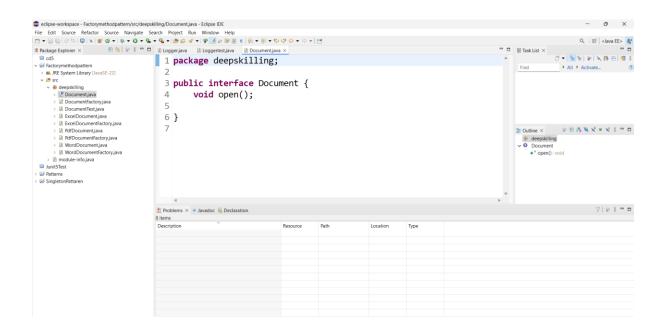
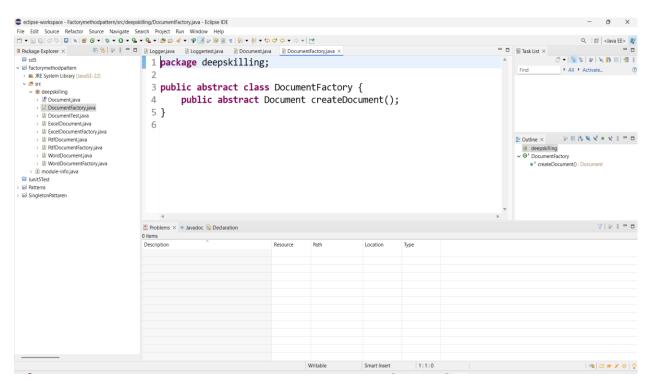
# Factory Method Pattern ---- 1) Document.java: Code package deepskilling; public interface Document { void open();



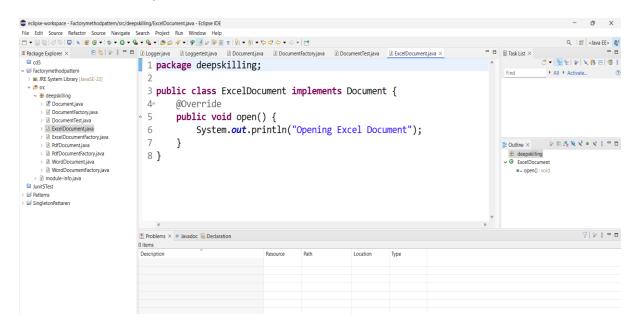
# 2)DocumentFactory.java: code

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



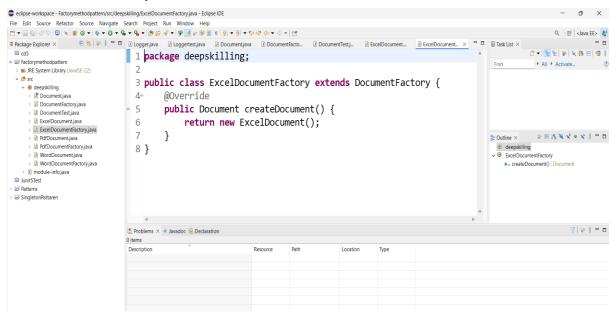
### 3)ExcelDocument.java: Code

```
package deepskilling;
public class ExcelDocument implements Document {
    @Override
    public void open() {
        System.out.println("Opening Excel Document");
    }
}
```



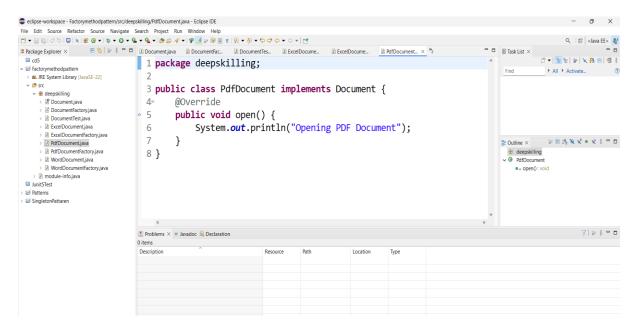
### 4) Excel Document Factory. java: Code

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



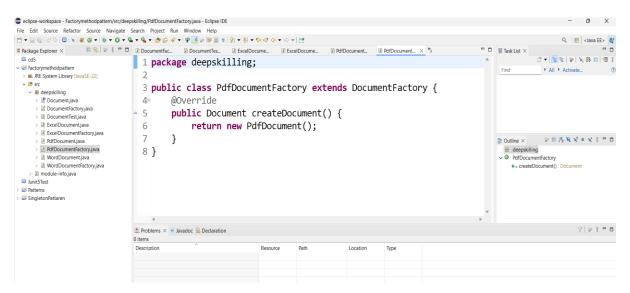
## 5)PdfDocument.java: code

```
package deepskilling;
public class PdfDocument implements Document {
    @Override
    public void open() {
        System.out.println("Opening PDF Document");
    }
}
```



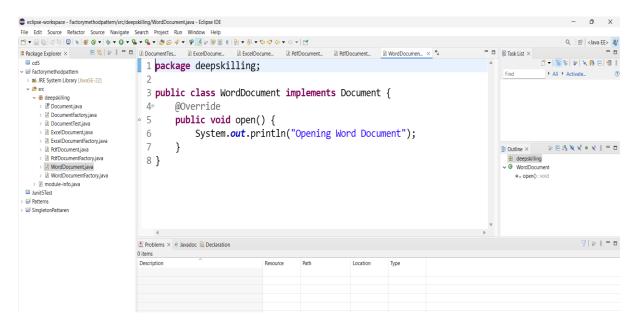
### 6)PdfDocumentFactory.java: Code

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



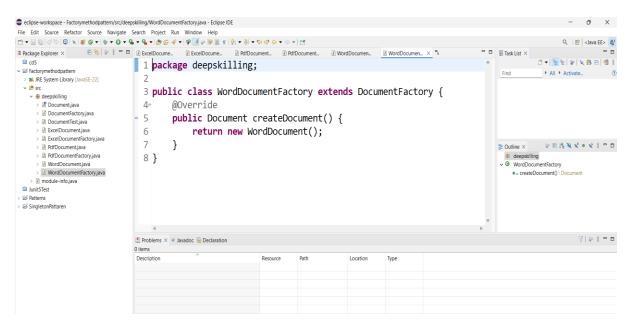
### 7) Word Document. java: Code

```
package deepskilling;
public class WordDocument implements Document {
    @Override
    public void open() {
        System.out.println("Opening Word Document");
    }
}
```



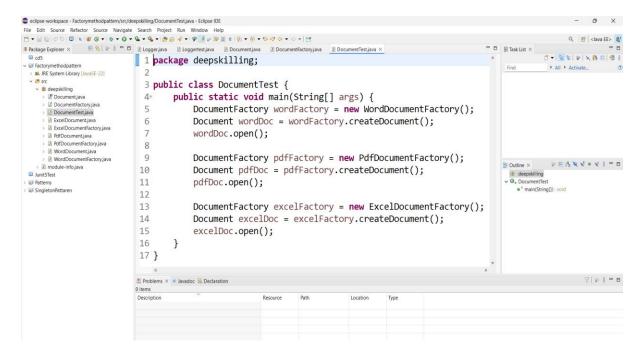
### 8) Word Document Factory. java: Code

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



```
9)DocumentTest.java: Code
package deepskilling;
public class DocumentTest {
  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();
```

### Pic From Eclipse IDE:



### **OUTPUT:**

-----

```
eclipse-workspace - Factorymethodpattern/src/deepskilling/DocumentTest.java - Eclipse IDE
File Edit Source Refactor Source Navigate Search Project Run Window Help

The Additional Control of the Control
                                                                                                                                                                                                                                                                                                                                                                                       Q 🔡 <Java EE> 🌡
                                                                                                                                                                                                                                                                                                                                    □ ■ Task List ×
                                                                                                                                                                                                                                                                                                                                                           ☐ ▼ | TE TE | ▼ | × 1 N E | 1 S B
                                                                                 1 package deepskilling;
                                                                                                                                                                                                                                                                                                                                                                          ► All ► Activate...
     > ■ JRE System Library [JavaSE-22]
                                                                            public static void main(String[] args) {
             > 🗗 Document.java
                                                                                                                 DocumentFactory wordFactory = new WordDocumentFactory();
              > If DocumentFactory.java
              DocumentTest.java
                                                                                                                 Document wordDoc = wordFactory.createDocument();
                                                                                                                                                                                                                                                                                                                                           wordDoc.open();
                                                                                                                                                                                                                                                                                                                                           # deepskilling

O DocumentTest

* main(String[]): void
                                                                                  8
              DocumentFactory pdfFactory = new PdfDocumentFactory();
              9
              10
                                                                                                                  Document pdfDoc = pdfFactory.createDocument();
          > 🗓 module-info.java
                                                                              11
                                                                                                                  pdfDoc.open();
   Junit5Test
                                                                              12

    ➢ Patterns
    ➢ SingletonPattaren

                                                                            ■ X ¾ & 3 9 5 5 2 0 + 10 + 10 1
                                                                             Opening Word Document
                                                                             Opening PDF Document
                                                                             Opening Excel Document
```