Exercise 2: Implementing the Factory Method Pattern

package FactoryMethodPattern;  
  
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();  
 }  
}  
  
public class FactoryMethodPattern {  
 public static void main(String[] args) {  
 DocumentFactory factory;  
  
 factory = new WordFactory();  
 Document wordDoc = factory.createDocument();  
 wordDoc.open();  
  
 factory = new PdfFactory();  
 Document pdfDoc = factory.createDocument();  
 pdfDoc.open();  
  
 factory = new ExcelFactory();  
 Document excelDoc = factory.createDocument();  
 excelDoc.open();  
 }  
}

Output:

