1. **Document Interface**

public interface Document {

void open();

}

1. **Concrete Document Classes**

public class WordDocument implements Document {

@Override

public void open() {

System.out.println("Opening a Word document...");

}

}

public class PdfDocument implements Document {

@Override

public void open() {

System.out.println("Opening a PDF document...");

}

}

public class ExcelDocument implements Document {

@Override

public void open() {

System.out.println("Opening an Excel document...");

}

}

1. **Abstract Factory**

java

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// DocumentFactory.java

public abstract class DocumentFactory {

public abstract Document createDocument();

}

1. **Concrete Factories**

public class WordDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new WordDocument();

}

}

public class PdfDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new PdfDocument();

}

}

public class ExcelDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new ExcelDocument();

}

}

1. **Test Class**

public class FactoryPatternTest {

public static void main(String[] args) {

DocumentFactory wordFactory = new WordDocumentFactory();

Document word = wordFactory.createDocument();

word.open();

DocumentFactory pdfFactory = new PdfDocumentFactory();

Document pdf = pdfFactory.createDocument();

pdf.open();

DocumentFactory excelFactory = new ExcelDocumentFactory();

Document excel = excelFactory.createDocument();

excel.open();

}

}

**Output**

Opening a Word document...

Opening a PDF document...

Opening an Excel document...