**Implementing the Factory Method Pattern**

// Document.java

public interface Document {

void open();

}

// WordDocument.java

public class WordDocument implements Document {

@Override

public void open() {

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

}

}

// PdfDocument.java

public class PdfDocument implements Document {

@Override

public void open() {

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

}

}

// ExcelDocument.java

public class ExcelDocument implements Document {

@Override

public void open() {

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

}

}

// WordDocument.java

public class WordDocument implements Document {

@Override

public void open() {

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

}

}

// PdfDocument.java

public class PdfDocument implements Document {

@Override

public void open() {

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

}

}

// ExcelDocument.java

public class ExcelDocument implements Document {

@Override

public void open() {

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

}

}

// DocumentFactory.java

public abstract class DocumentFactory {

public abstract Document createDocument();

}

// WordDocumentFactory.java

public class WordDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new WordDocument();

}

}

// PdfDocumentFactory.java

public class PdfDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new PdfDocument();

}

}

// ExcelDocumentFactory.java

public class ExcelDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new ExcelDocument();

}

}

// Main.java

public class Main {

public static void main(String[] args) {

DocumentFactory wordFactory = new WordDocumentFactory();

Document wordDoc = wordFactory.createDocument();

wordDoc.open();

DocumentFactory pdfFactory = new PdfDocumentFactory();

Document pdfDoc = pdfFactory.createDocument();

pdfDoc.open();

DocumentFactory excelFactory = new ExcelDocumentFactory();

Document excelDoc = excelFactory.createDocument();

excelDoc.open();

}

}