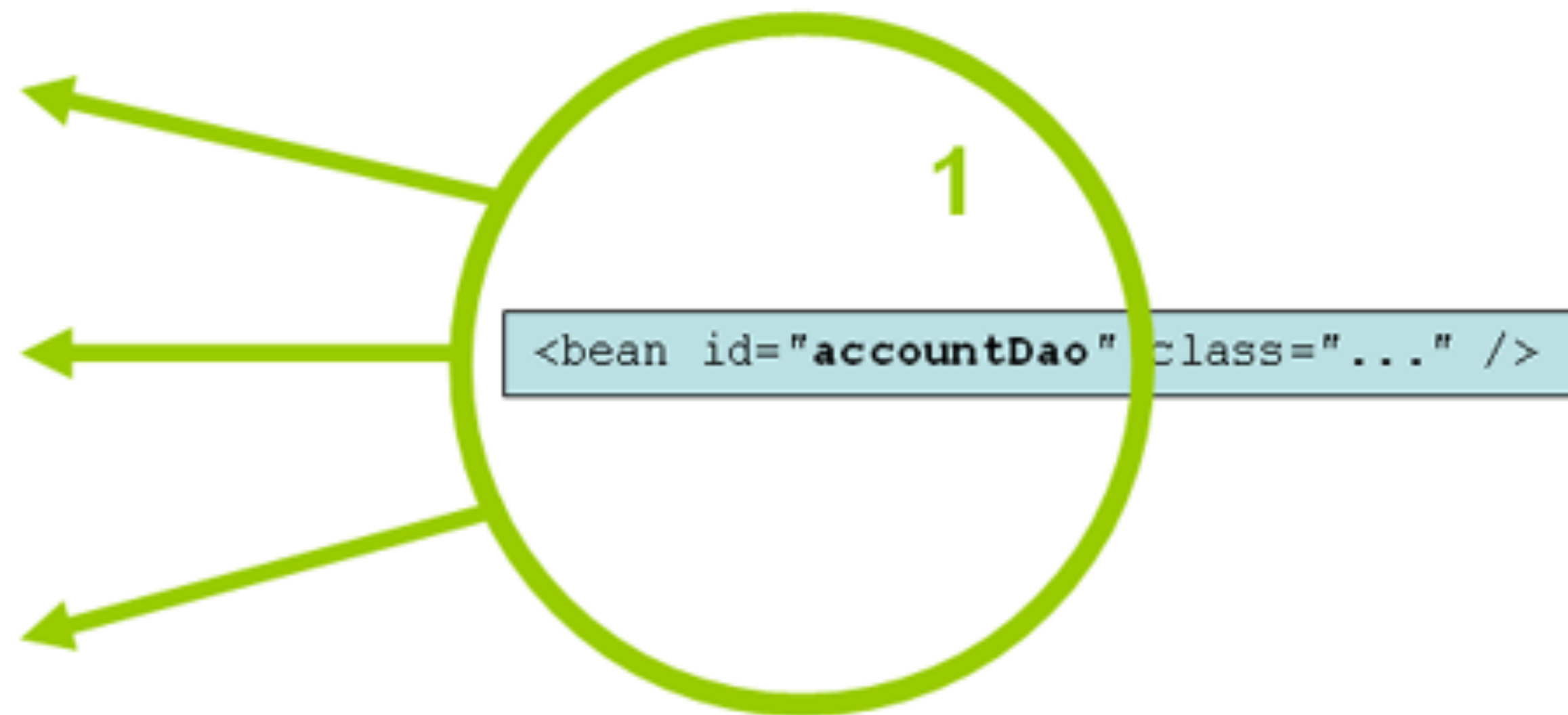
# Singleton Scope

```
<bean id="..." class="...">  
  <property name="accountDao"  
    ref="accountDao"/>  
</bean>
```

```
<bean id="..." class="...">  
  <property name="accountDao"  
    ref="accountDao"/>  
</bean>
```

```
<bean id="..." class="...">  
  <property name="accountDao"  
    ref="accountDao"/>  
</bean>
```

**Only one instance is ever created...**



**... and this same shared instance is injected into each collaborating object**



# Prototype Scope

```
<bean id="..." class="...">  
  <property name="accountDao"  
    ref="accountDao"/>  
</bean>
```

**A brand new bean instance is created...**

1

```
<bean id="..." class="...">  
  <property name="accountDao"  
    ref="accountDao"/>  
</bean>
```

2

```
<bean id="accountDao" class="..."  
  scope="prototype" />
```

```
<bean id="..." class="...">  
  <property name="accountDao"  
    ref="accountDao"/>  
</bean>
```

3

**... each and every time the prototype is referenced by collaborating beans**

# Declaring Bean Scope

- No declaration needed for singleton scope.
- In Java configuration use `@Scope` annotation
- In XML configuration scope is an XML attribute of the 'bean' tag



