

```
// File: FactoryMethodPatternExample.java
```

```
abstract class Document {  
    public abstract void open();  
}
```

```
// Concrete Document Classes
```

```
class WordDocument extends Document {  
    public void open() {  
        System.out.println("Opening Word document...");  
    }  
}
```

```
class PdfDocument extends Document {  
    public void open() {  
        System.out.println("Opening PDF document...");  
    }  
}
```

```
class ExcelDocument extends Document {  
    public void open() {  
        System.out.println("Opening Excel document...");  
    }  
}
```

```
// Factory Abstract Class
```

```
abstract class DocumentFactory {  
    public abstract Document createDocument();  
}
```

```
// Concrete Factories
```

```
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();  
    }  
}
```

// Test Class

```
public class Main {  
    public static void main(String[] args) {  
        DocumentFactory wordFactory = new WordDocumentFactory();  
        Document wordDoc = wordFactory.createDocument();  
        wordDoc.open();  
  
        DocumentFactory pdfFactory = new PdfDocumentFactory();  
        Document pdfDoc = pdfFactory.createDocument();  
        pdfDoc.open();  
  
        DocumentFactory excelFactory = new ExcelDocumentFactory();  
        Document excelDoc = excelFactory.createDocument();  
        excelDoc.open();  
    }  
}
```

