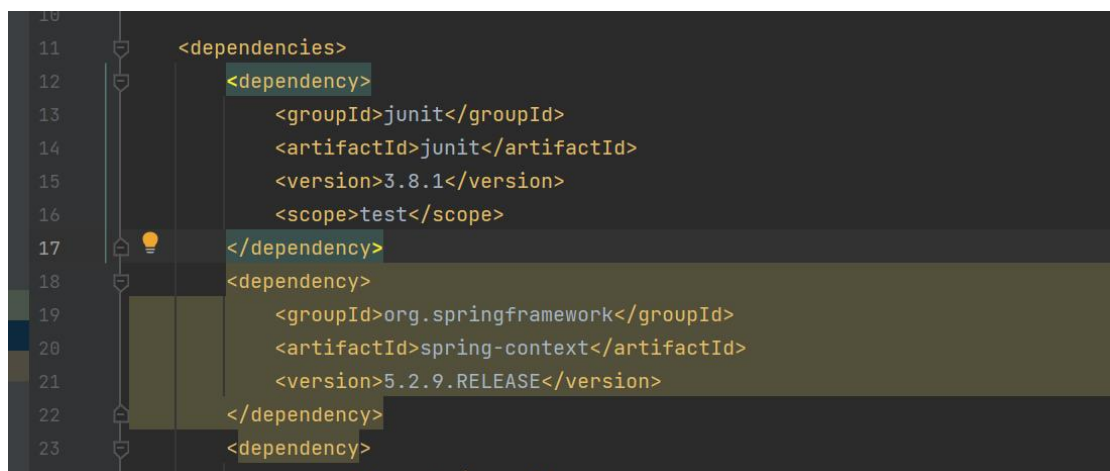
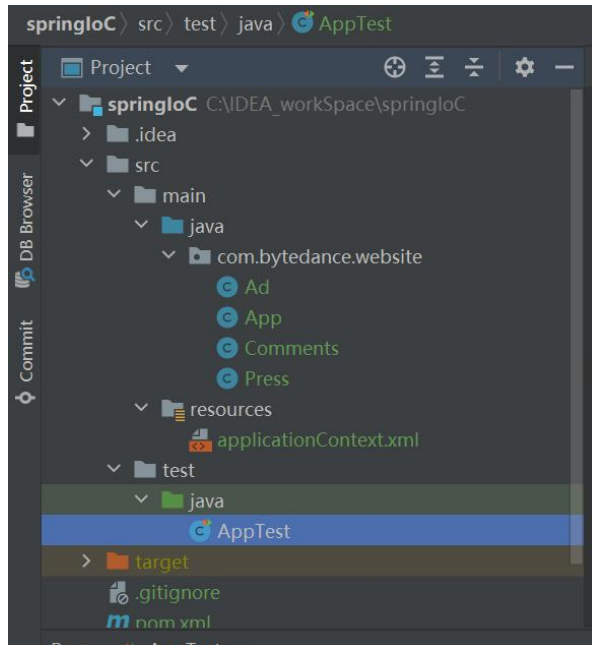


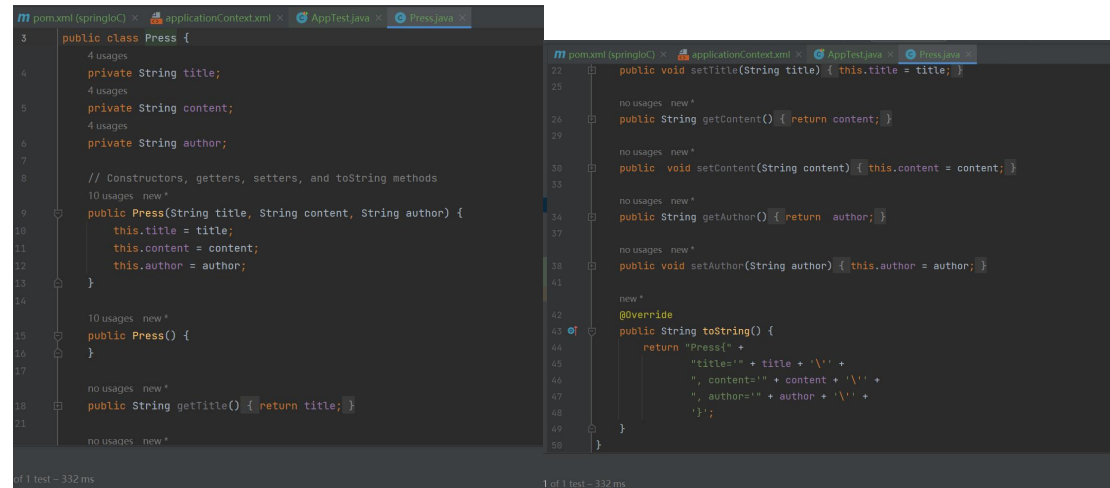
springIoC_PressAdComments

1. File Structure & POM:



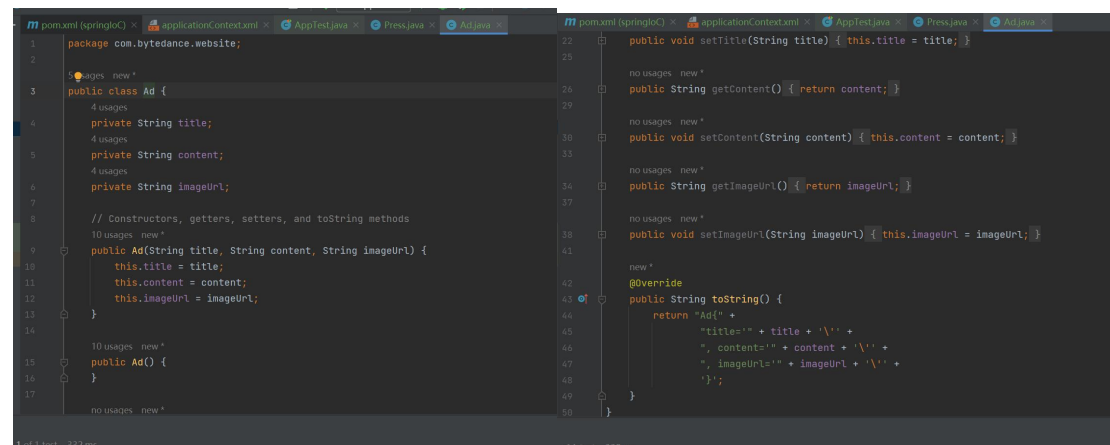
2. Java Classes:

2.1. Press



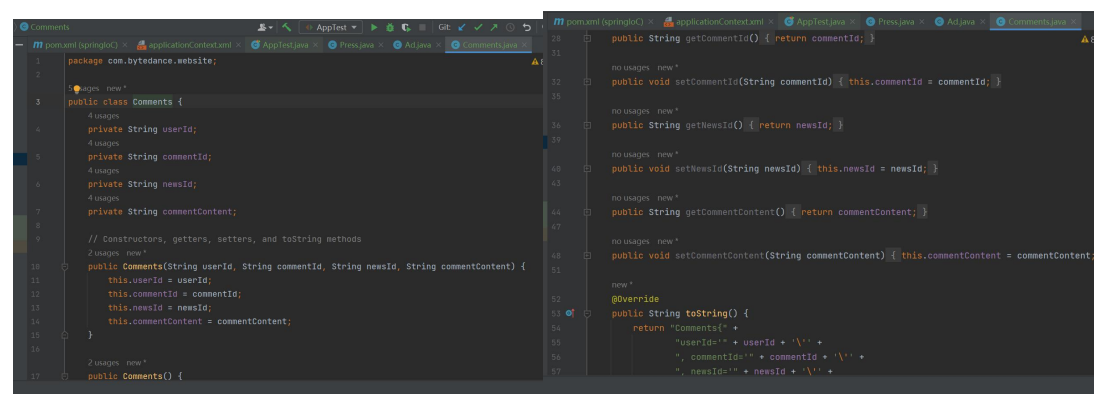
```
3 public class Press {
4     private String title;
5     private String content;
6     private String author;
7
8     // Constructors, getters, setters, and toString methods
9     public Press(String title, String content, String author) {
10         this.title = title;
11         this.content = content;
12         this.author = author;
13     }
14
15     public Press() {
16     }
17
18     public String getTitle() { return title; }
19
20     public void setTitle(String title) { this.title = title; }
21
22     public String getContent() { return content; }
23
24     public void setContent(String content) { this.content = content; }
25
26     public String getAuthor() { return author; }
27
28     public void setAuthor(String author) { this.author = author; }
29
30     @Override
31     public String toString() {
32         return "Press{" +
33             "title='" + title + '\'' +
34             ", content='" + content + '\'' +
35             ", author='" + author + '\'' +
36             '}';
37     }
38 }
```

2.2. Ad



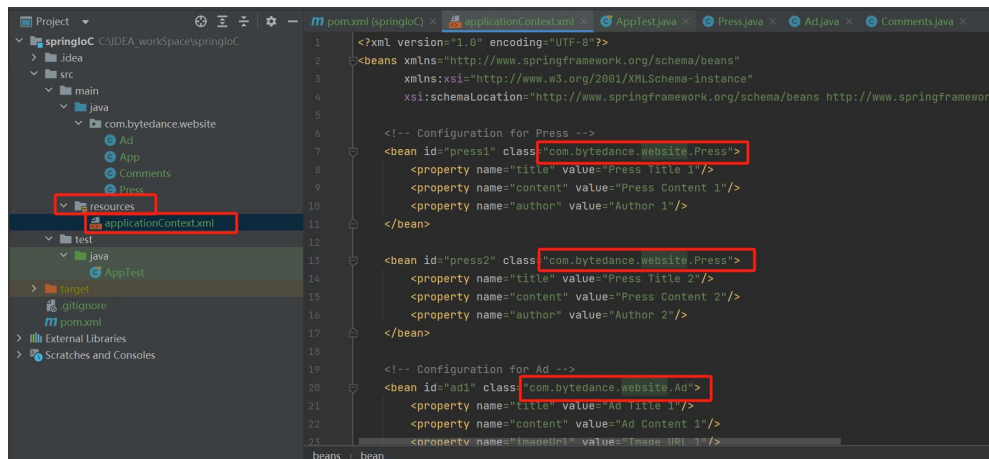
```
1 package com.bytedance.website;
2
3 public class Ad {
4     private String title;
5     private String content;
6     private String imageUrl;
7
8     // Constructors, getters, setters, and toString methods
9     public Ad(String title, String content, String imageUrl) {
10         this.title = title;
11         this.content = content;
12         this.imageUrl = imageUrl;
13     }
14
15     public Ad() {
16     }
17
18     public void setTitle(String title) { this.title = title; }
19
20     public String getContent() { return content; }
21
22     public void setContent(String content) { this.content = content; }
23
24     public String getImageUrl() { return imageUrl; }
25
26     public void setImageUrl(String imageUrl) { this.imageUrl = imageUrl; }
27
28     @Override
29     public String toString() {
30         return "Ad{" +
31             "title='" + title + '\'' +
32             ", content='" + content + '\'' +
33             ", imageUrl='" + imageUrl + '\'' +
34             '}';
35     }
36 }
```

2.3. Comments



```
1 package com.bytedance.website;
2
3 public class Comments {
4     private String userId;
5     private String commentId;
6     private String newsId;
7     private String commentContent;
8
9     // Constructors, getters, setters, and toString methods
10    public Comments(String userId, String commentId, String newsId, String commentContent) {
11        this.userId = userId;
12        this.commentId = commentId;
13        this.newsId = newsId;
14        this.commentContent = commentContent;
15    }
16
17    public Comments() {
18    }
19
20    public String getCommentId() { return commentId; }
21
22    public void setCommentId(String commentId) { this.commentId = commentId; }
23
24    public String getNewsId() { return newsId; }
25
26    public void setNewsId(String newsId) { this.newsId = newsId; }
27
28    public String getCommentContent() { return commentContent; }
29
30    public void setCommentContent(String commentContent) { this.commentContent = commentContent; }
31
32    @Override
33    public String toString() {
34        return "Comments{" +
35            "userId='" + userId + '\'' +
36            ", commentId='" + commentId + '\'' +
37            ", newsId='" + newsId + '\'' +
38            ", commentContent='" + commentContent + '\'' +
39            '}';
40    }
41 }
```

3. applicationContext.xml(set.xml) --- Under the 'resource' folder, so do not need to declare in POM



```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
       xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
       xsi:schemaLocation="http://www.springframework.org/schema/beans http://www.springframework.org/schema/beans.xsd">

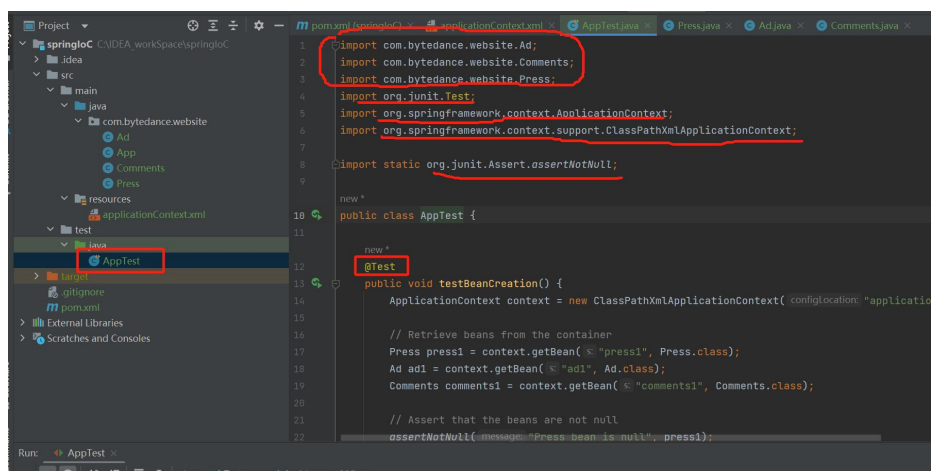
    <!-- Configuration for Press -->
    <bean id="press1" class="com.bytedance.website.Press">
        <property name="title" value="Press Title 1"/>
        <property name="content" value="Press Content 1"/>
        <property name="author" value="Author 1"/>
    </bean>

    <bean id="press2" class="com.bytedance.website.Press">
        <property name="title" value="Press Title 2"/>
        <property name="content" value="Press Content 2"/>
        <property name="author" value="Author 2"/>
    </bean>

    <!-- Configuration for Ad -->
    <bean id="ad1" class="com.bytedance.website.Ad">
        <property name="title" value="Ad Title 1"/>
        <property name="content" value="Ad Content 1"/>
        <property name="imageUrl" value="Trade URL 1"/>
    </bean>

</beans>
```

4. 'AppTest' under the 'test' folder



```
import com.bytedance.website.Ad;
import com.bytedance.website.Comments;
import com.bytedance.website.Press;
import org.junit.Test;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import static org.junit.Assert.assertNotNull;

public class AppTest {

    @Test
    public void testBeanCreation() {
        ApplicationContext context = new ClassPathXmlApplicationContext("applicationContext.xml");

        // Retrieve beans from the container
        Press press1 = context.getBean("press1", Press.class);
        Ad ad1 = context.getBean("ad1", Ad.class);
        Comments comments1 = context.getBean("comments1", Comments.class);

        // Assert that the beans are not null
        assertNotNull("Press bean is null", press1);
    }
}
```

```
@Test
public void testBeanCreation() {
    ApplicationContext context = new ClassPathXmlApplicationContext("applicationContext.xml");

    // Retrieve beans from the container
    Press press1 = context.getBean("press1", Press.class);
    Ad ad1 = context.getBean("ad1", Ad.class);
    Comments comments1 = context.getBean("comments1", Comments.class);

    // Assert that the beans are not null
    assertNotNull("Press bean is null", press1);
    assertNotNull("Ad bean is null", ad1);
    assertNotNull("Comments bean is null", comments1);

    // Print the retrieved beans
    System.out.println("Press 1: " + press1);
    System.out.println("Ad 1: " + ad1);
    System.out.println("Comments 1: " + comments1);
}
```

5. Output

