

Spring Autowiring by Constructor

- In Spring, “Autowiring by Constructor” is actually autowiring by Type in constructor argument. It means, if data type of a bean is same as the data type of other bean constructor argument, auto wire it.

- **Example:**

1. Create an Engine.java class

```
12 public class Engine {  
13  
14     private String engineID;  
15     private String validity;  
16  
17     public String getEngineID() {  
18         return engineID;  
19     }  
20     public void setEngineID(String engineID) {  
21         this.engineID = engineID;  
22     }  
23     public String getValidity() {  
24         return validity;  
25     }  
26     public void setValidity(String validity) {  
27         this.validity = validity;  
28     }  
29     @Override  
30     public String toString() {  
31         return "Engine [engineID=" + engineID + ", validity=" + validity + "];"  
32     }  
33 }
```

2. Create Truck.java class.

```
12 public class Truck {  
13  
14     private Engine engine;  
15  
16     public Truck(Engine engine) {  
17  
18         this.engine = engine;  
19     }  
20  
21     public Engine getEngine() {  
22         return engine;  
23     }  
24  
25 }
```

3. Configure Truck and Engine classes in Spring-Core.xml configuration file.

```

10 <beans xmlns="http://www.springframework.org/schema/beans"
11     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
12     xsi:schemaLocation="http://www.springframework.org/schema/beans
13     http://www.springframework.org/schema/beans/spring-beans-3.0.xsd">
14
15     <bean id="engine" class="com.java2learn.core.Engine">
16         <property name="engineID" value="123"></property>
17         <property name="validity" value="3Yrs."></property>
18     </bean>
19     <bean id="truck" class="com.java2learn.core.Truck" autowire="constructor"/>
20
21 </beans>

```

4. Create the client program.

```

10 package com.java2learn.app;
11
12 import org.springframework.context.ApplicationContext;
13 import org.springframework.context.support.ClassPathXmlApplicationContext;
14 import com.java2learn.core.Truck;
15
16 public class ApplicationContextDemo {
17
18     public static void main(String[] args) {
19

```

```

        ApplicationContext applicationContext=new
        ClassPathXmlApplicationContext("Spring-Core.xml");
        Truck truck=(Truck)applicationContext.getBean("truck");
        System.out.println("Validity::"+truck.getEngine().getValidity());
        System.out.println("Engine ID::"+truck.getEngine().getEngineID());

    }
}

```

➤ **Output:**
 Validity::3Yrs.
 Engine ID::123