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

**Program:**

public class FactoryMethodPatternExample{

public static void main(String[] args) {

DocumentFactory wordFactory = new WordFactory();

DocumentFactory pdfFactory = new PDFFactory();

DocumentFactory excelFactory = new ExcelFactory();

Document word = wordFactory.createDocument();

Document pdf = pdfFactory.createDocument();

Document excel = excelFactory.createDocument();

word.open();

pdf.open();

excel.open();

}

}

interface Document {

void open();

}

class WordDocument implements Document {

public void open() {

System.out.println("It is a Word Document.");

}

}

class PDFDocument implements Document {

public void open() {

System.out.println("It is a PDF Document.");

}

}

class ExcelDocument implements Document {

public void open() {

System.out.println("It is an Excel Document.");

}

}

interface DocumentFactory {

Document createDocument();

}

class WordFactory implements DocumentFactory {

public Document createDocument() {

return new WordDocument();

}

}

class PDFFactory implements DocumentFactory {

public Document createDocument() {

return new PDFDocument();

}

}

class ExcelFactory implements DocumentFactory {

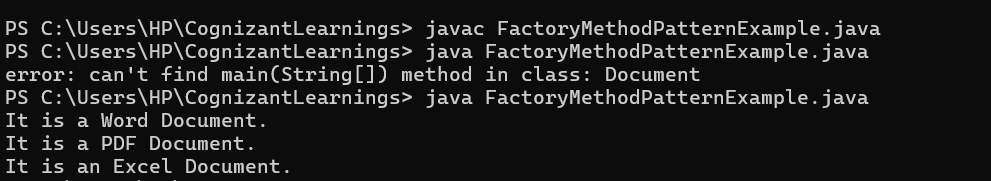
public Document createDocument() {

return new ExcelDocument();

}

}

**Output:**

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