**Implementing the Factory Method Pattern**

**Document.java**

public interface Document {

void open();

}

**WordDocument.java**

public class WordDocument implements Document {

public void open() {

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

}

}

**PdfDocument.java**

public class PdfDocument implements Document {

public void open() {

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

}

}

**ExcelDocument.java**

public class ExcelDocument implements Document {

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 TestFactoryMethod {

public static void main(String[] args) {

DocumentFactory factory;

factory = new WordDocumentFactory();

Document doc1 = factory.createDocument();

doc1.open();

factory = new PdfDocumentFactory();

Document doc2 = factory.createDocument();

doc2.open();

factory = new ExcelDocumentFactory();

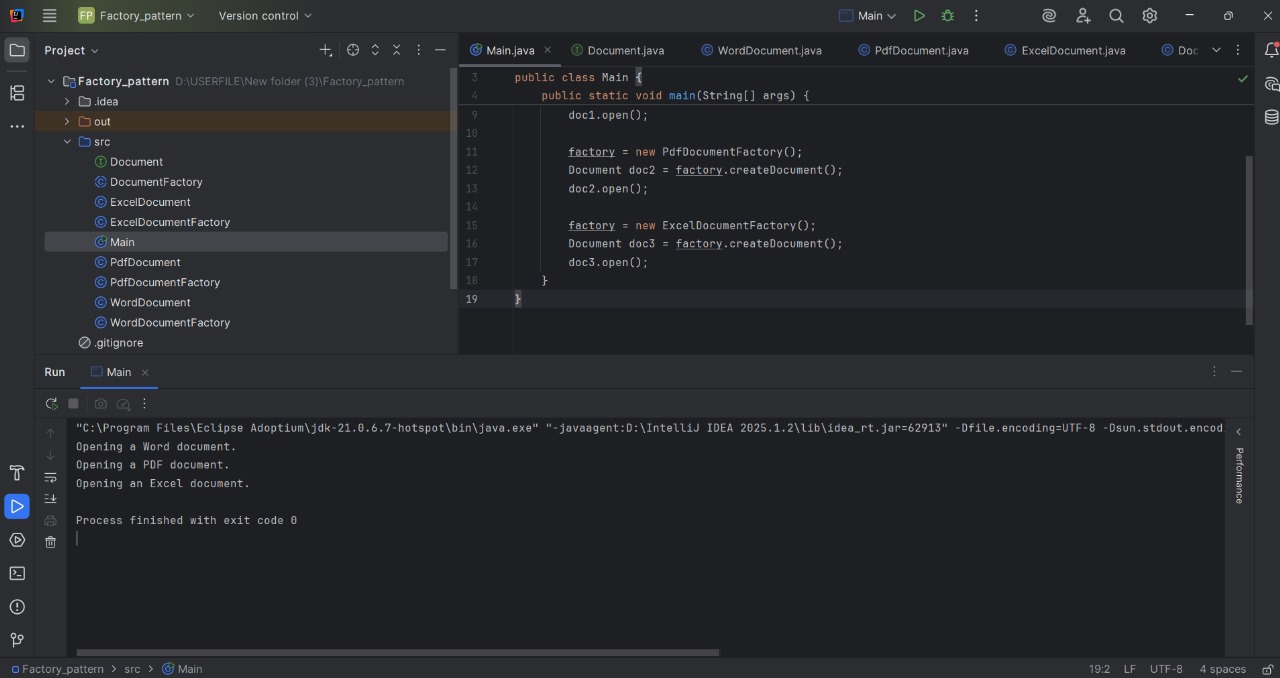
Document doc3 = factory.createDocument();

doc3.open();

}

}

**OUTPUT:**

****