

Polymorphism

Publication and its subclasses

You are given four classes — `Publication` , `Newspaper` , `Article` and `Announcement` . You need to override the methods `getType()` and `getDetails()` in classes inherited from the class `Publication` . `getType()` should show the kind of publication, like a newspaper, and `getDetails()` should show the class attribute, such as the source.

Then you need to implement `getInfo()` in the class `Publication` using `getType()` and `getDetails()` . The method should return a `String` with a type of publication in the first place, then details in round brackets and the title after a colon. Examples are shown below.

Sample Input 1:

```
In [ ]: Publication; The new era
```

Sample Output 1::

```
In [ ]: Publication: The new era
```

Sample Input 2:

```
In [ ]: Newspaper; Football results; Sport news
```

Sample Output 2::

```
In [ ]: Newspaper (source - Sport news): Football results
```

Sample Input 3:

```
In [ ]: Article; Why the Sun is hot; Dr James Smith
```

Sample Output 3::

```
In [ ]: Article (author - Dr James Smith): Why the Sun is hot
```

Sample Input 4:

```
In [ ]: Announcement; Will sell a house; 30
```

Sample Output 4::

```
In [ ]: Announcement (days to expire - 30): Will sell a house
```

```
In [ ]: class Publication {

    private String title;

    public Publication(String title) {
        this.title = title;
    }

    public final String getInfo() {
        // write your code here
    }

    public String getType() {
        return "Publication";
    }

    public String getDetails() {
        return "";
    }

}

class Newspaper extends Publication {

    private String source;

    public Newspaper(String title, String source) {
        super(title);
        this.source = source;
    }

    // write your code here

}

class Article extends Publication {

    private String author;

    public Article(String title, String author) {
        super(title);
        this.author = author;
    }

    // write your code here

}

class Announcement extends Publication {

    private int daysToExpire;

    public Announcement(String title, int daysToExpire) {
        super(title);
        this.daysToExpire = daysToExpire;
    }

    // write your code here
```

```
}
```

Source: [JetBrains Academy](#)