**2. Factory Method Pattern**

public class FactoryMethodPattern {

public static void main(String[] args) {

DocumentFactory wordFactory = new WordDocumentFactory();

Document wordDoc = wordFactory.createDocument();

wordDoc.create();

DocumentFactory pdfFactory = new PdfDocumentFactory();

Document pdfDoc = pdfFactory.createDocument();

pdfDoc.create();

DocumentFactory excelFactory = new ExcelDocumentFactory();

Document excelDoc = excelFactory.createDocument();

excelDoc.create();

}

}

interface Document {

void create();

}

class WordDocument implements Document {

public void create() {

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

}

}

class PdfDocument implements Document {

public void create() {

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

}

}

class ExcelDocument implements Document {

public void create() {

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

}

}

abstract class DocumentFactory {

public abstract Document createDocument();

}

class WordDocumentFactory extends DocumentFactory {

public Document createDocument() {

return new WordDocument();

}

}

class PdfDocumentFactory extends DocumentFactory {

public Document createDocument() {

return new PdfDocument();

}

}

class ExcelDocumentFactory extends DocumentFactory {

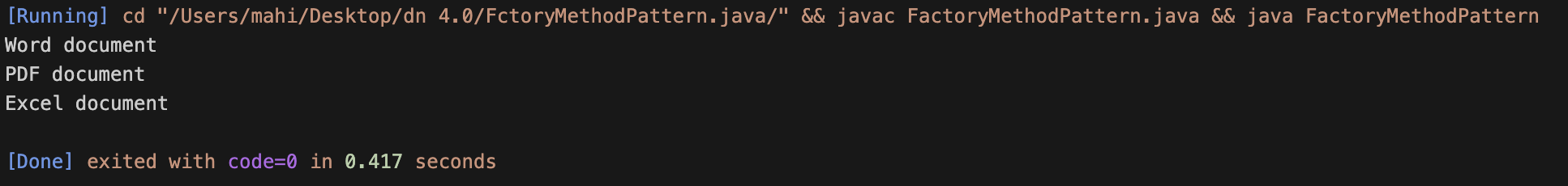
public Document createDocument() {

return new ExcelDocument();

}

}

**Output :**

****