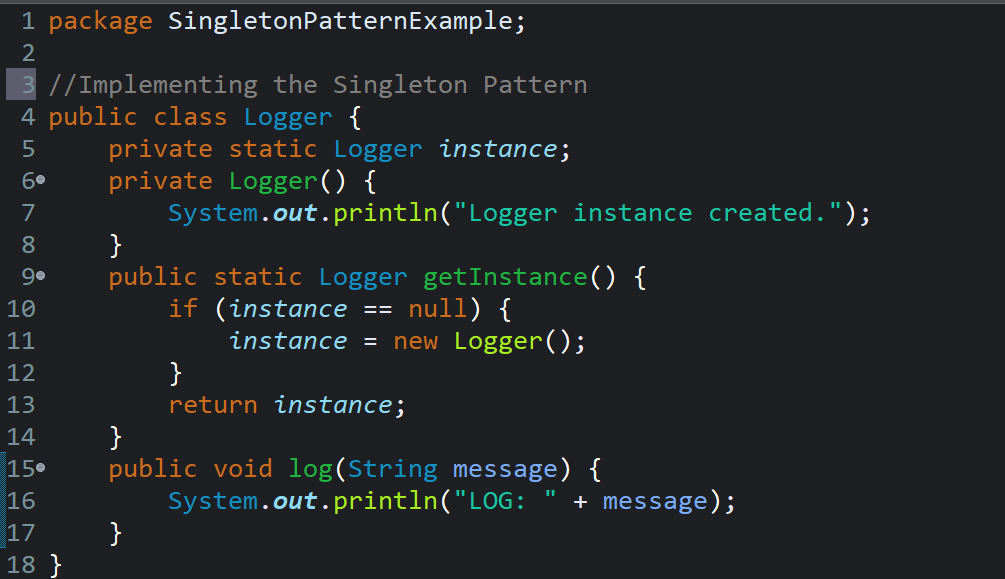
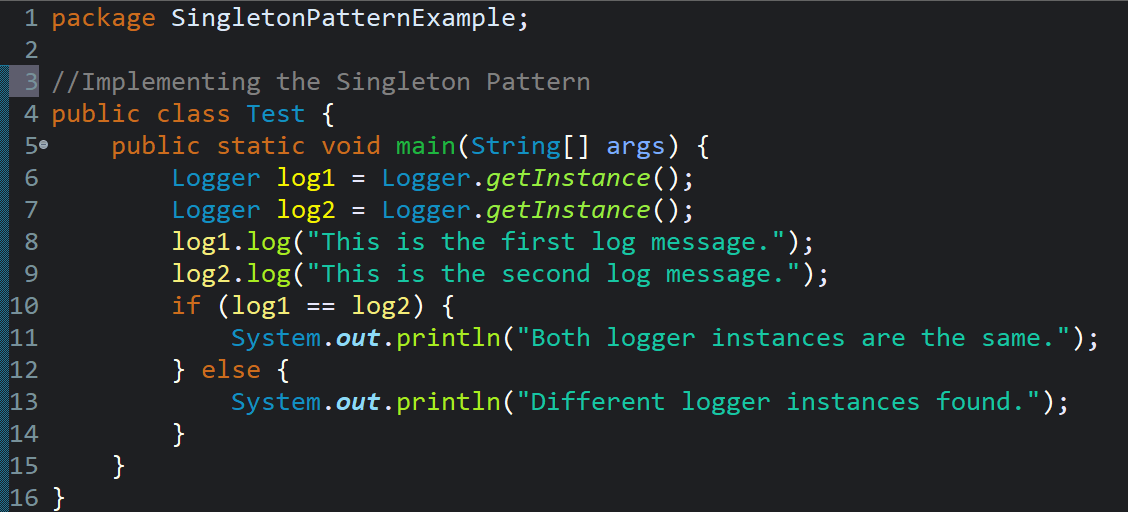
**DESIGN PRINCIPLES & PATTERNS**

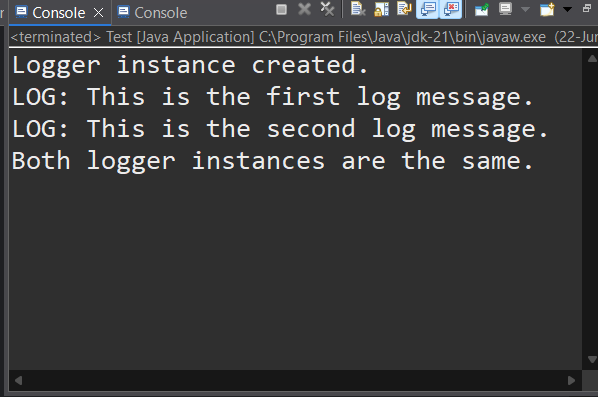
**Exercise 1: Implementing the Singleton Pattern**

**File: Logger.java**



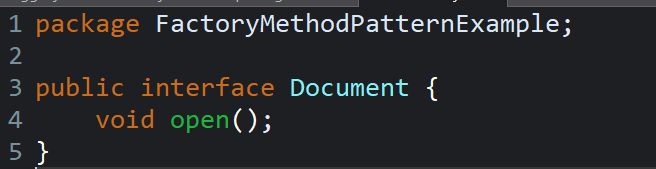
**File: Test.java**

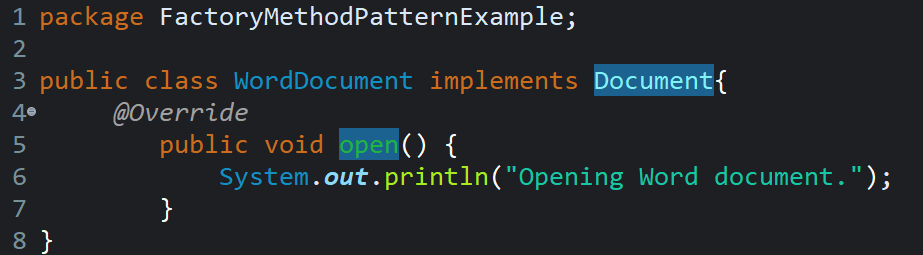
**Output:**

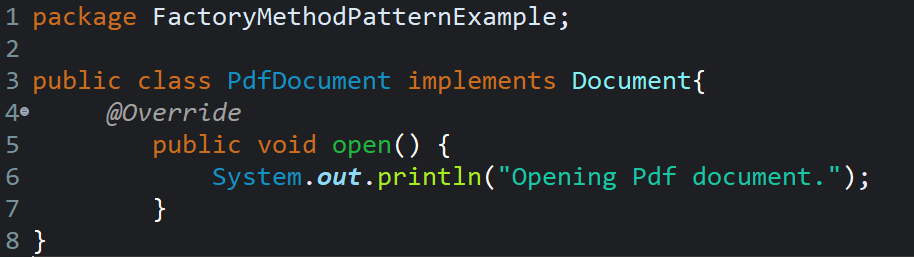


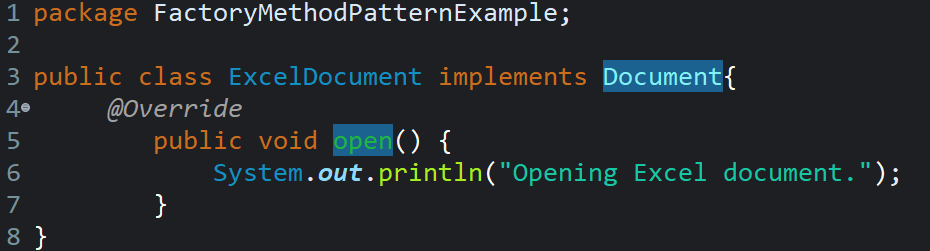
**Exercise 2: Implementing the Factory Method Pattern**

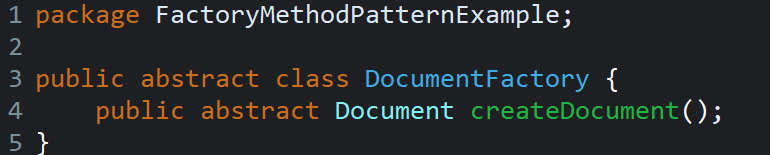
**File: Document.java**

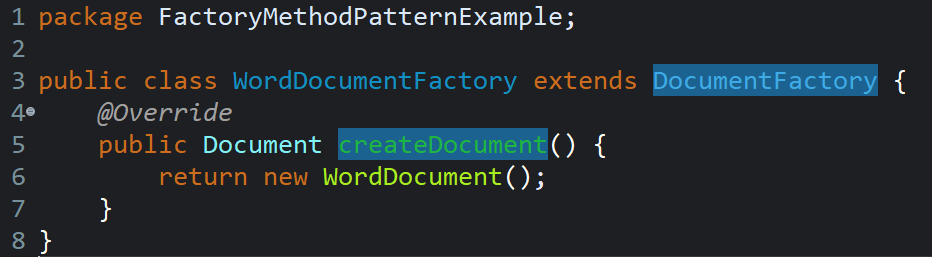


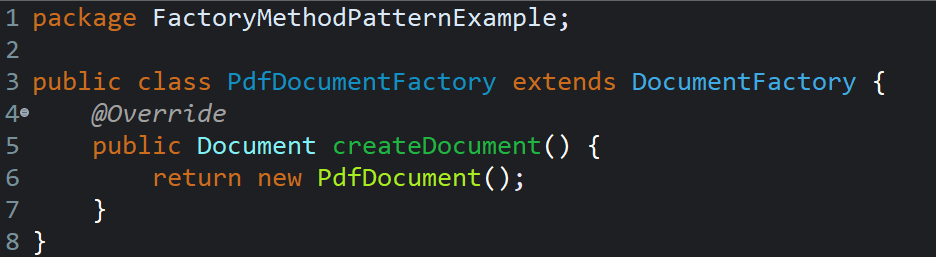
**File: WordDocument.java**

**File: PdfDocument.java**

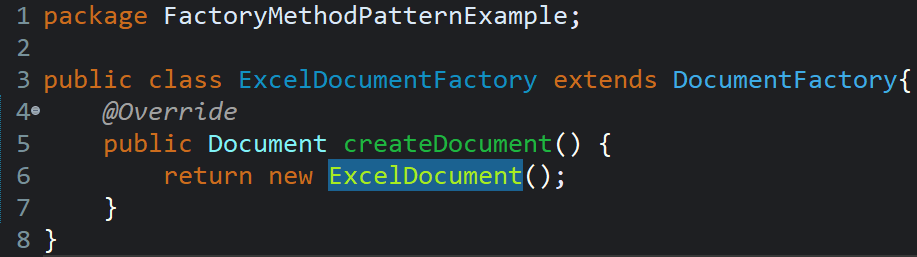
**File: ExcelDocument.java**

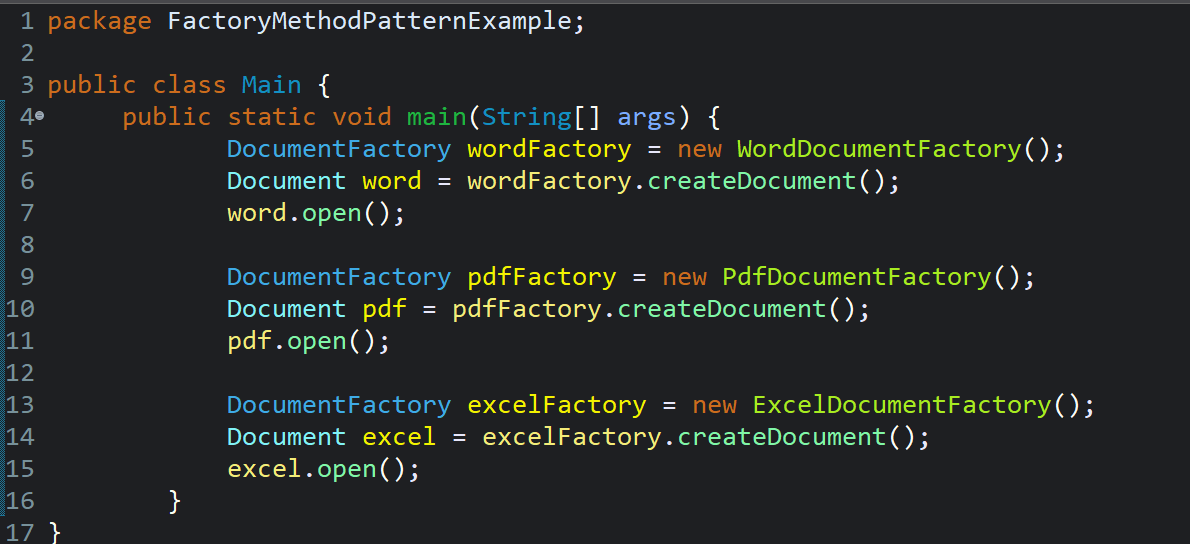
**File: DocumentFactory.java**

**File: WordDocumentFactory.java**

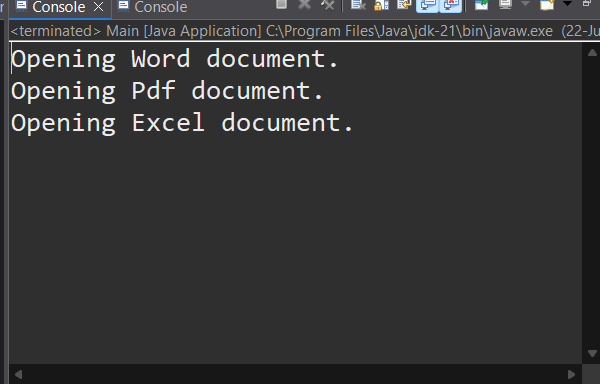
**File: PdfDocumentFactory.java**

**File: ExcelDocumentFactory.java**



**File: Main.java**

**Output:**



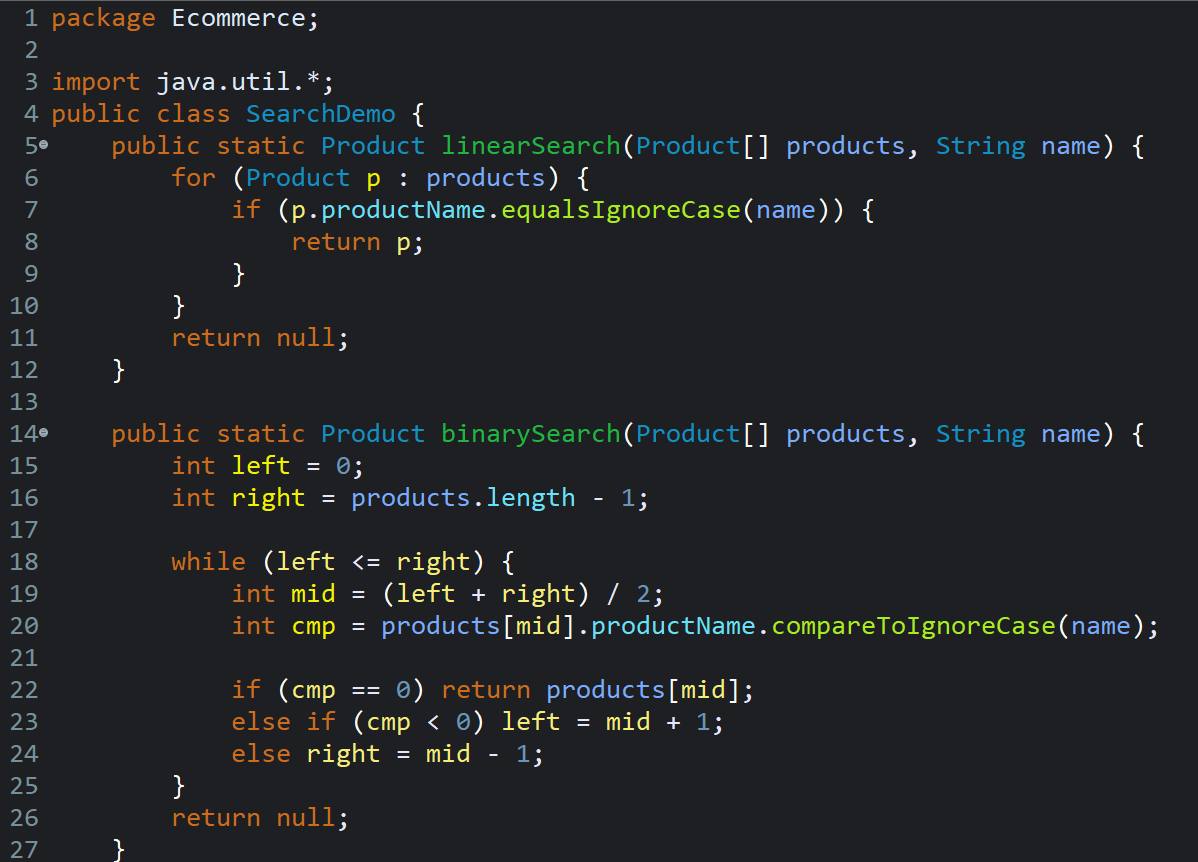
**DATA STRUCTURES AND ALGORITHMS**

**Exercise 2: E-commerce Platform Search Function**

**File: Product.java**

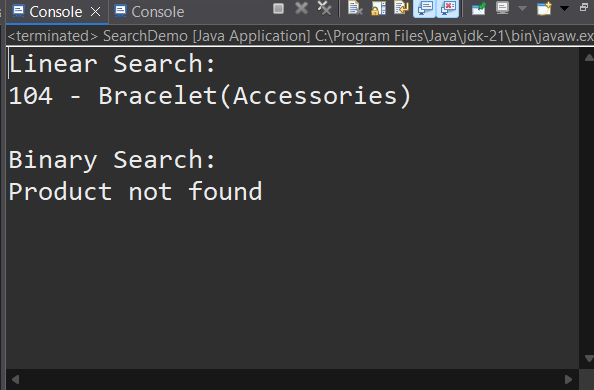


**File: SearchDemo.java**

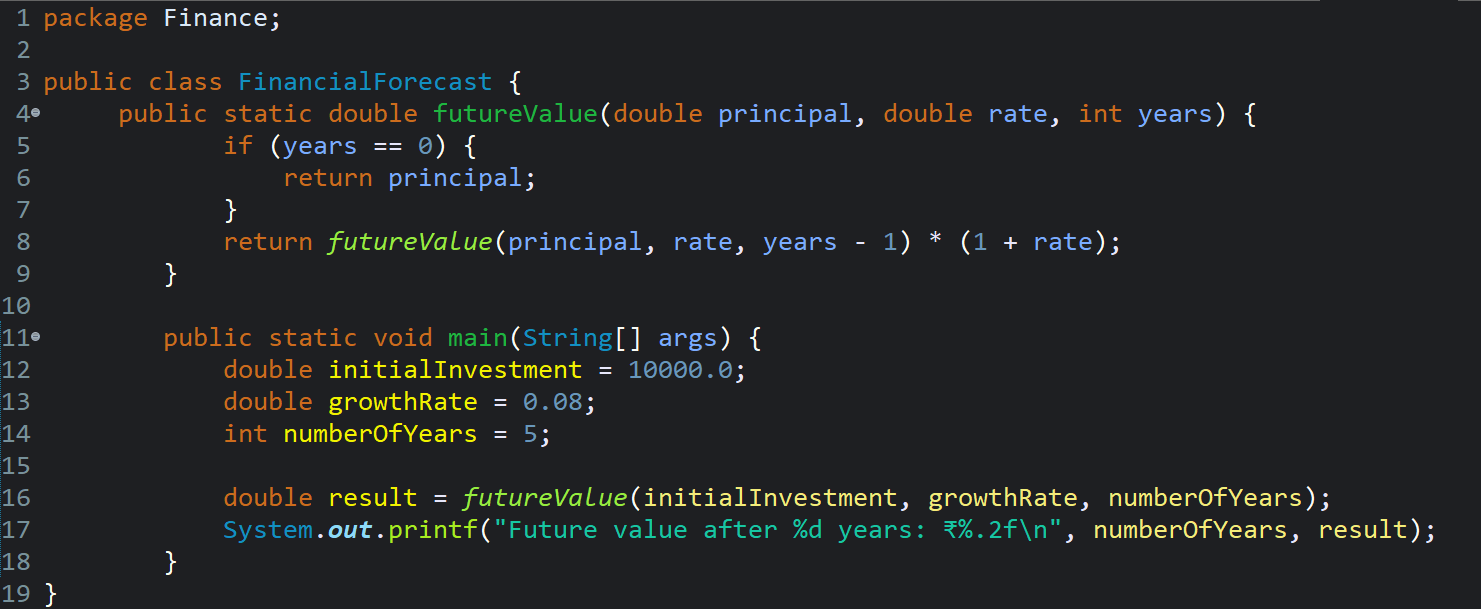




**Output:**

****

**Exercise 7: Financial Forecasting**

**File: FinancialForecast.java**

**Output:**

