Spring Professional Exam Tutorial v5.0

Question 03

Question 03 - What is a web application context? What extra scopes does it offer?

Web Application Context is a Spring Application Context for Web Applications that runs under Embedded or Standalone Application Server that supports Servlet API and acts as Servlet Container.

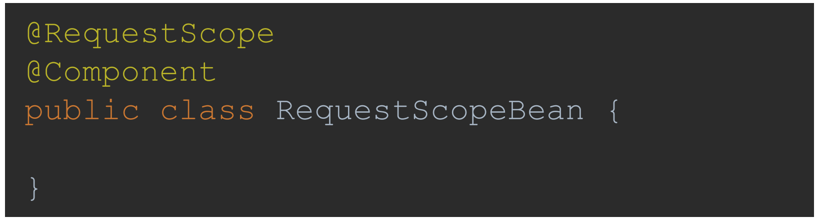
Web Application Context is described by `WebApplicationContext` interface and it allows you to access `ServletContext` interface from Servlet API.

Web Application Context provides four additional scopes:

- Request Scope
- Session Scope
- Application Scope
- Websocket Scope

Question 03 - What is a web application context? What extra scopes does it offer?

- Request Scope
  - Defined by `@RequestScope` annotation
  - Bean lifecycle is tightly coupled with HTTP Request lifecycle
  - New Bean instance is created for each request

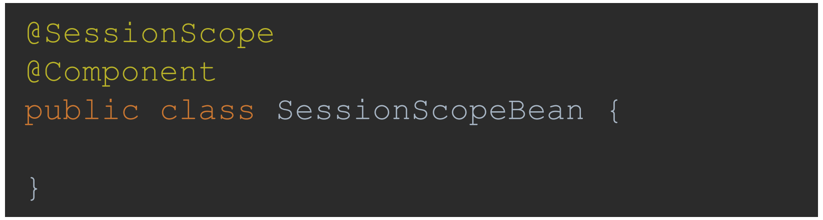


```
@RequestScope
@Component
public class RequestScopeBean {

}
```

Question 03 - What is a web application context? What extra scopes does it offer?

- Session Scope
  - Defined by `@SessionScope` annotation
  - Bean lifecycle is tightly coupled with HTTP Session lifecycle
  - New Bean is created for each new session and Bean instance lives as long as HTTP Session is alive

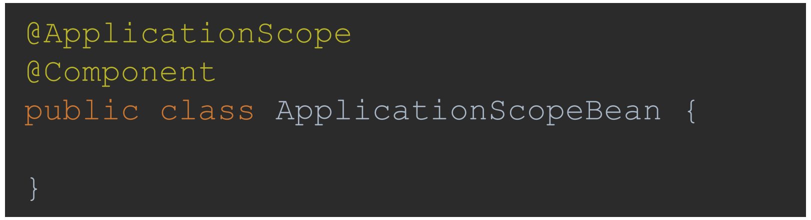


```
@SessionScope
@Component
public class SessionScopeBean {

}
```

Question 03 - What is a web application context? What extra scopes does it offer?

- Application Scope
  - Defined by `@ApplicationScope` annotation
  - Bean lifecycle is tightly coupled with `ServletContext`
  - One Bean instance available per entire Web Application - `ServletContext`
  - Differences compared to Singleton Bean:
    - Singleton per `ServletContext`, not per Spring Application Context (one Web Application may have several Spring Application Contexts)
    - Exposed via attribute of `ServletContext`

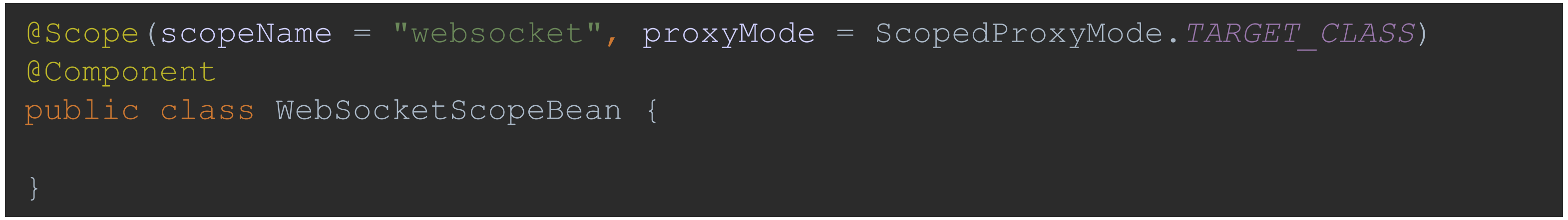


```
@ApplicationScope
@Component
public class ApplicationScopeBean {

}
```

Question 03 - What is a web application context? What extra scopes does it offer?

- Websocket Scope
  - Defined by `@Scope` annotation with specified properties:
    - `@Scope(scopeName = "websocket", proxyMode = ScopedProxyMode.TARGET_CLASS)`
  - Bean lifecycle is coupled with lifecycle of WebSocket Session, however bean usually lives longer then WebSocket Session



```
@Scope(scopeName = "websocket", proxyMode = ScopedProxyMode.TARGET_CLASS)
@Component
public class WebSocketScopeBean {

}
```