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

**Document.java**

interface Document {  
 void open();  
}

**WordDocument.java**

class WordDocument implements Document {  
 @Override  
 public void open() {  
 System.*out*.println("Word document has been opened ");  
 }  
}

**PdfDocument.java**

class PdfDocument implements Document {  
 @Override  
 public void open() {  
 System.*out*.println("PDF document has been opened ");  
 }  
}

**ExcelDocument.java**

class ExcelDocument implements Document {  
 @Override  
 public void open() {  
 System.*out*.println("Excel document has been opened");  
 }  
}

**DocumentFactory.java**

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

**WordDocumentFactory.java**

class WordDocumentFactory extends DocumentFactory {  
 @Override  
 public Document createDocument() {  
 return new WordDocument();  
 }  
}

**PdfDocumentFactory.java**

class PdfDocumentFactory extends DocumentFactory {  
 @Override  
 public Document createDocument() {  
 return new PdfDocument();  
 }  
}

**ExcelDocumentFactory.java**

class ExcelDocumentFactory extends DocumentFactory {  
 @Override  
 public Document createDocument() {  
 return new ExcelDocument();  
 }  
}

**FactoryMethodPattern.java**

public class FactoryMethodPattern {  
 public static void main(String[] args) {  
 DocumentFactory wordFactory = new WordDocumentFactory();  
 Document wordDocument = wordFactory.createDocument();  
 wordDocument.open();  
  
 DocumentFactory pdfFactory = new PdfDocumentFactory();  
 Document pdfDocument = pdfFactory.createDocument();  
 pdfDocument.open();  
  
 DocumentFactory excelFactory = new ExcelDocumentFactory();  
 Document excelDocument = excelFactory.createDocument();  
 excelDocument.open();  
 }  
}

OUTPUT SCREENSHOT:

