

Code Documentation

Description

The provided Java code defines a simple console application that prints out a welcome message and then displays information about a list of publishers using the `Publisher` class.

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1. Introduction

This program uses a simple loop to iterate over a list of `Publisher` objects and print out their details. The `Publisher` class is not defined in this code snippet, but it likely contains attributes such as name, address, phone number, and ID.

2. Requirements

To run this code, you will need the following libraries:

- Java Development Kit (JDK) version 8 or higher
- The Eclipse IDE or any other Java development environment

3. Usage Instructions

To use this program, follow these steps:

1. Compile the Java source file into an executable JAR file.
2. Run the resulting JAR file using Java.
3. The program will display a welcome message followed by the details of each publisher.

4. Code Comments

The most important part of the code is the line where we define the list of publishers:

``var publishers = List.of(new Publisher(101, "McGraw-Hill", "sales@mcgraw.com", null), new Publisher(102, "Apress", "sales@apress.com", "(123) 456-7890"),...);``. This creates a new ``List`` object containing four instances of the ``Publisher`` class with different IDs, names, email addresses, and phone numbers.

We also see a call to ``System.out.printf("%s\n", welcomeMessage)`` which formats a string using the `printf` method and prints it to the console.

5. Examples

Input/Output Example:

```
```\nWelcome to Cs425 City Library\nPublisher [id=101, name='McGraw-Hill', email='sales@mcgraw.com', phoneNumber=null]\nPublisher [id=102, name='Apress', email='sales@apress.com', phoneNumber=(123) 456-7890]\nPublisher [id=103, name='Penguin-RandomHouse', email=null, phoneNumber=null]\nPublisher [id=104, name='Addison-Wesley', email=null, phoneNumber=null]\n```
```

## 6. Configuration

There are no configuration options for this program.

## 7. Troubleshoot

Common issues may include:

- If there is an error printing the welcome message, check that the Java environment has the correct JDK installed.
- If there are errors when printing the publisher details, ensure that the ``Publisher`` class is correctly implemented and compiled.

## 8. Limitations

This program only works with a fixed set of predefined publishers; it does not allow for user input or dynamic data.

## 9. Conclusions

This program demonstrates a basic example of how to work with a list of objects and perform common operations on them. It showcases the use of Java's built-in ``printf`` function and the ``List`` interface.

## 10. Usage Examples

Practical use cases for this program might include creating similar lists of books, authors, or other entities, and displaying their details in a human-readable format.