**Exercise 2: Implementing the Factory Method Pattern  
  
  
CODE:  
  
Document.java:**  
  
package com.factorymethod.pattern;

public interface Document {

void open();

}  
  
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**WordDocument.java:**

package com.factorymethod.pattern;

public class WordDocument implements Document {

@Override

public void open() {

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

}

}

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**PdfDocument.java:**

package com.factorymethod.pattern;

public class PdfDocument implements Document {

@Override

public void open() {

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

}}

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**ExcelDocument.java:**

package com.factorymethod.pattern;

public class ExcelDocument implements Document {

@Override

public void open() {

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

}

}

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**DocumentFactory.java:**package com.factorymethod.pattern;

public abstract class DocumentFactory {

public abstract Document createDocument();

}

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**WordDocumentFactory.java:**package com.factorymethod.pattern;

public class WordDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new WordDocument();

}

}

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**PdfDocumentFactory.java:**  
package com.factorymethod.pattern;

public class PdfDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new PdfDocument();

}

}

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**ExcelDocumentFactory.java:**

package com.factorymethod.pattern;

public class ExcelDocumentFactory extends DocumentFactory {

@Override

public Document createDocument() {

return new ExcelDocument();

}

}

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**Main.java:**

package com.factorymethod.pattern;

public class Main {

public static void main(String[] args) {

// Word document

DocumentFactory wordFactory = new WordDocumentFactory();

Document word = wordFactory.createDocument();

word.open();

// PDF document

DocumentFactory pdfFactory = new PdfDocumentFactory();

Document pdf = pdfFactory.createDocument();

pdf.open();

// Excel document

DocumentFactory excelFactory = new ExcelDocumentFactory();

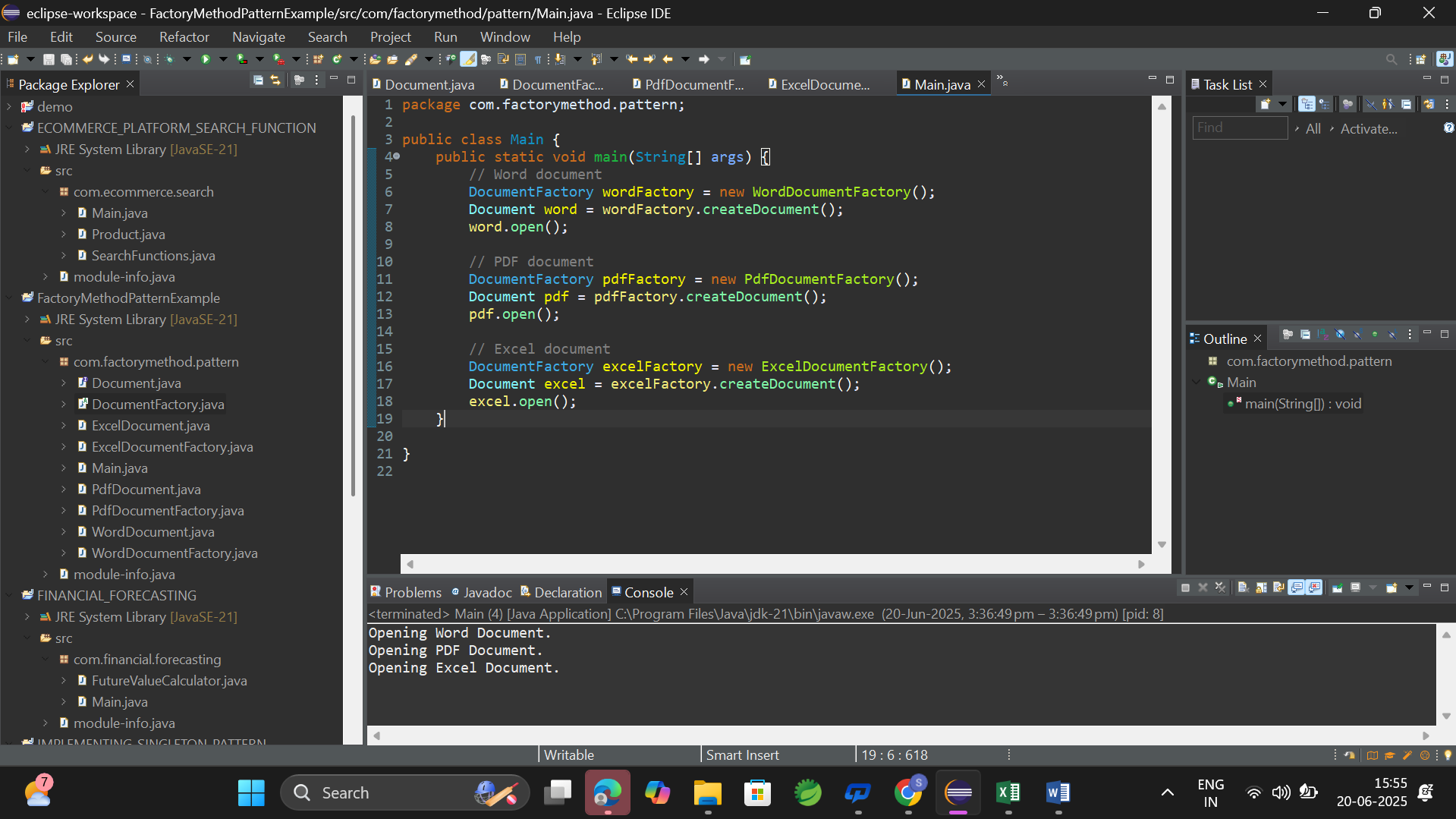
Document excel = excelFactory.createDocument();

excel.open();

}

}

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**OUTPUT:  
**