Assignment 01

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A screenshot of a computer program

AI-generated content may be incorrect.

1. **What does singleton scope mean in Spring?**

In Spring, a singleton-scope bean means that Spring application context manages a single reusable instance of the bean per container. The container ensures that only one instance of the bean is created and shared throughout the application’s lifetime.

1. **What is the difference between singleton and prototype?**

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| --- | --- |
| Singleton Scope | Prototype Scope |
| Manage a single Instance of the bean for the entire application. | Creates a new Instance of the bean each time it is requested. |
| The same bean instance is shared across multiple injections. | A separate bean instance is provided for each request. |
| Managed by the Spring container throughout the application lifecycle. | Not managed beyond the initial instantiation the developer is responsible for disposal. |

1. **How does Spring know which constructor to use in XML?**

Used Based on <constructor-arg> elements inside the bean definition.

* If there is only one constructor – Spring automatically uses it.
* If there are multiple constructors – Spring chooses the one that matches the number and type of arguments specified in <constructor-arg>.

1. **What will happen if you try to inject value into a bean, but the constructor doesn't match?**

Constructor does not match, Spring will throw a **BeanCreationException** during application startup.

Example Error: Exception in thread "main" org.springframework.beans.factory.UnsatisfiedDependencyException: Error creating bean with name 'superMan' defined in class path resource [heroes.xml]: Unsatisfied dependency expressed through constructor parameter 1: Ambiguous argument values for parameter of type [java.lang.Integer] - did you specify the correct bean references as arguments?