Quiz W2D2: Spring Context & DI

CS544 EA – April 2014

What is the output of the code shown below, and on the back:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns=http://www.springframework.org/schema/beans ...>

	<bean id="classA" class="w1d1.ClassA" init-method="init"
		destroy-method="destroy" scope="prototype">
		<constructor-arg value="Hello" />
		<property name="classB" ref="classB" />
	</bean>

	<bean id="classB" class="w1d1.ClassB" init-method="init"
		destroy-method="destroy" lazy-init="true">
		<property name="text" value="World" />
	</bean>

	<bean id="classC" class="w1d1.ClassC" />
</beans>
```

```java
public class Application {
	public static void main(String[] args) {
		ConfigurableApplicationContext context = new
			ClassPathXmlApplicationContext("w1d1/springconfig.xml");
		System.out.println("Testing Spring Startup");
		ClassA classA = context.getBean("classA", ClassA.class);
		classA.showText();
		context.close();
	}
}
```

```java
public class ClassA {
	private String text;
	private ClassB classB;

	public ClassA(String text) {
		this.text = text;
		System.out.println("Class A constructor - text: " + text);
	}

	public void setClassB(ClassB classB) { this.classB = classB; }

	public void showText() {
		System.out.println("Class A text: " + text);
		classB.showText();
	}

	public void init() { System.out.println("Class A init - text: " + text); }

	public void destroy() { System.out.println("Class A destroy"); }
}
```

```java
public class ClassB {
      private String text;

      public ClassB() { System.out.println("Class B constructor - text: " + text); }

      public void setText(String text) { this.text = text; }

      public void showText() { System.out.println("Class B text: " + text); }

      public void init() { System.out.println("Class B init - text: " + text); }

      public void destroy() { System.out.println("Class B destroy"); }
}
```

```java
public class ClassC {
      public ClassC() { System.out.println("Class C constructor"); }
}
```

Output:

Class C constructor
Testing Spring Startup
Class A constructor - text: Hello
Class B constructor - text: null
Class B init - text: World
Class A init - text: Hello
Class A text: Hello
Class B text: World
Class B destroy