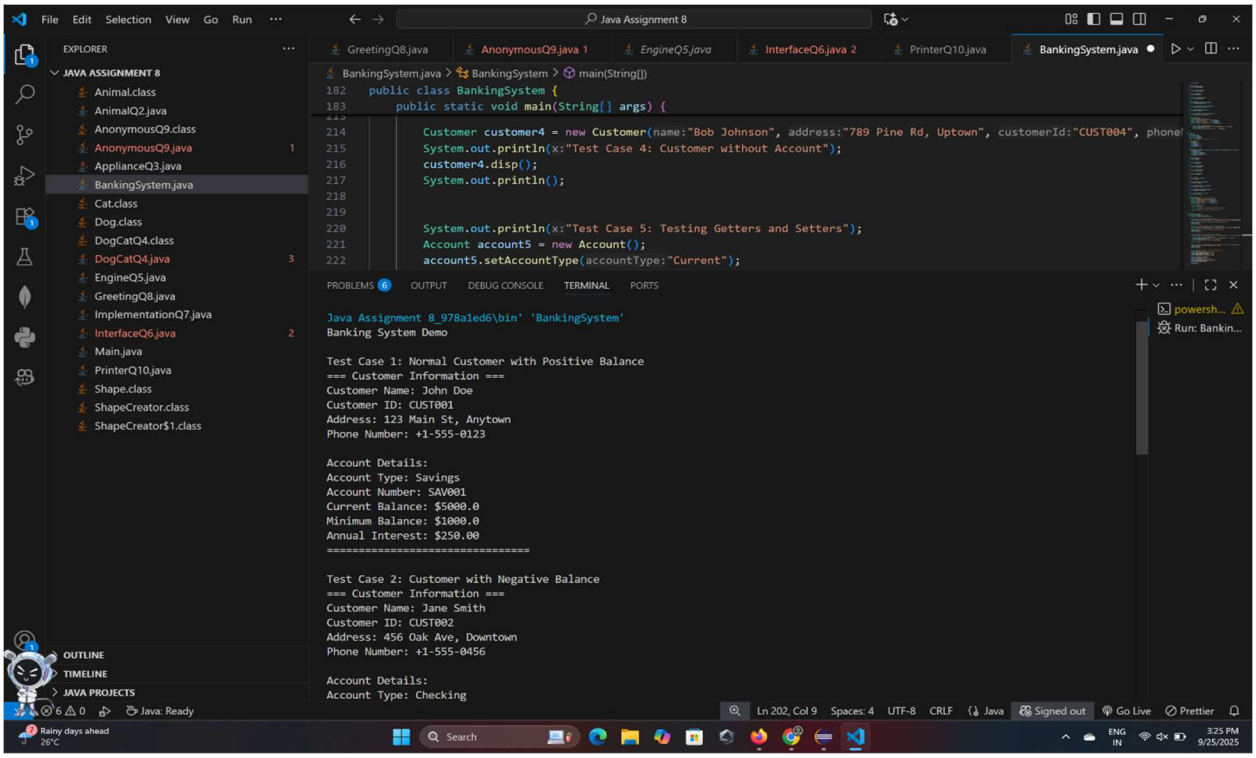
Assignment -11 (24-09-2025)

Roll No - 107

Problem 1: Create Customer class with the relevant information like name, address, id, phone


File Edit Selection View Go Run
Java Assignment 8
EXPLORER
JAVA ASSIGNMENT 8
Animal.class
AnimalQ2.java
AnonymousQ9.class
AnonymousQ9.java 1
ApplianceQ3.java
BankingSystem.java
Cat.class
Dog.class
DogCatQ4.class
DogCatQ4.java 3
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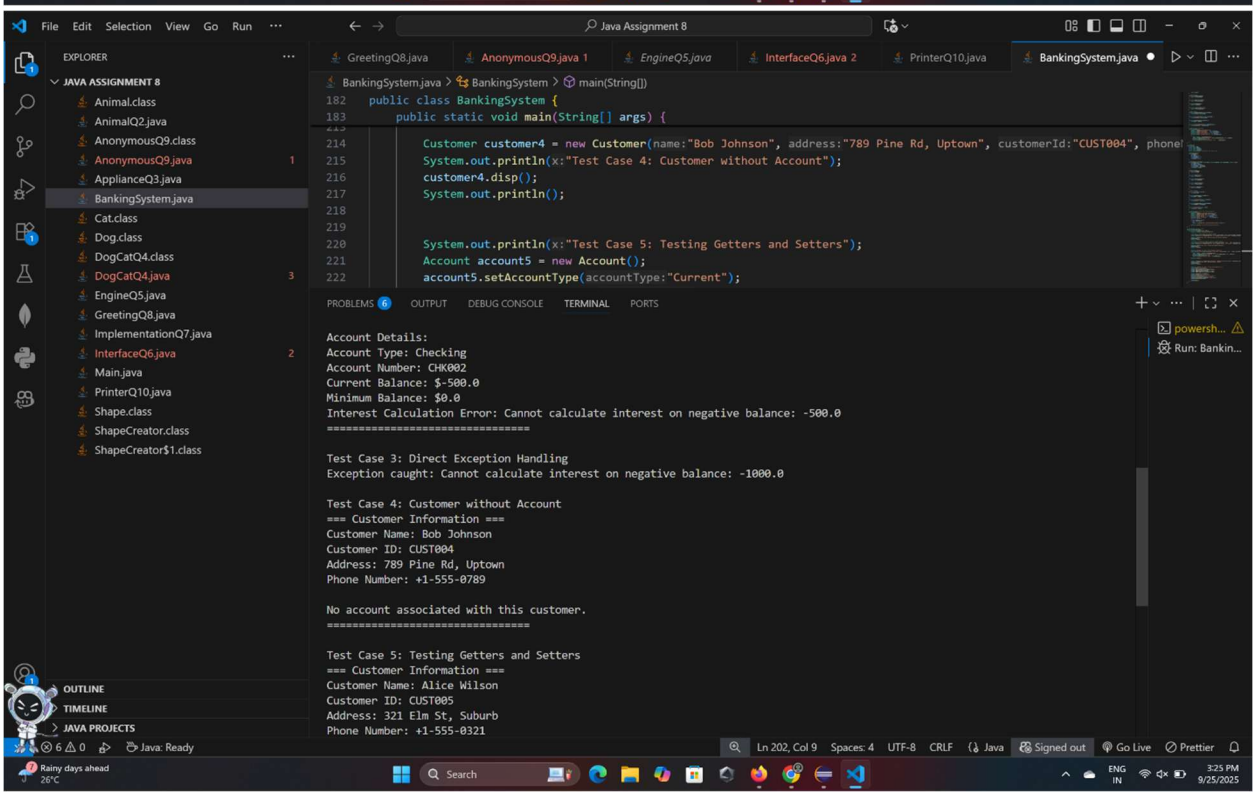
ImplementationQ7.java
InterfaceQ6.java 2
Main.java
PrinterQ10.java
Shape.class
ShapeCreator.class
ShapeCreator$1.class
GreetingQ8.java
AnonymousQ9.java 1
EngineQ5.java
InterfaceQ6.java 2
PrinterQ10.java
BankingSystem.java
BankingSystem.java > BankingSystem > main(String[])
182 public class BankingSystem {
183 public static void main(String[] args) {
214 Customer customer4 = new Customer(name:"Bob Johnson", address:"789 Pine Rd, Uptown", customerId:"CUST004", phone
215 System.out.println(x:"Test Case 4: Customer without Account");
216 customer4.disp();
217 System.out.println();
220 System.out.println(x:"Test Case 5: Testing Getters and Setters");
221 Account account5 = new Account();
222 account5.setAccountType(accountType:"Current");
PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL PORTS
Java Assignment 8_978a1ed6\bin' 'BankingSystem'
Banking System Demo
Test Case 1: Normal Customer with Positive Balance
=== Customer Information ===
Customer Name: John Doe
Customer ID: CUST001
Address: 123 Main St, Anytown
Phone Number: +1-555-0123
Account Details:
Account Type: Savings
Account Number: SAV001
Current Balance: $5000.0
Minimum Balance: $1000.0
Annual Interest: $250.00
==========
Test Case 2: Customer with Negative Balance
=== Customer Information ===
Customer Name: Jane Smith
Customer ID: CUST002
Address: 456 Oak Ave, Downtown
Phone Number: +1-555-0456
Account Details:
Account Type: Checking
powersh...
Run: Bankin...
OUTLINE
TIMELINE
JAVA PROJECTS
Java: Ready
Ln 202, Col 9 Spaces: 4 UTF-8 CRLF Java Signed out Go Live Prettier
Rainy days ahead 26°C
Search
ENG IN 3:25 PM 9/25/2025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220 System.out.println(x:"Test Case 5: Testing Getters and Setters");
221 Account account5 = new Account();
222 account5.setAccountType(accountType:"Current");
PROBLEMS 6 OUTPUT DEBUG CONSOLE TERMINAL PORTS
Account Details:
Account Type: Checking
Account Number: CHK002
Current Balance: $-500.0
Minimum Balance: $0.0
Interest Calculation Error: Cannot calculate interest on negative balance: -500.0
==========
Test Case 3: Direct Exception Handling
Exception caught: Cannot calculate interest on negative balance: -1000.0
Test Case 4: Customer without Account
=== Customer Information ===
Customer Name: Bob Johnson
Customer ID: CUST004
Address: 789 Pine Rd, Uptown
Phone Number: +1-555-0789
No account associated with this customer.
==========
Test Case 5: Testing Getters and Setters
=== Customer Information ===
Customer Name: Alice Wilson
Customer ID: CUST005
Address: 321 Elm St, Suburb
Phone Number: +1-555-0321
powersh...
Run: Bankin...
OUTLINE
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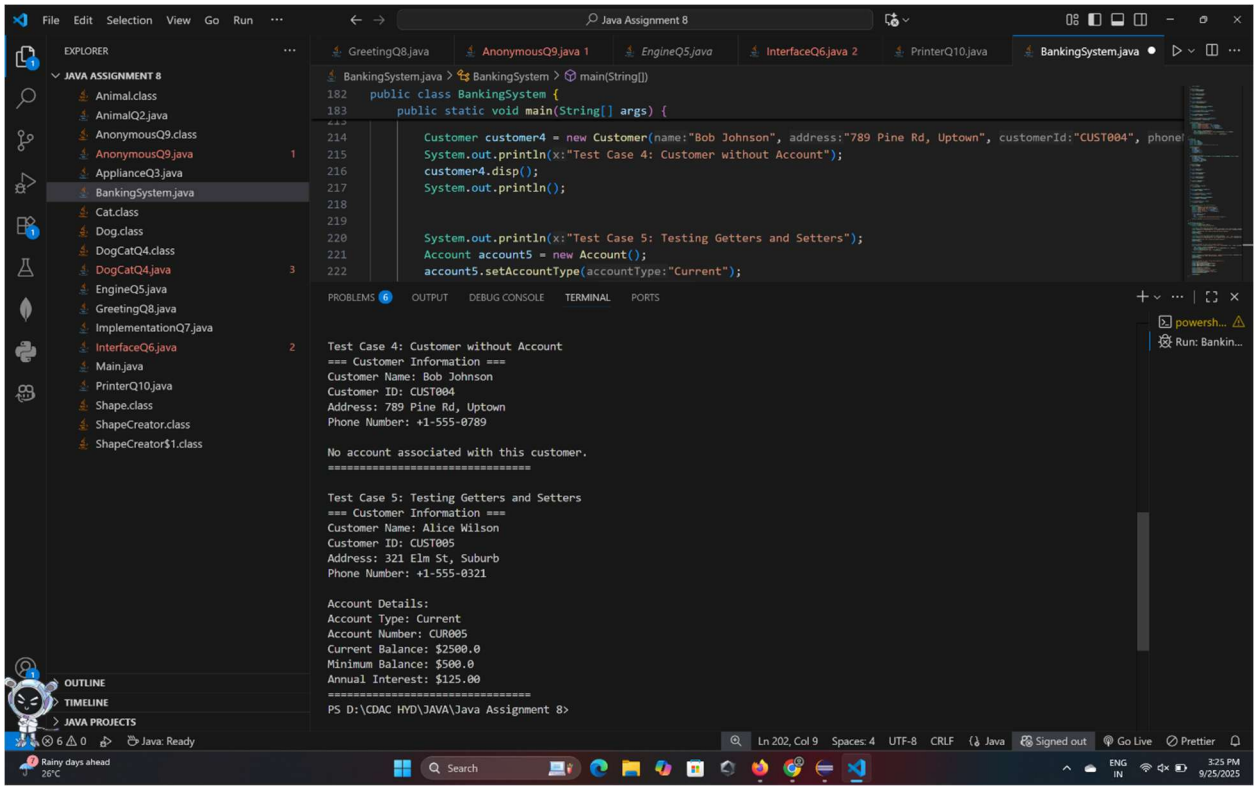
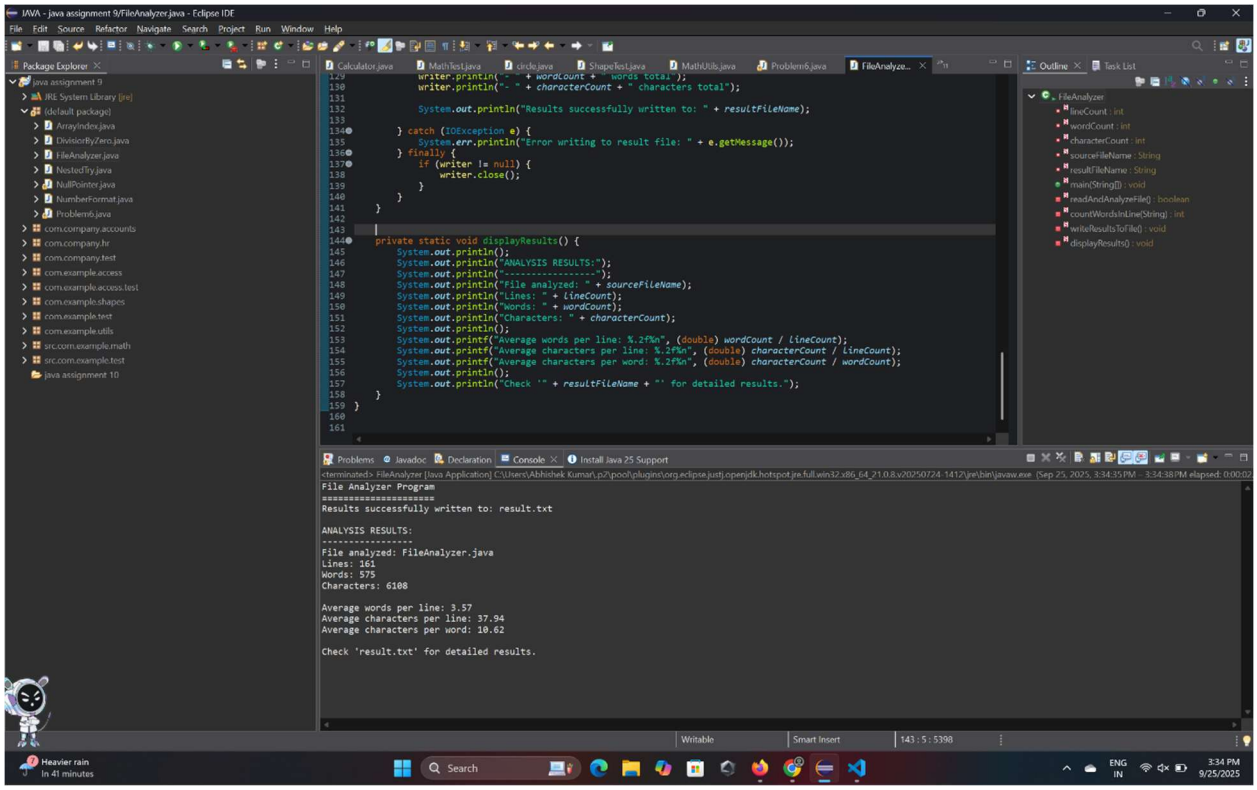
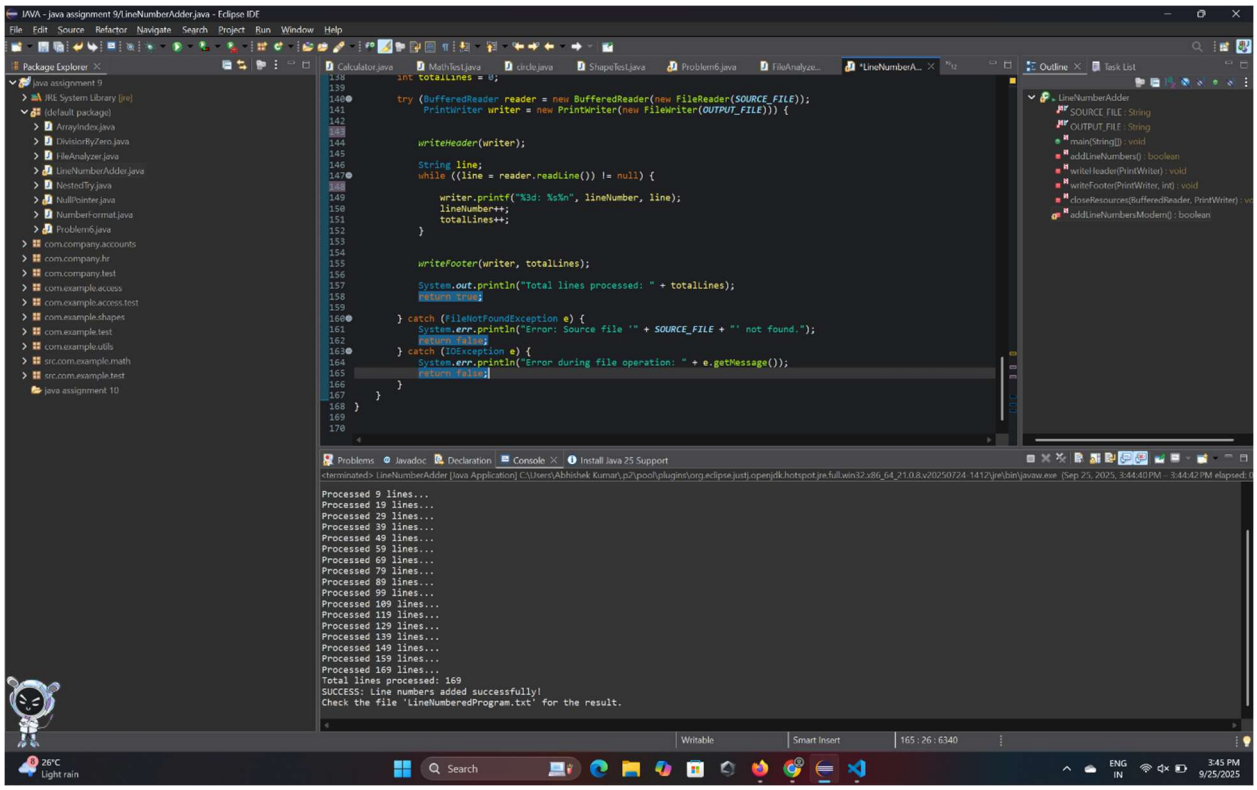


Java IO:

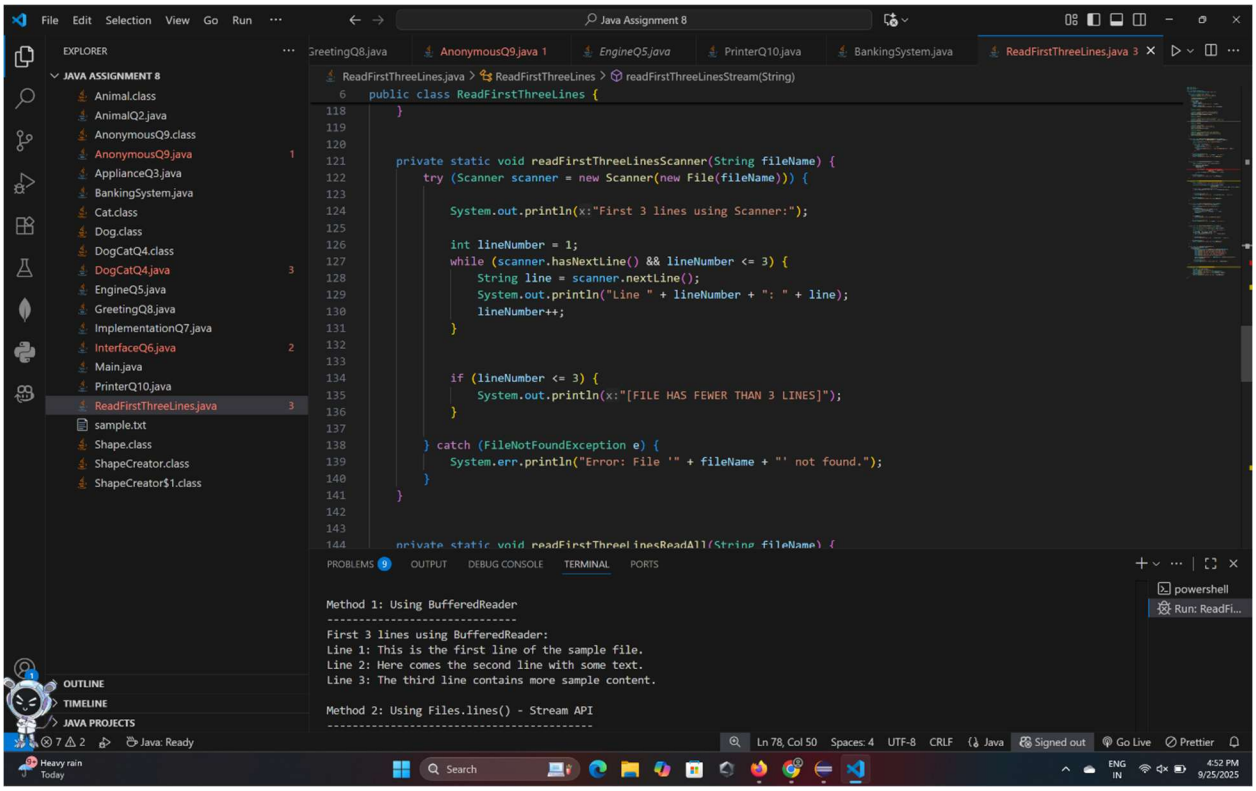
1. Write a Program to read the same program file and find the no. of lines, words and characters. Write the result in in to a text file (result.txt)



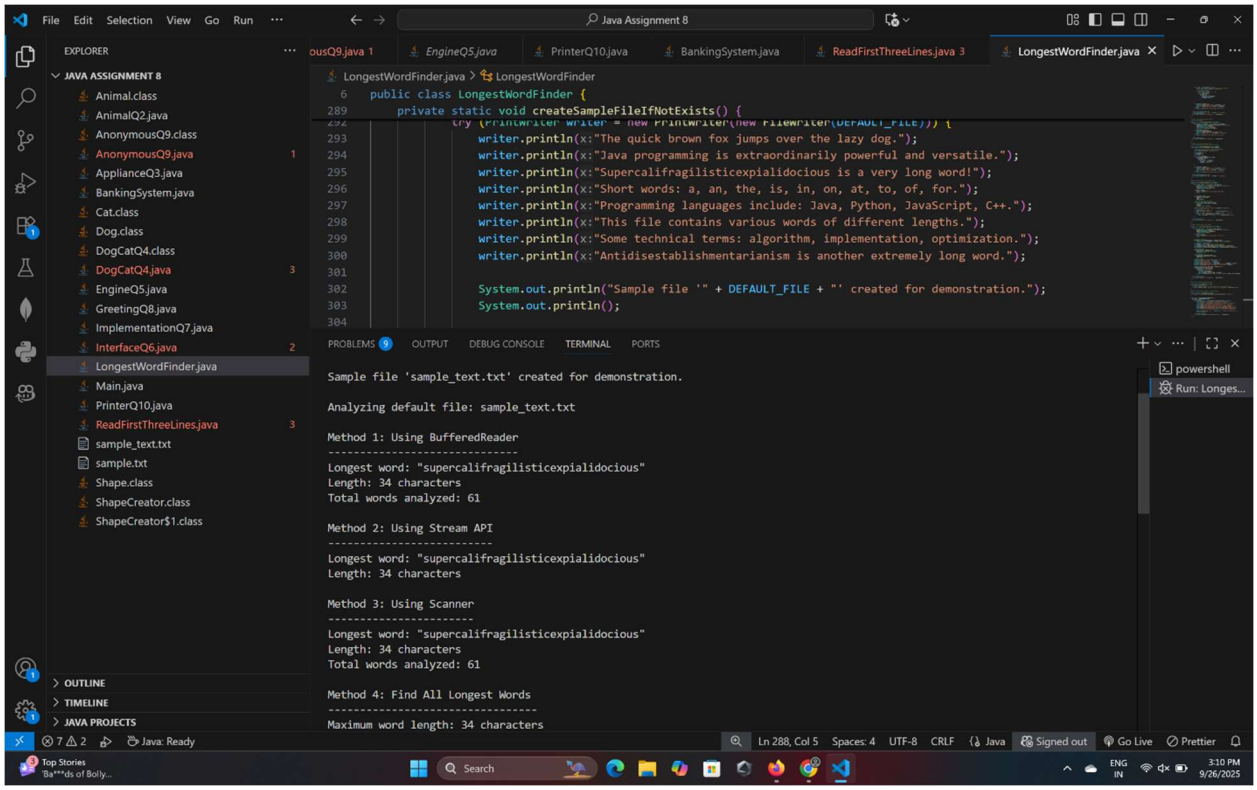
2. Write a program to read the same program file and write it to other file with the lines number added before each line, starting from 1.



3. Write a Java program to read first 3 lines from a file.



4. Write a Java program to find the longest word in a text file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PrinterQ10.java
ReadFirstThreeLines.java 3
sample_text.txt
sample.txt
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ShapeCreator.class
ShapeCreator$1.class
OUTLINE
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JAVA PROJECTS
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BankingSystem.java
ReadFirstThreeLines.java 3
LongestWordFinder.java
LongestWordFinder.java > LongestWordFinder
6 public class LongestWordFinder {
289 private static void createSampleFileIfNotExists() {
293 writer.println("The quick brown fox jumps over the lazy dog.");
294 writer.println("Java programming is extraordinarily powerful and versatile.");
295 writer.println("Supercalifragilisticexpialidocious is a very long word!");
296 writer.println("Short words: a, an, the, is, in, on, at, to, of, for.");
297 writer.println("Programming languages include: Java, Python, JavaScript, C++.");
298 writer.println("This file contains various words of different lengths.");
299 writer.println("Some technical terms: algorithm, implementation, optimization.");
300 writer.println("Antidisestablishmentarianism is another extremely long word.");
302 System.out.println("Sample file '" + DEFAULT_FILE + "' created for demonstration.");
303 System.out.println();
PROBLEMS 9 OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell
Run: Longes...
Sample file 'sample_text.txt' created for demonstration.
Analyzing default file: sample_text.txt
Method 1: Using BufferedReader
Longest word: "supercalifragilisticexpialidocious"
Length: 34 characters
Total words analyzed: 61
Method 2: Using Stream API
Longest word: "supercalifragilisticexpialidocious"
Length: 34 characters
Method 3: Using Scanner
Longest word: "supercalifragilisticexpialidocious"
Length: 34 characters
Total words analyzed: 61
Method 4: Find All Longest Words
Maximum word length: 34 characters
Ln 288, Col 5 Spaces: 4 UTF-8 CRLF Java Signed out Go Live Prettier
Java: Ready
Search
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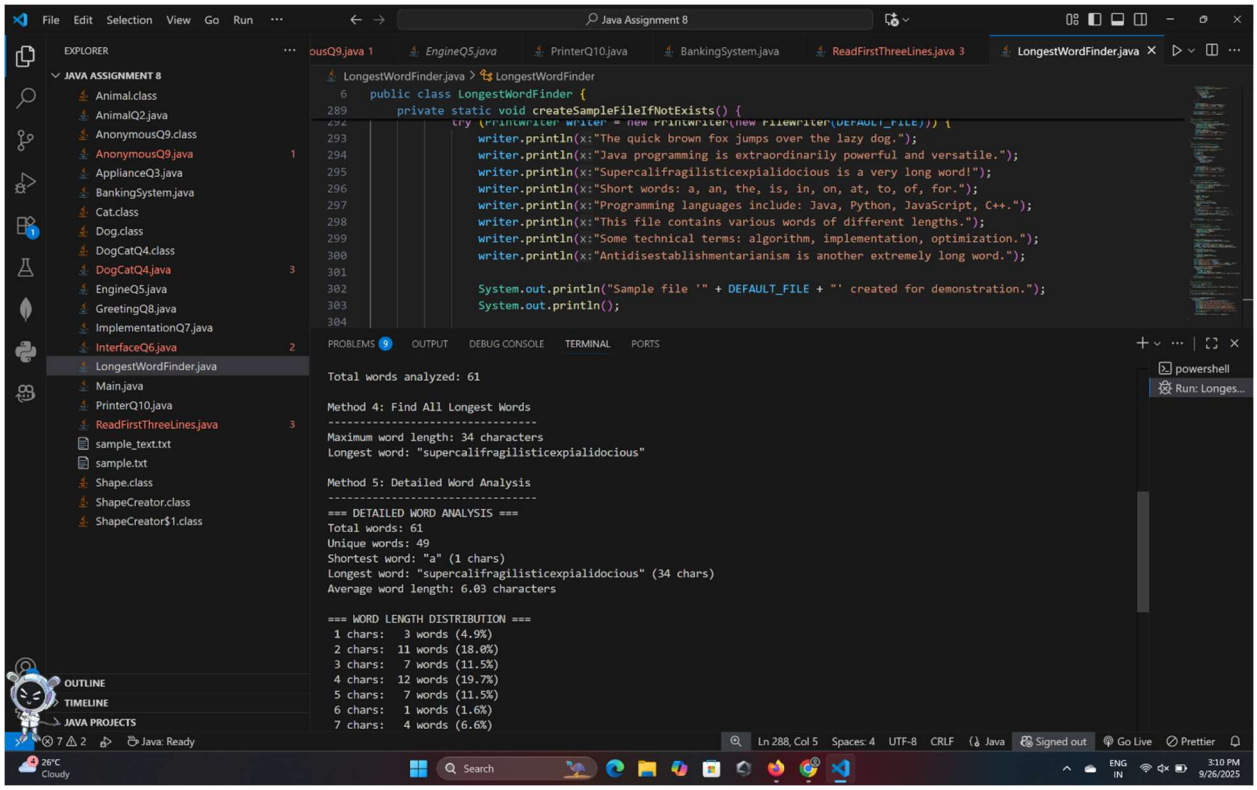
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302 System.out.println("Sample file '" + DEFAULT_FILE + "' created for demonstration.");
303 System.out.println();
PROBLEMS 9 OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell
Run: Longes...
Total words analyzed: 61
Method 4: Find All Longest Words
Maximum word length: 34 characters
Longest word: "supercalifragilisticexpialidocious"
Method 5: Detailed Word Analysis
=== DETAILED WORD ANALYSIS ===
Total words: 61
Unique words: 49
Shortest word: "a" (1 chars)
Longest word: "supercalifragilisticexpialidocious" (34 chars)
Average word length: 6.03 characters
=== WORD LENGTH DISTRIBUTION ===
1 chars: 3 words (4.9%)
2 chars: 11 words (18.0%)
3 chars: 7 words (11.5%)
4 chars: 12 words (19.7%)
5 chars: 7 words (11.5%)
6 chars: 1 words (1.6%)
7 chars: 4 words (6.6%)
Ln 288, Col 5 Spaces: 4 UTF-8 CRLF Java Signed out Go Live Prettier
Java: Ready
26°C Cloudy
Search
ENG IN
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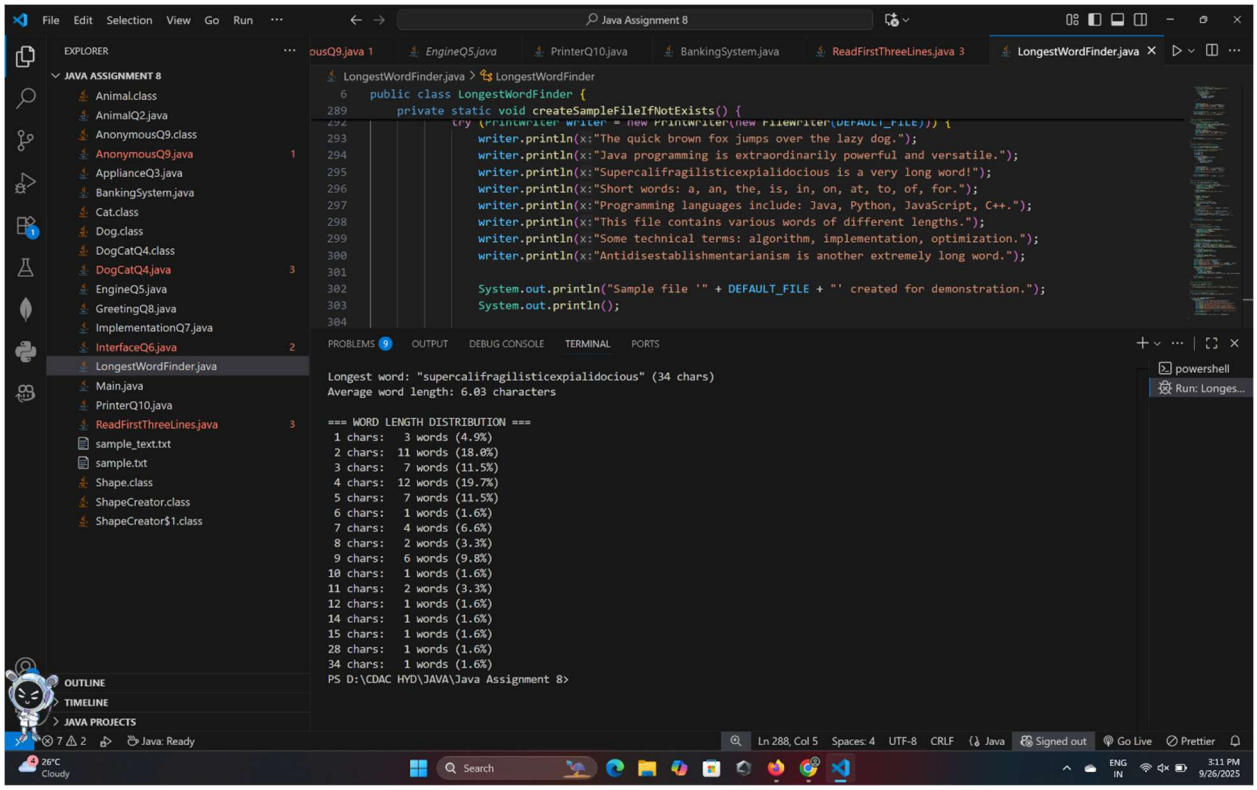


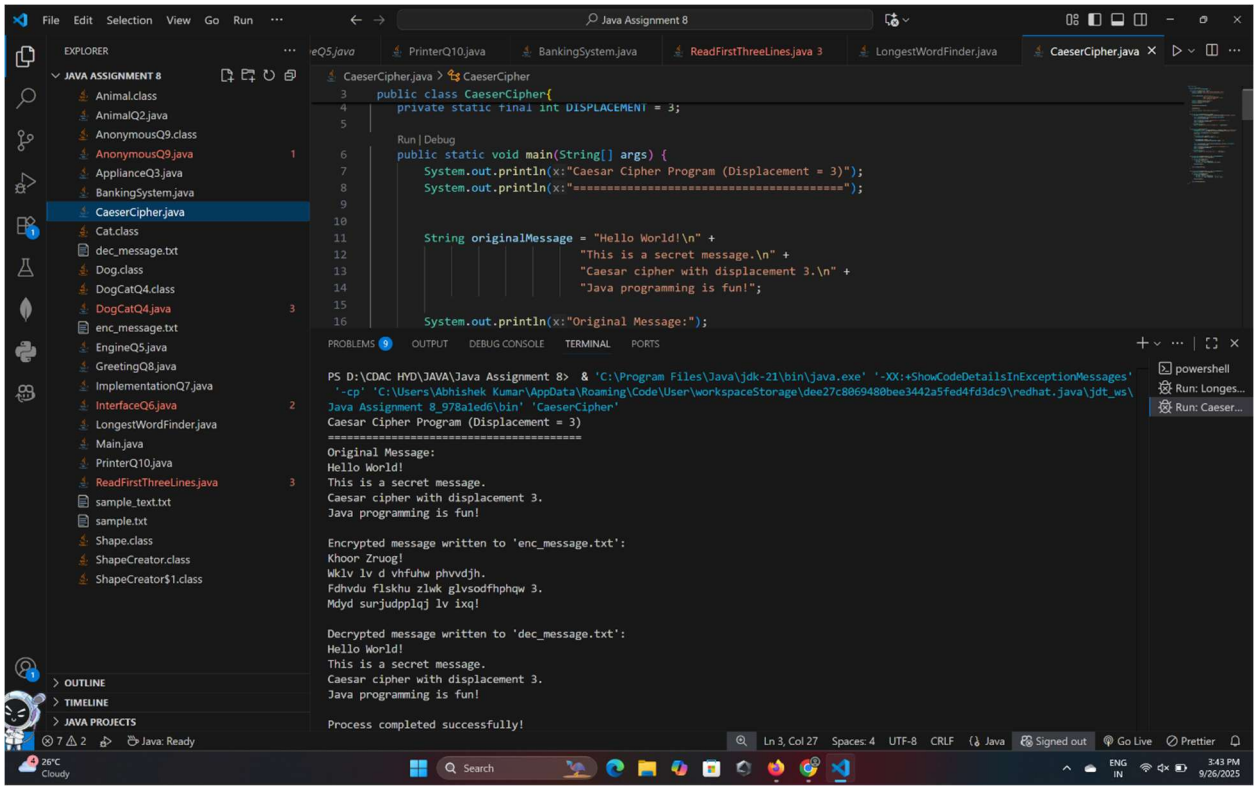
5. Write a programs to implemnt Caeser cipher using files.

Write to the file (enc_mssage.txt) with using caeser cipher with

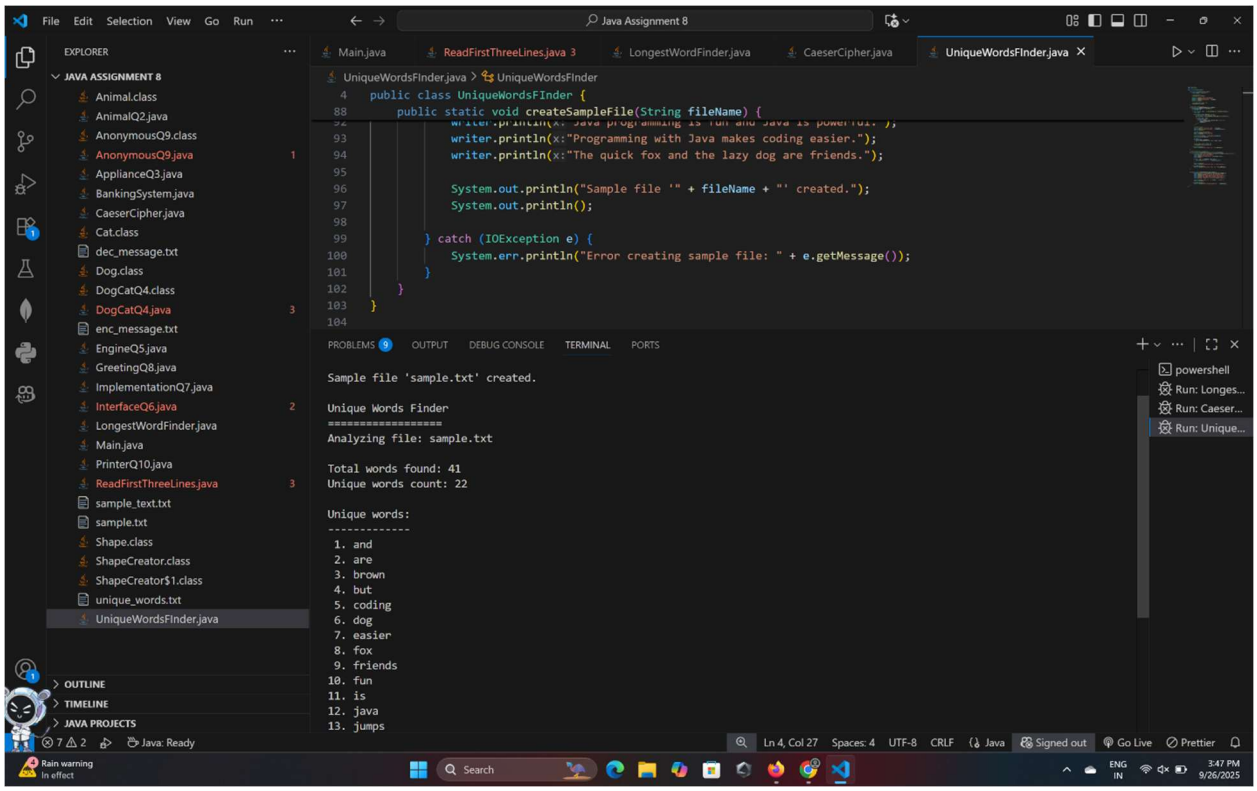
the displacement value = 3.

Read the file (enc_message.txt) and decode the Cipher text and write it into

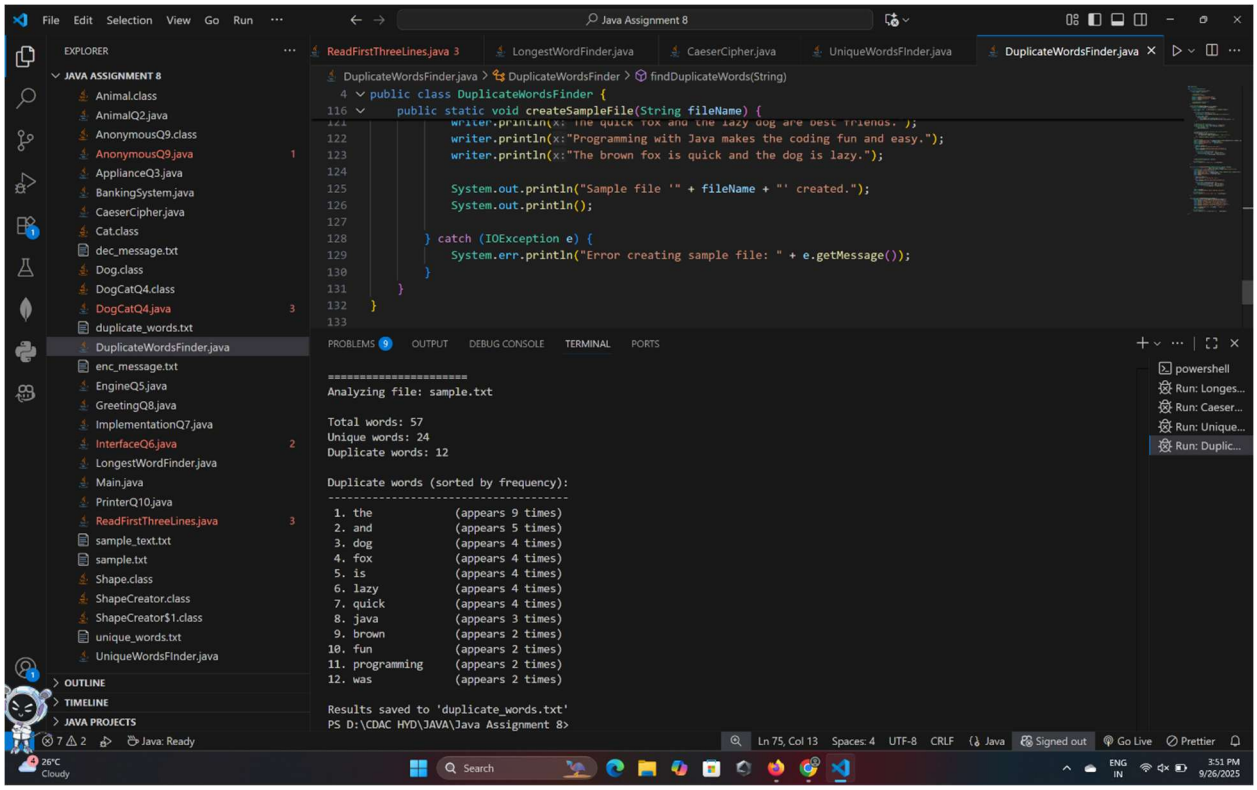
a file (dec_message.txt)



6. Write a program to find unique words in file



7. Write a program to find duplicate words in a file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AnonymousQ9.java 1
ApplianceQ3.java
BankingSystem.java
CaeserCipher.java
Cat.class
dec_message.txt
Dog.class
DogCatQ4.class
DogCatQ4.java 3
duplicate_words.txt
DuplicateWordsFinder.java
enc_message.txt
EngineQ5.java
GreetingQ8.java
ImplementationQ7.java
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ShapeCreator.class
ShapeCreator$1.class
unique_words.txt
UniqueWordsFInder.java
OUTLINE
TIMELINE
JAVA PROJECTS
ReadFirstThreeLines.java 3
LongestWordFinder.java
CaeserCipher.java
UniqueWordsFInder.java
DuplicateWordsFinder.java
DuplicateWordsFinder.java > DuplicateWordsFinder > findDuplicateWords(String)
4 public class DuplicateWordsFinder {
116 public static void createSampleFile(String fileName) {
writer.println("The quick fox and the lazy dog are best friends.");
writer.println("Programming with Java makes the coding fun and easy.");
writer.println("The brown fox is quick and the dog is lazy.");
System.out.println("Sample file '" + fileName + "' created.");
System.out.println();
} catch (IOException e) {
System.err.println("Error creating sample file: " + e.getMessage());
}
}
}
PROBLEMS 9 OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell
Run: Longes...
Run: Caeser...
Run: Unique...
Run: Duplic...
==========
Analyzing file: sample.txt
Total words: 57
Unique words: 24
Duplicate words: 12
Duplicate words (sorted by frequency):
1. the (appears 9 times)
2. and (appears 5 times)
3. dog (appears 4 times)
4. fox (appears 4 times)
5. is (appears 4 times)
6. lazy (appears 4 times)
7. quick (appears 4 times)
8. java (appears 3 times)
9. brown (appears 2 times)
10. fun (appears 2 times)
11. programming (appears 2 times)
12. was (appears 2 times)
Results saved to 'duplicate_words.txt'
PS D:\CDAC HYD\JAVA\Java Assignment 8>
Ln 75, Col 13 Spaces: 4 UTF-8 CRLF Java Signed out Go Live Prettier
Java: Ready
26°C Cloudy
Search
ENG IN
3:51 PM 9/26/2025