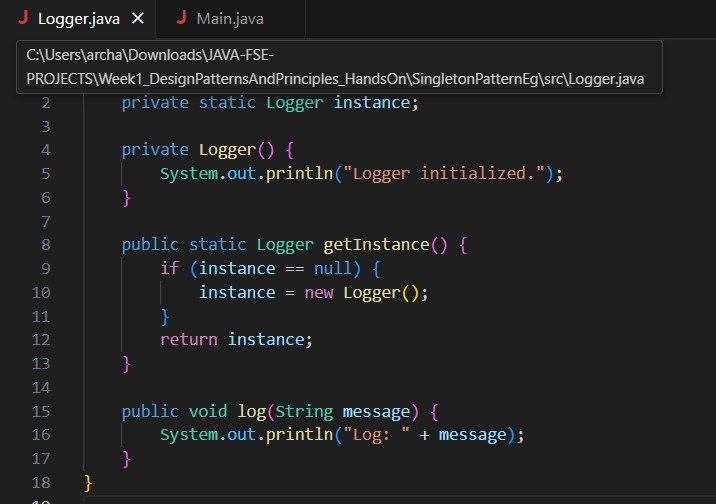
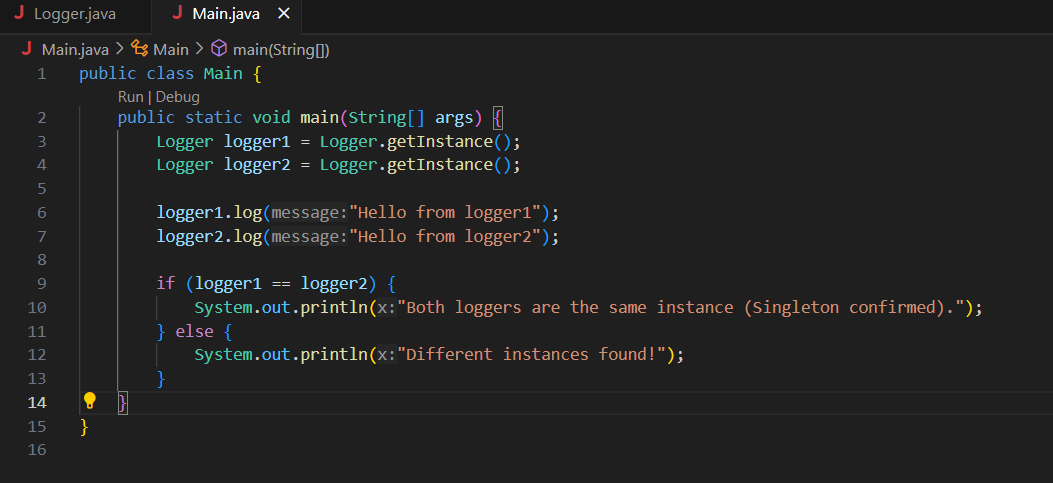
**WEEK -1 ASSIGNMENT (DIGITAL-NURTURE-4.0)**  
NAME: ARCHANA J  
SUPERSET ID: 6396032

**Exercise 1: Implementing the Singleton Pattern**

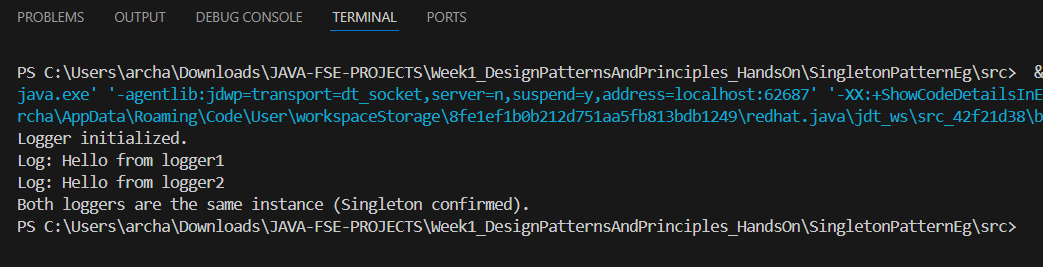
Logger.java



Main.java

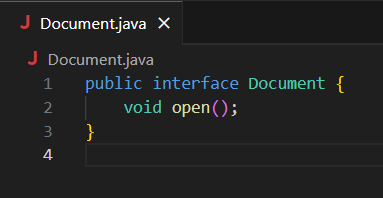


Output:

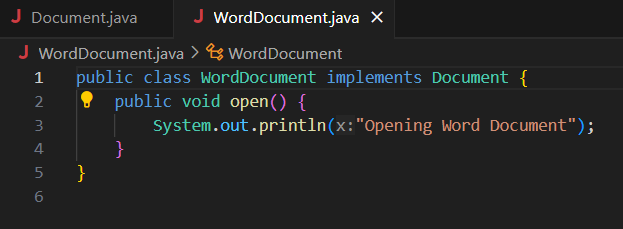


**Exercise 2: Implementing the Factory Method Pattern**

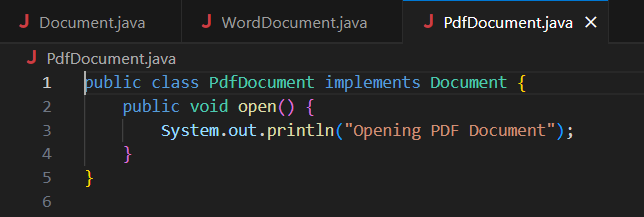
1.Document.java (interface)



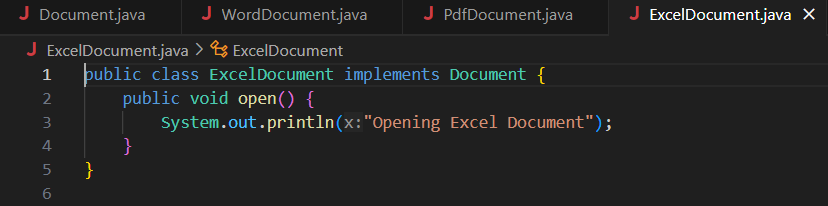
2. WordDocument.java



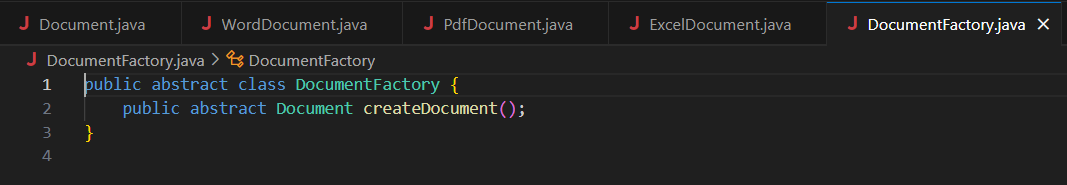
3. PdfDocument.java



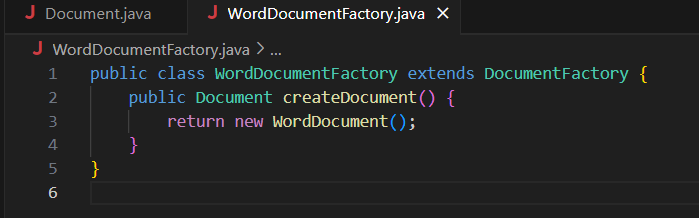
4. ExcelDocument.java



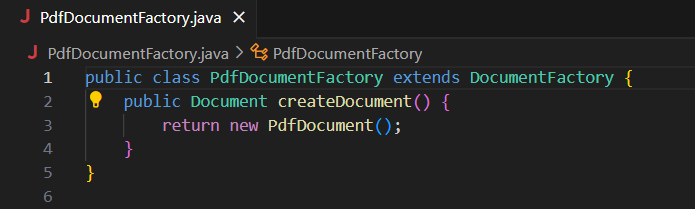
5. DocumentFactory.java (abstract class)



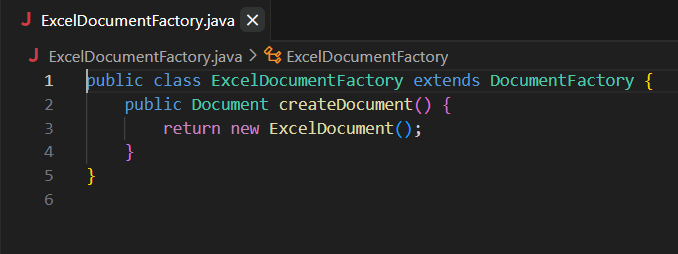
6. WordDocumentFactory.java



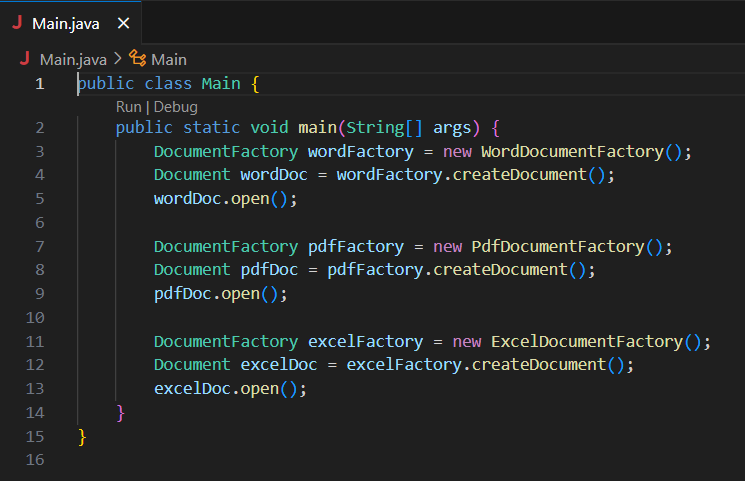
7. PdfDocumentFactory.java



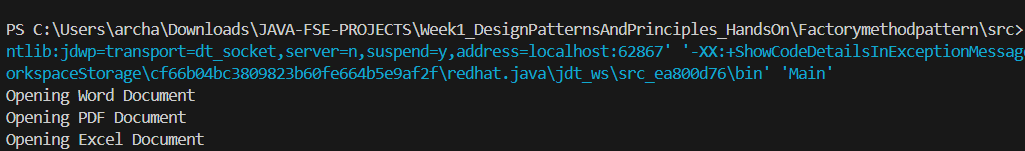
8. ExcelDocumentFactory.java



9. Main.java (Test class)

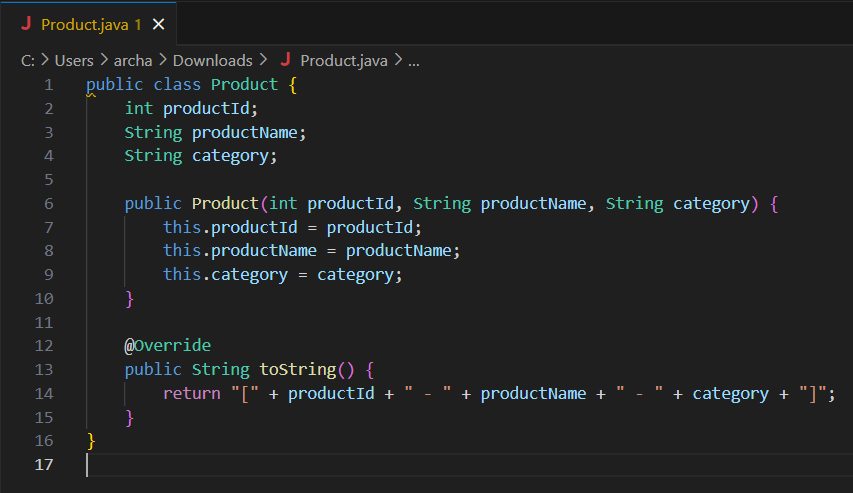


Output:



**Exercise 3: E-commerce Platform Search Function**

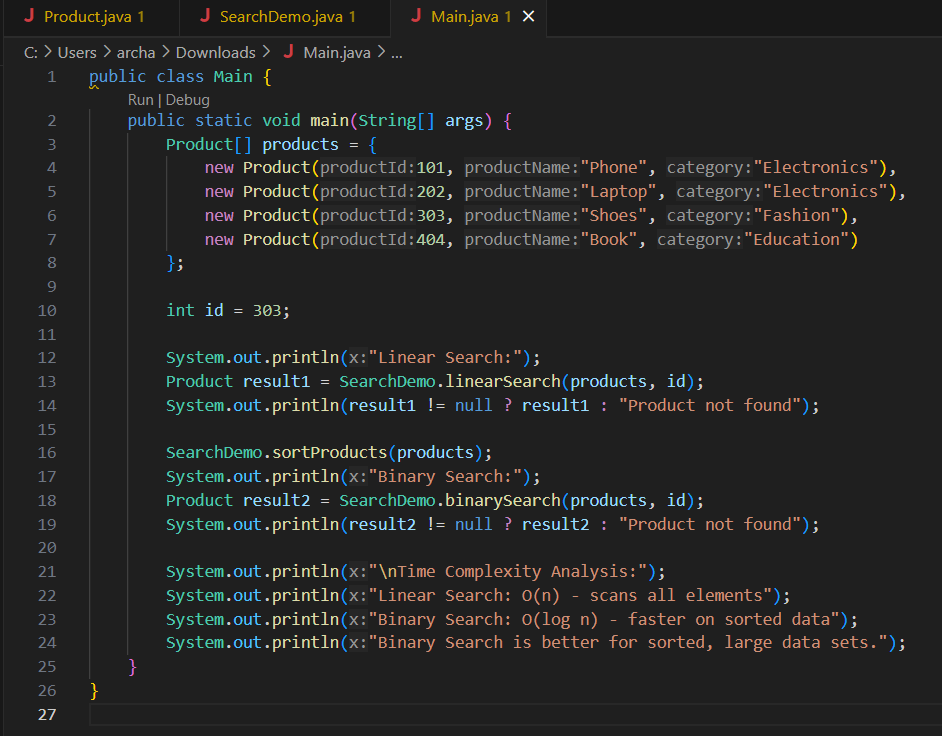
Product.java

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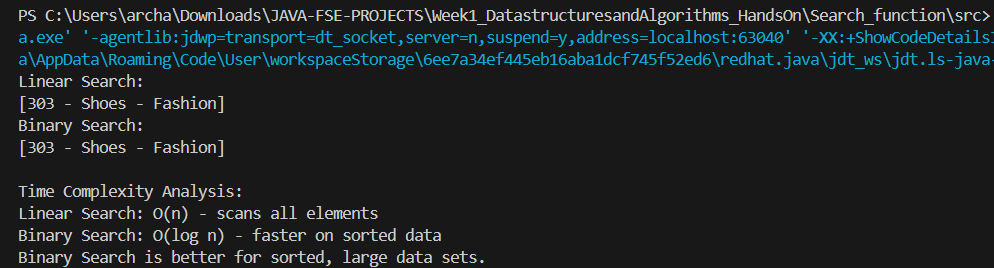
SearchDemo.java



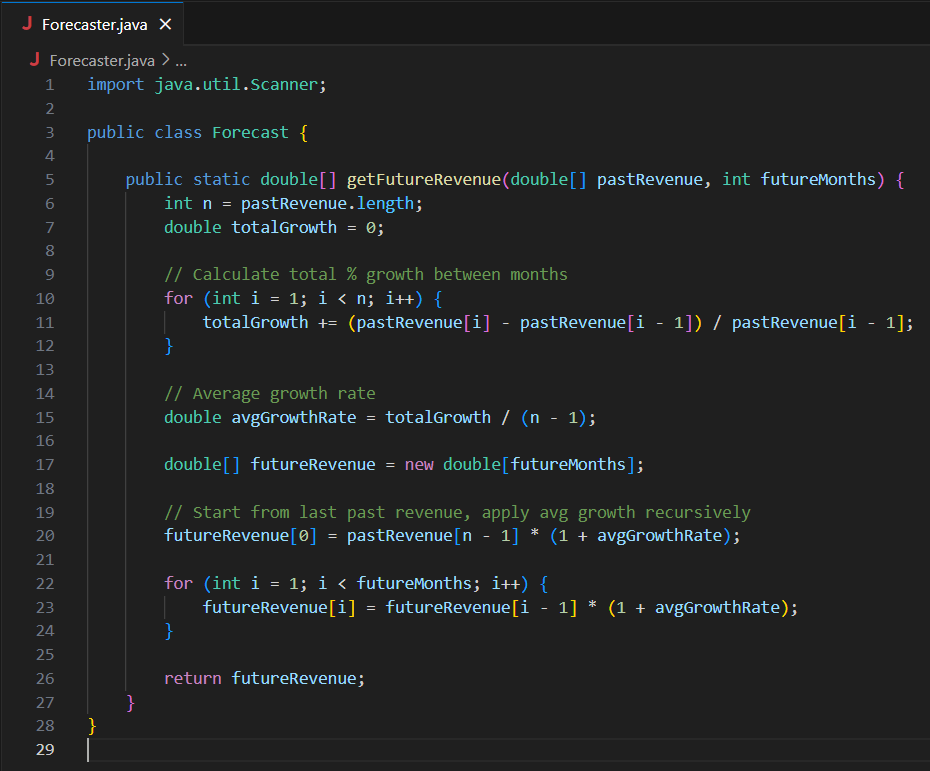
Main.java



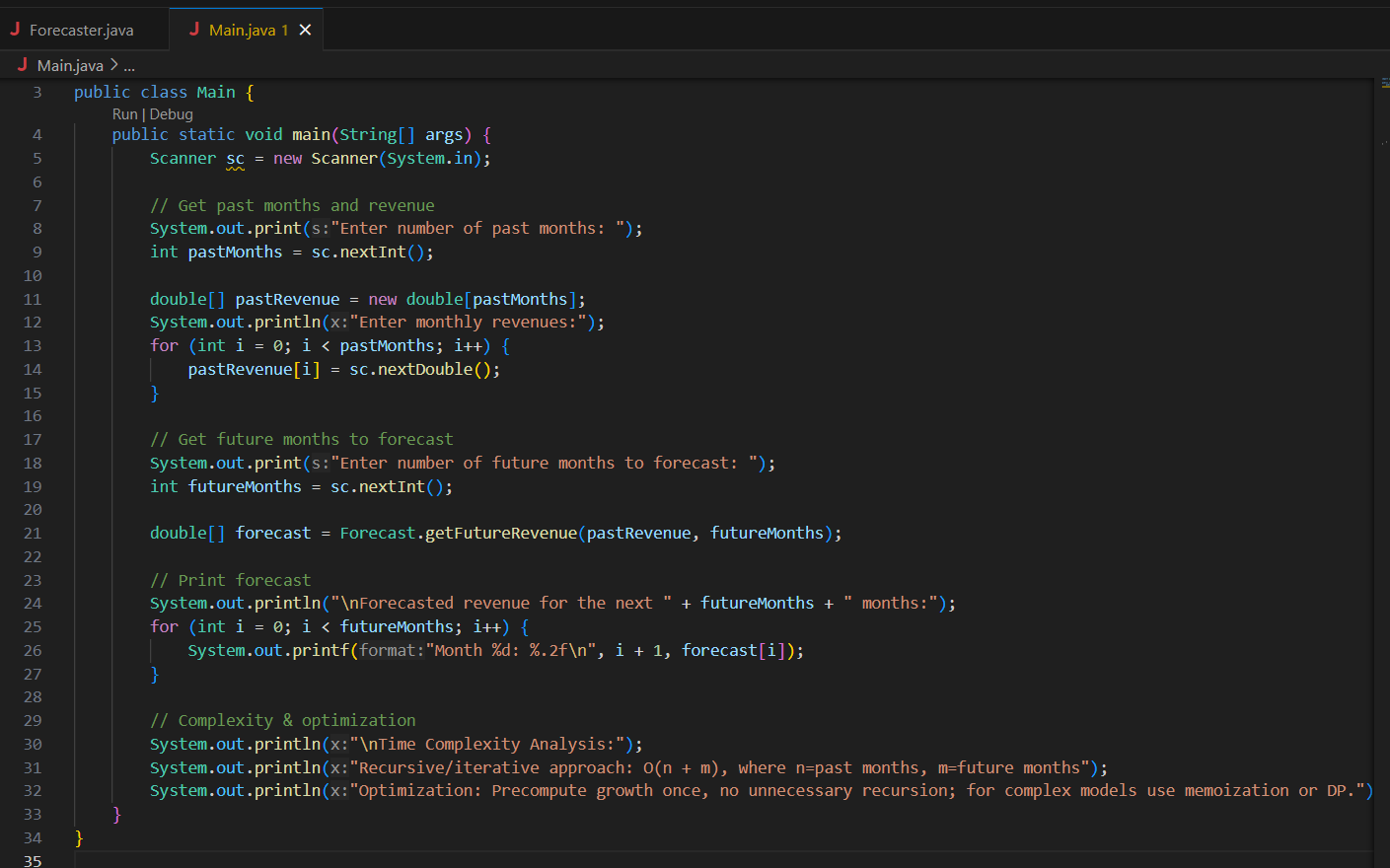
Output:



**Exercise 7: Financial Forecasting**Forecaster.java



Main.java



Output:

