

Circular dependency is a situation which arises when one bean depend upon another bean Directly or indirectly.

EmployeeServices -> departmentService -> EmployService
The spring is not able decide which bean is to be initialize first
The exception is called bean creation exceptions

Causes of circular dependency
Improper designed Application Structure
misUse of spring annotation
constructor injection for the dependent beans

How to resolve the circular Dependencies
We can design new classes and interface to break the loop
Use Design pattern

.Spring -specific Solutions
Use the setter injection for the dependent beans
@Lazy Loading
Use @PostConstructor Annotation
Refactoring to service Locator Pattern use the central repository to access the services and dependencies allow to avoid constructor injection and manually control how dependencies are resolve

Use the setter injection and set the properties in the
Application.properties
Spring.main.allow-circular-references=true