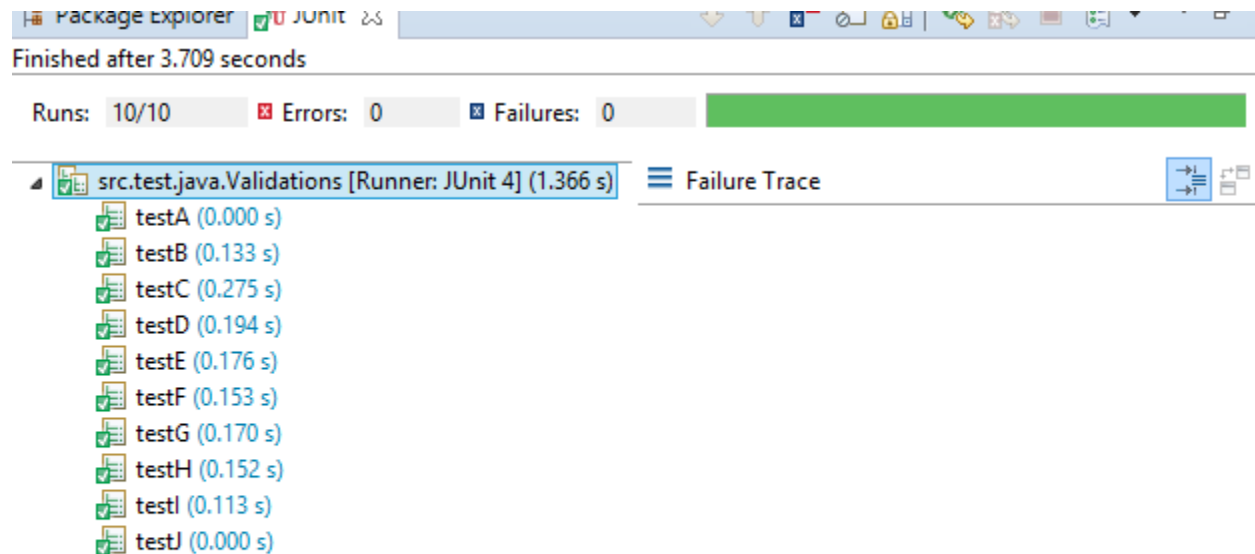


Output:



Oct 06, 2015 8:43:24 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@26b72884: startup date [Tue Oct 06 20:43:24 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:24 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case A

Bob trying to access Alice's Secret without it being shared. We get an Exception.

<<<<AspectJ>>>> DoBefore() is running. It intercepted : storeSecret

Alice creates a secret with ID e2c8af25-8a20-44d2-acc8-17347f6c1966

<<<<AspectJ>>>> DoBefore() is running. It intercepted : readSecret

parameters [Ljava.lang.Object;@149e8424

<< Bob is trying to access e2c8af25-8a20-44d2-acc8-17347f6c1966 >>

Throw Exception : Not Authorized for Bob to read e2c8af25-8a20-44d2-acc8-17347f6c1966

Oct 06, 2015 8:43:26 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@6f1c5be4: startup date [Tue Oct 06 20:43:26 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:26 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case B

Bob trying to access Alice's Secret after it being shared. Bob can read this secret.

<<<<AspectJ>>>> DoBefore() is running. It intercepted : storeSecret

```
Alice creates a secret with ID 0a9912cf-2047-48be-afa5-4a02e59bde80
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 0a9912cf-2047-48be-afa5-4a02e59bde80 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : readSecret
  parameters [Ljava.lang.Object;@5034ce92
<< Bob is trying to access 0a9912cf-2047-48be-afa5-4a02e59bde80 >>
Valid User :Bob has access to read 0a9912cf-2047-48be-afa5-4a02e59bde80
Bob reads the secret of ID 0a9912cf-2047-48be-afa5-4a02e59bde80
Test Completed with no exception!
```

```
-----
Oct 06, 2015 8:43:26 PM
org.springframework.context.support.AbstractApplicationContext prepareRefresh
INFO: Refreshing
org.springframework.context.support.ClassPathXmlApplicationContext@3ae5fc61: startup
date [Tue Oct 06 20:43:26 PDT 2015]; root of context hierarchy
Oct 06, 2015 8:43:26 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader
loadBeanDefinitions
INFO: Loading XML bean definitions from class path resource [spring.xml]
Test Case C
Alice shares her secret with Bob. Bob shares Alice's secret with Carl. Carl can read
it
```

```
-----
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID b1919a29-11e3-4898-ae6b-ef59847c56ae
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID b1919a29-11e3-4898-ae6b-ef59847c56ae with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Bob shares the secret of ID b1919a29-11e3-4898-ae6b-ef59847c56ae with Carl
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : readSecret
  parameters [Ljava.lang.Object;@3b7418ba
<< Carl is trying to access b1919a29-11e3-4898-ae6b-ef59847c56ae >>
Valid User :Carl has access to read b1919a29-11e3-4898-ae6b-ef59847c56ae
Carl reads the secret of ID b1919a29-11e3-4898-ae6b-ef59847c56ae
Test Completed with no exception!
```

```
-----
Oct 06, 2015 8:43:26 PM
org.springframework.context.support.AbstractApplicationContext prepareRefresh
INFO: Refreshing
org.springframework.context.support.ClassPathXmlApplicationContext@430379d4: startup
date [Tue Oct 06 20:43:26 PDT 2015]; root of context hierarchy
Oct 06, 2015 8:43:26 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader
loadBeanDefinitions
INFO: Loading XML bean definitions from class path resource [spring.xml]
Test Case D
Alice shares her secret with Bob. Bob shares Carl's secret with Alice. We get an
Exception!
```

```
--
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID 3a3b4368-1318-4aa0-8c67-9279c6b2219d
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 3a3b4368-1318-4aa0-8c67-9279c6b2219d with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Carl creates a secret with ID becc40cf-5bf5-4549-8091-b6824e25a5fb
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
```

Throw Exception : Not authorised for Bob to share becc40cf-5bf5-4549-8091-b6824e25a5fb with Alice

Oct 06, 2015 8:43:27 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@54c4e0d3: startup date [Tue Oct 06 20:43:27 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:27 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case E

Alice shares her secret with Bob. Bob shares Alice's secret with Carl. Alice unshares her secret with Carl. Carl can't read this secret!

<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID 48ff4d04-0783-45b4-84d9-8394d8795446
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 48ff4d04-0783-45b4-84d9-8394d8795446 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Bob shares the secret of ID 48ff4d04-0783-45b4-84d9-8394d8795446 with Carl
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : unshareSecret
Alice unshares the secret of ID 48ff4d04-0783-45b4-84d9-8394d8795446 with Carl
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : readSecret
parameters [Ljava.lang.Object;@2cb2d899
<< Carl is trying to access 48ff4d04-0783-45b4-84d9-8394d8795446 >>
Throw Exception : Not Authorized for Carl to read 48ff4d04-0783-45b4-84d9-8394d8795446

Oct 06, 2015 8:43:27 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@11aa3bbc: startup date [Tue Oct 06 20:43:27 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:27 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case F

Alice shares her secret with Bob. Alice shared her secret with Carl. Carl shares Alice's secret with Bob. Alice unshares her secret with Bob. Bob can't read this secret!

<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID 61a64765-ea83-4d9b-b8db-94be8e602399
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 61a64765-ea83-4d9b-b8db-94be8e602399 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 61a64765-ea83-4d9b-b8db-94be8e602399 with Carl
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Carl shares the secret of ID 61a64765-ea83-4d9b-b8db-94be8e602399 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : unshareSecret
Alice unshares the secret of ID 61a64765-ea83-4d9b-b8db-94be8e602399 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : readSecret
parameters [Ljava.lang.Object;@72f8a19f
<< Bob is trying to access 61a64765-ea83-4d9b-b8db-94be8e602399 >>

Throw Exception : Not Authorized for Bob to read 61a64765-ea83-4d9b-b8db-94be8e602399

Oct 06, 2015 8:43:27 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@213b08b1: startup date [Tue Oct 06 20:43:27 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:27 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case G

Alice shares her secret with Bob. Bob shares Alice's secret with Carl. Alice unshares her secret with Bob. Bob shares Alice's secret with Carl again. We get an exception. But Carl can still read this secret.

<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID 0c9f9b93-5a23-4607-8332-b57acb0ed08d
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 0c9f9b93-5a23-4607-8332-b57acb0ed08d with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Bob shares the secret of ID 0c9f9b93-5a23-4607-8332-b57acb0ed08d with Carl
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : unshareSecret
Throw Exception :Bob hasn't shared 0c9f9b93-5a23-4607-8332-b57acb0ed08d

Oct 06, 2015 8:43:27 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@2ea54d32: startup date [Tue Oct 06 20:43:27 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:27 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case H

Alice shares secret with Bob. Carl tries to unshare with Bob. We get an exception

<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID edaf5d0f-a1f6-44ec-bae0-0f2596f5a724
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID edaf5d0f-a1f6-44ec-bae0-0f2596f5a724 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : unshareSecret
Throw Exception :Carl hasn't shared edaf5d0f-a1f6-44ec-bae0-0f2596f5a724

Oct 06, 2015 8:43:27 PM

org.springframework.context.support.AbstractApplicationContext prepareRefresh

INFO: Refreshing

org.springframework.context.support.ClassPathXmlApplicationContext@5ebd50b9: startup date [Tue Oct 06 20:43:27 PDT 2015]; root of context hierarchy

Oct 06, 2015 8:43:27 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader loadBeanDefinitions

INFO: Loading XML bean definitions from class path resource [spring.xml]

Test Case I

Alice shares secret with Bob. Bob shares it with Carl. Alice unshares it with Bob. Bob shares it with Carl with again. We get an exception

<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID 2a842f10-2259-40d9-bf6d-d917102c97b4

```
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : shareSecret
Alice shares the secret of ID 2a842f10-2259-40d9-bf6d-d917102c97b4 with Bob
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : unshareSecret
Throw Exception :Bob hasn't shared 2a842f10-2259-40d9-bf6d-d917102c97b4
Oct 06, 2015 8:43:27 PM
org.springframework.context.support.AbstractApplicationContext prepareRefresh
INFO: Refreshing
org.springframework.context.support.ClassPathXmlApplicationContext@c6c2bc3: startup
date [Tue Oct 06 20:43:27 PDT 2015]; root of context hierarchy
Oct 06, 2015 8:43:27 PM org.springframework.beans.factory.xml.XmlBeanDefinitionReader
loadBeanDefinitions
INFO: Loading XML bean definitions from class path resource [spring.xml]
Test Case H
Alice stores the same secrete object twice, and get two different UUIDs
-----
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID 5adba715-a9d6-484d-8e3a-775fb93f971c
<<<<<AspectJ>>>>> DoBefore() is running. It intercepted : storeSecret
Alice creates a secret with ID e80c1dfd-b541-4b9b-8c3c-85a488c64f2a
Test Completed with no exception!
-----
```

testA: pass
testB: pass
testC: pass
testD: pass
testE: pass
testF: pass
testG: pass
testH: pass
testI: pass
testJ: pass