**1.Factory Method Pattern:**

public class FactoryPatternExample{

    public static void main(String[] args) {

        DocumentFactory WordFactory=new WordFactory();

        Document Word=WordFactory.CreateDocument();

        Word.open();

        DocumentFactory PdfFactory=new PdfFactory();

        Document Pdf=PdfFactory.CreateDocument();

        Pdf.open();

        DocumentFactory ExcelFactory=new ExcelFactory();

        Document Excel=ExcelFactory.CreateDocument();

        Excel.open();

    }

}

public interface Document{

    void open();

}

public class WordDocument implements Document{

    @Override

    public void open(){

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

    }

}

public class PdfDocument implements Document{

    @Override

    public void open(){

        System.out.println("Opening Pdf Document");

    }

}

public class ExcelDocument implements Document{

    @Override

    public void open(){

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

    }

}

public abstract class DocumentFactory{

    public abstract Document CreateDocument();

}

public class WordFactory extends DocumentFactory{

    @Override

    public Document CreateDocument(){

        return new WordDocument();

    }

}

public class PdfFactory extends DocumentFactory{

    @Override

    public Document CreateDocument(){

        return new PdfDocument();

    }

}

public class ExcelFactory extends DocumentFactory{

    @Override

    public Document CreateDocument(){

        return new ExcelDocument();

    }

}

**Output:**

****