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

**CODE :**

interface Document{

    void open();

}

class WordDocument implements Document {

    public void open() {

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

    }

}

class PdfDocument implements Document {

    public void open() {

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

    }

}

class ExcelDocument implements Document {

    public void open() {

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

    }

}

abstract class DocumentFactory {

    public abstract Document createDocument();

}

class WordFactory extends DocumentFactory{

    public Document createDocument()

    {

        return new WordDocument();

    }

}

class PdfFactory extends DocumentFactory{

  public Document createDocument()

    {

        return new PdfDocument();

    }

}

class ExcelFactory extends DocumentFactory{

    public Document createDocument()

    {

        return new ExcelDocument();

    }

}

class FactoryMethodPatternExample {

    public static void main(String[] *args*) {

        DocumentFactory WordFactory=new WordFactory();

        Document WordDoc=WordFactory.createDocument();

        WordDoc.open();

        DocumentFactory PdfFactory=new PdfFactory();

        Document PdfDoc=PdfFactory.createDocument();

        PdfDoc.open();

        DocumentFactory ExcelFactory=new ExcelFactory();

        Document ExcelDoc=ExcelFactory.createDocument();

        ExcelDoc.open();

    }

}

