

Saiket Systems Internship tasks

Task1

Task 1: Calculator Application

Description:

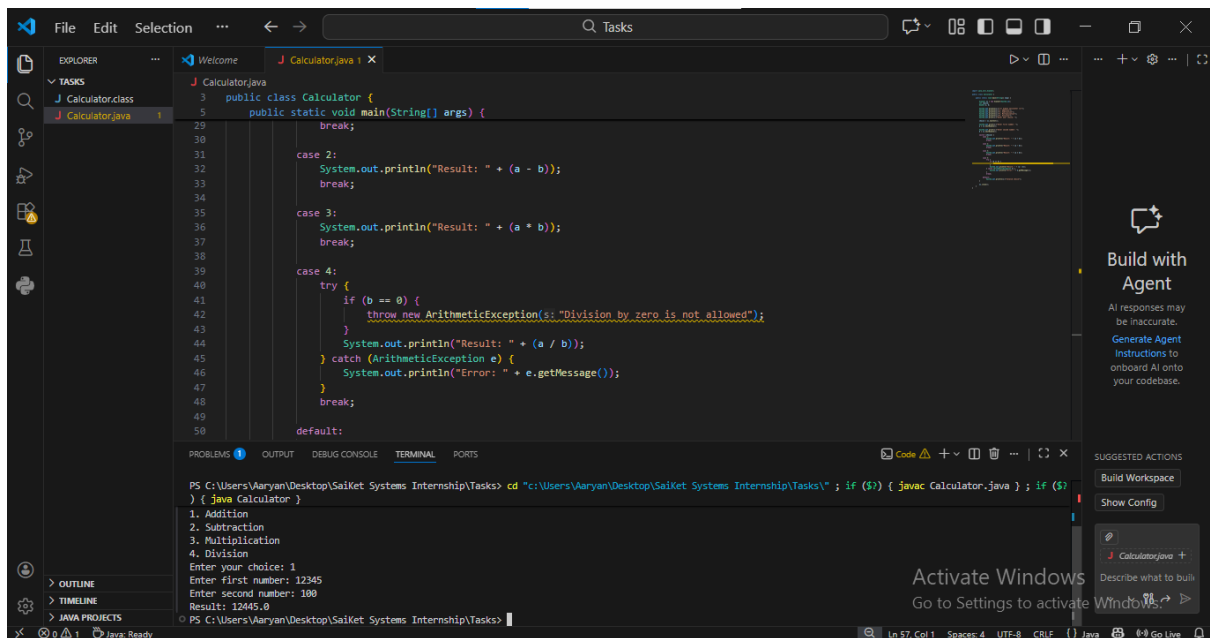
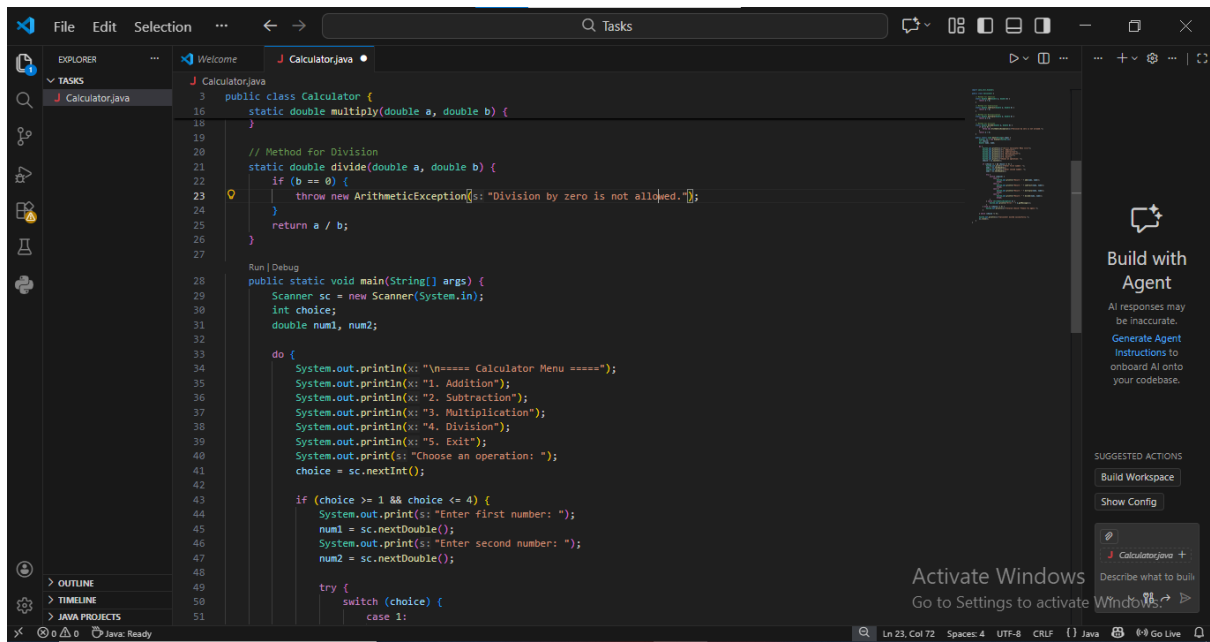
Build a basic calculator application enabling arithmetic operations. Create a user-friendly menu for selecting operations, input numbers, and handle edge cases, such as division by zero, using exception handling. Strengthen your understanding of core Java concepts like methods and conditionals through this task.

Skills:

Core Java Concepts (Methods, Conditionals)

User Input Handling

Exception Handling



Task 2: Temperature Converter

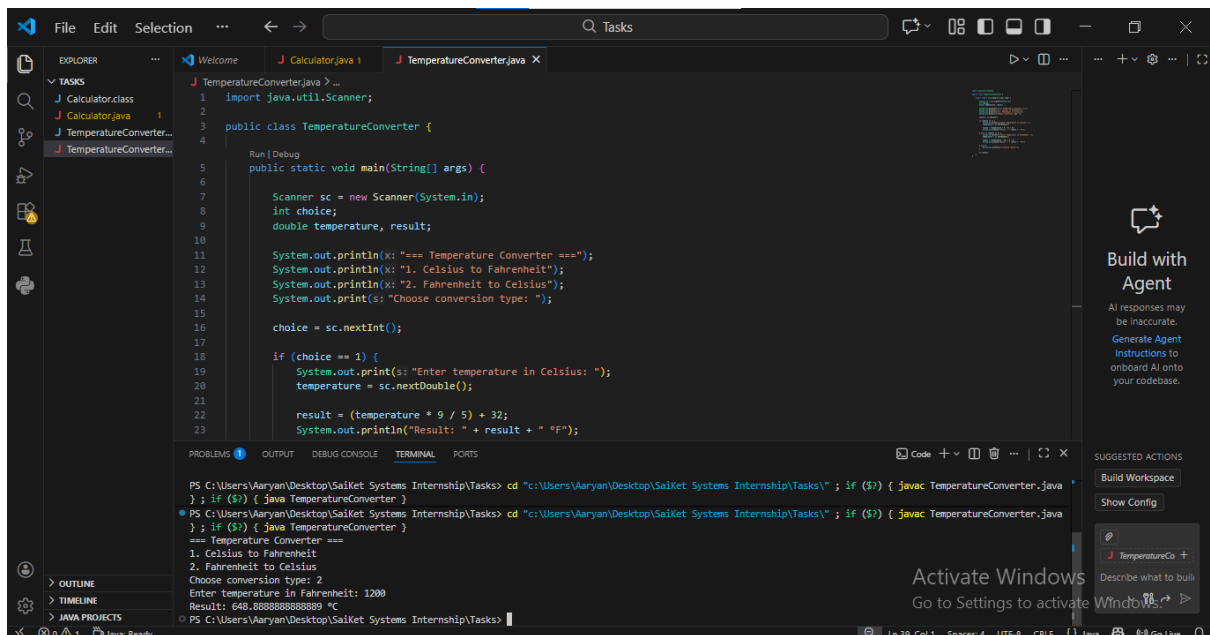
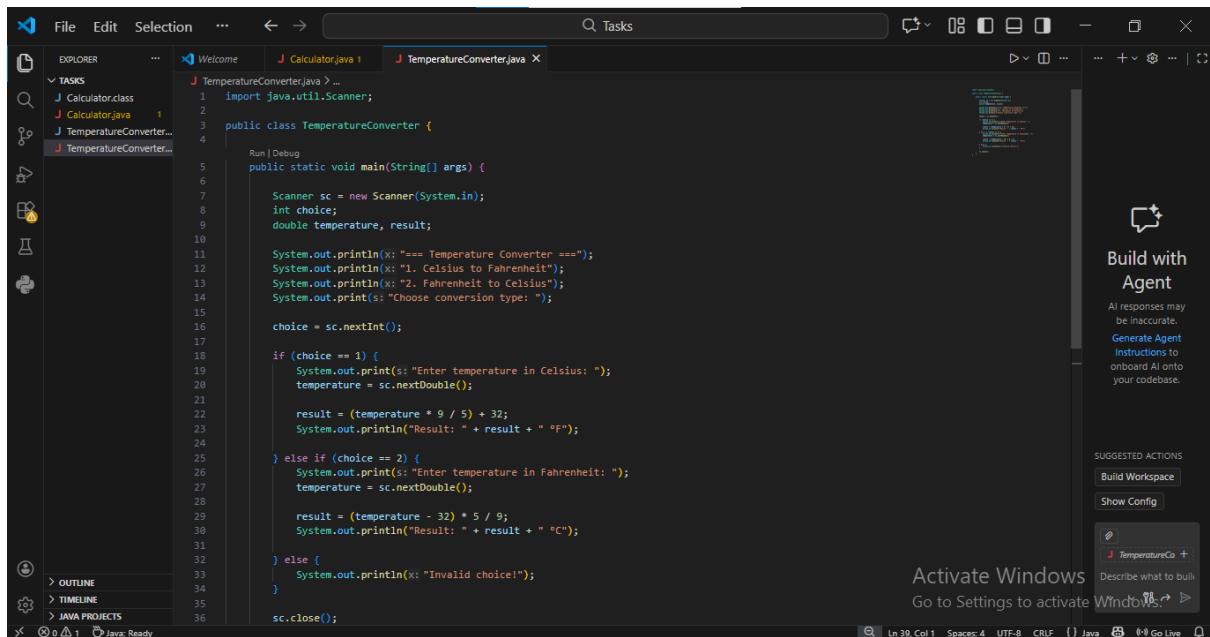
Description:

Create a temperature converter that handles Celsius to Fahrenheit and vice versa. Allow users to choose input and output scales. Implement conversion formulas and provide clear results. This task reinforces your Java programming skills and mathematical operation implementation.

Skills:

Core Java Concepts (Methods, User Input)

Mathematical Operations



Task3

Task 3: To-Do List Application

Description:

Develop a to-do list application where users can manage tasks. Use classes to represent tasks, incorporating attributes like title and status.

Implement functions for adding tasks, marking them as complete, and displaying the task list.

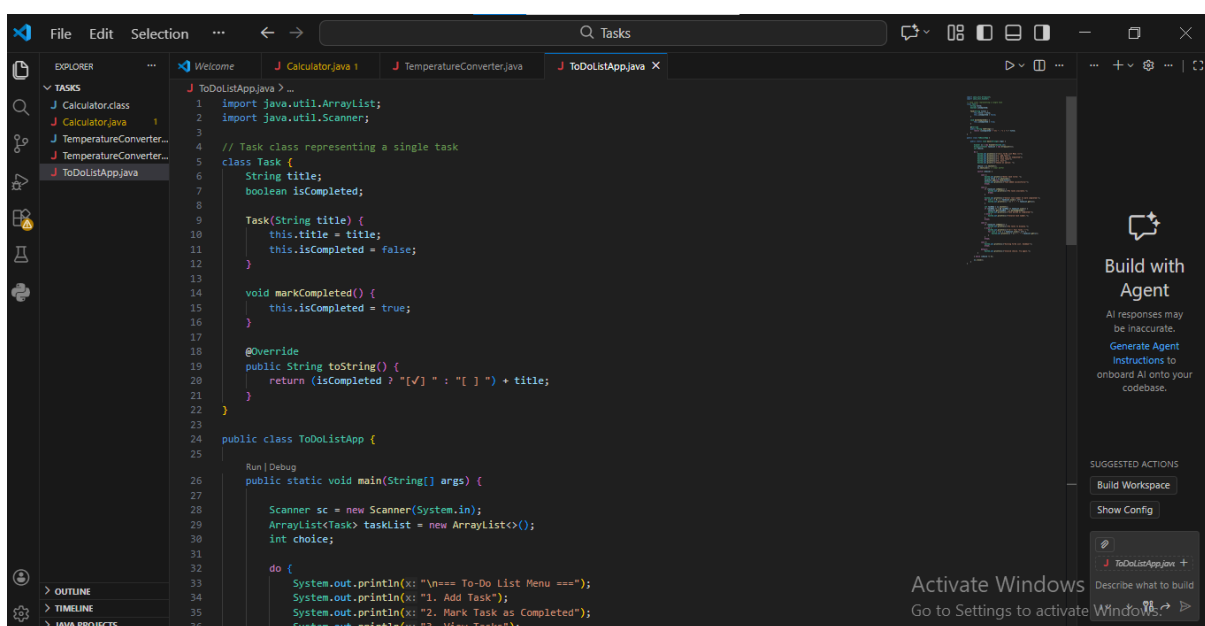
Enhance your knowledge of object-oriented programming and data structure manipulation.

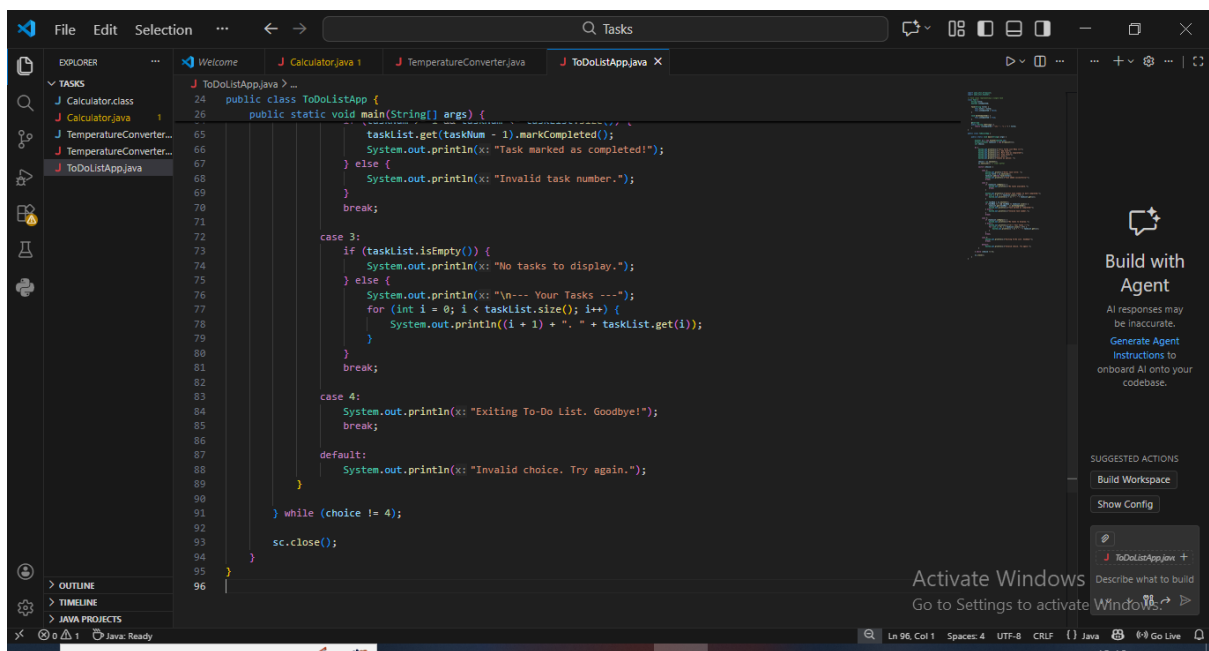
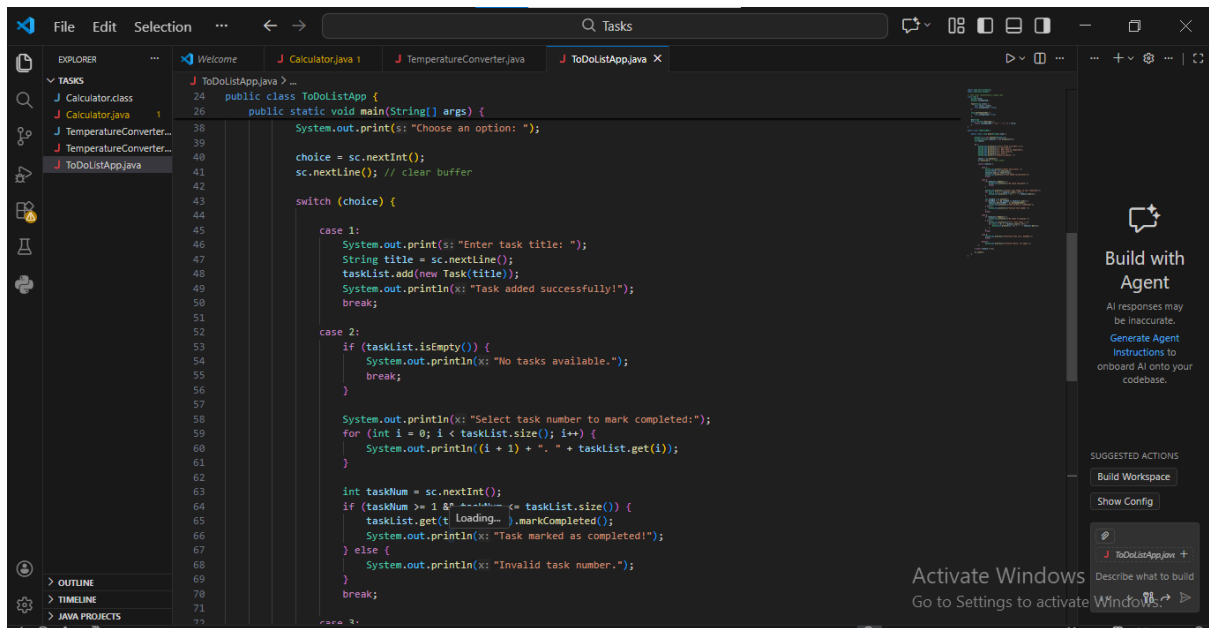
Skills :

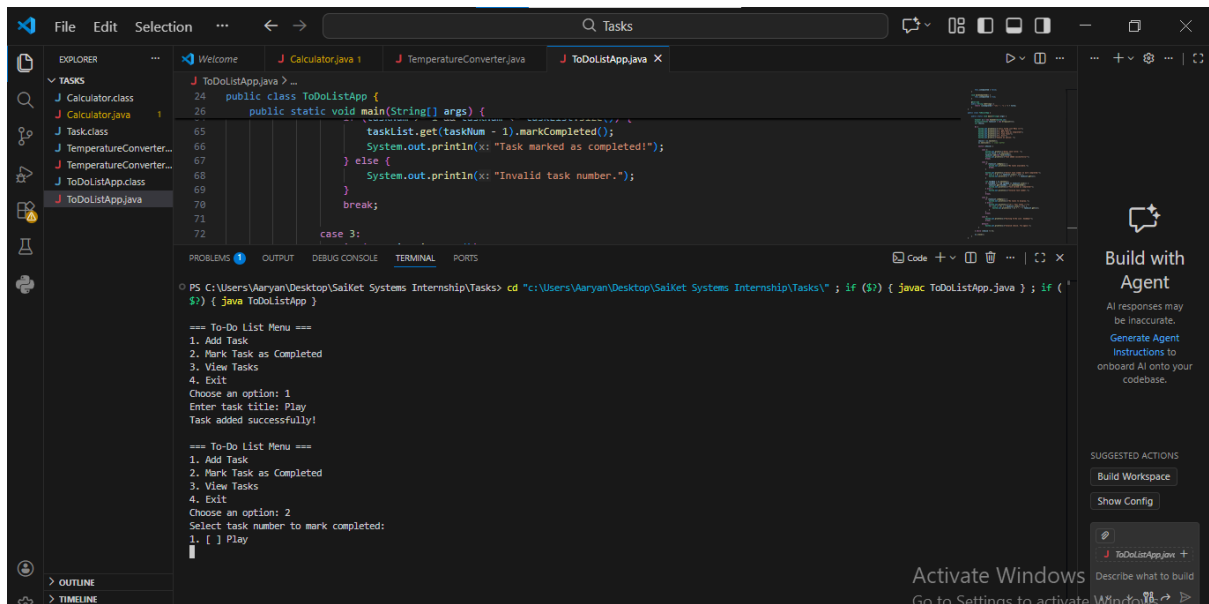
Object-Oriented Programming (Classes, Objects)

Data Structures (Lists)

Conditional Statements





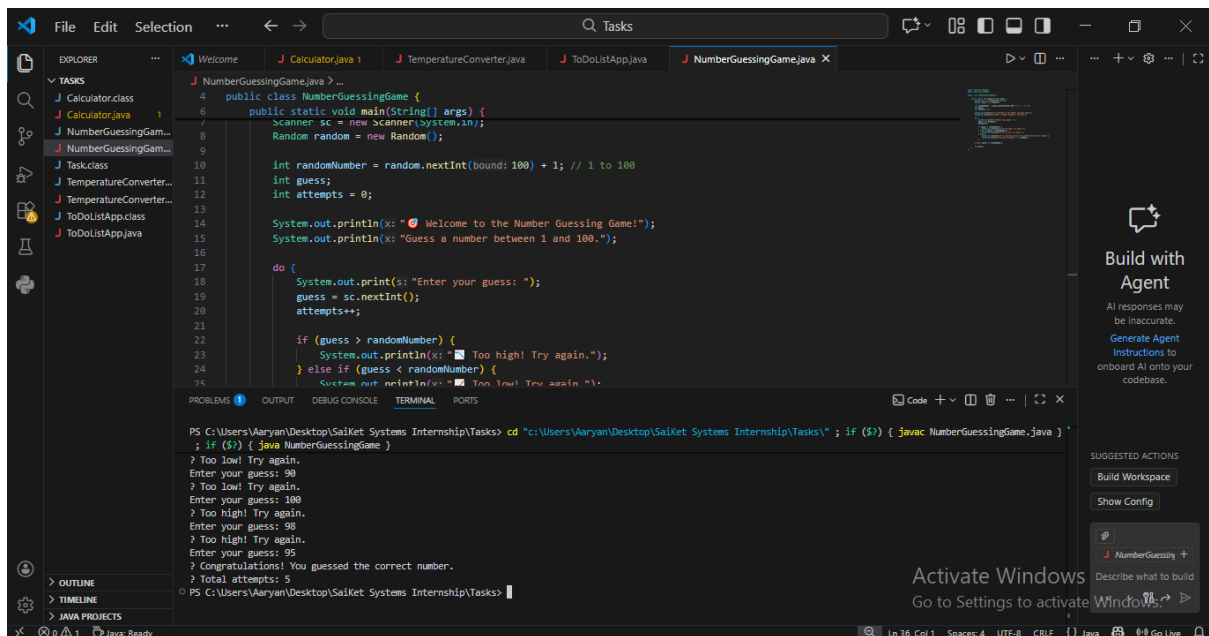
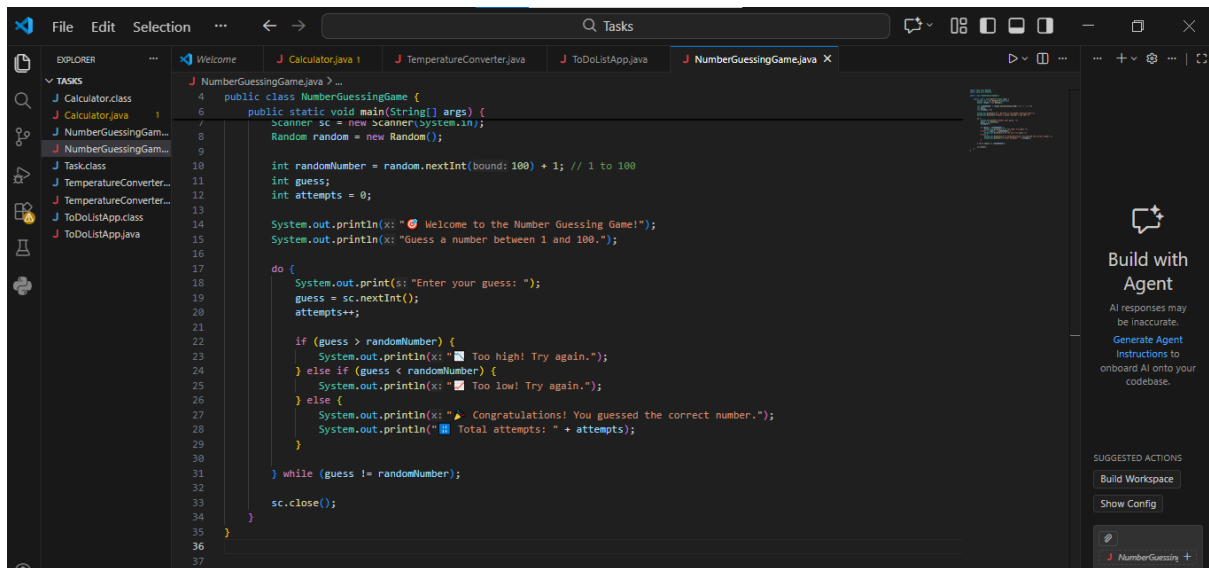


Task4

Task 4: Number Guessing Game Description: Create a number-guessing game where users guess a random number. Provide feedback for high or low guesses and track attempts. Implement loops for multiple attempts and reinforce your skills in handling random numbers and conditional statements.

Skills :

Core Java Concepts (Random Numbers, Loops) User Input Handling Conditional Statements



Task5

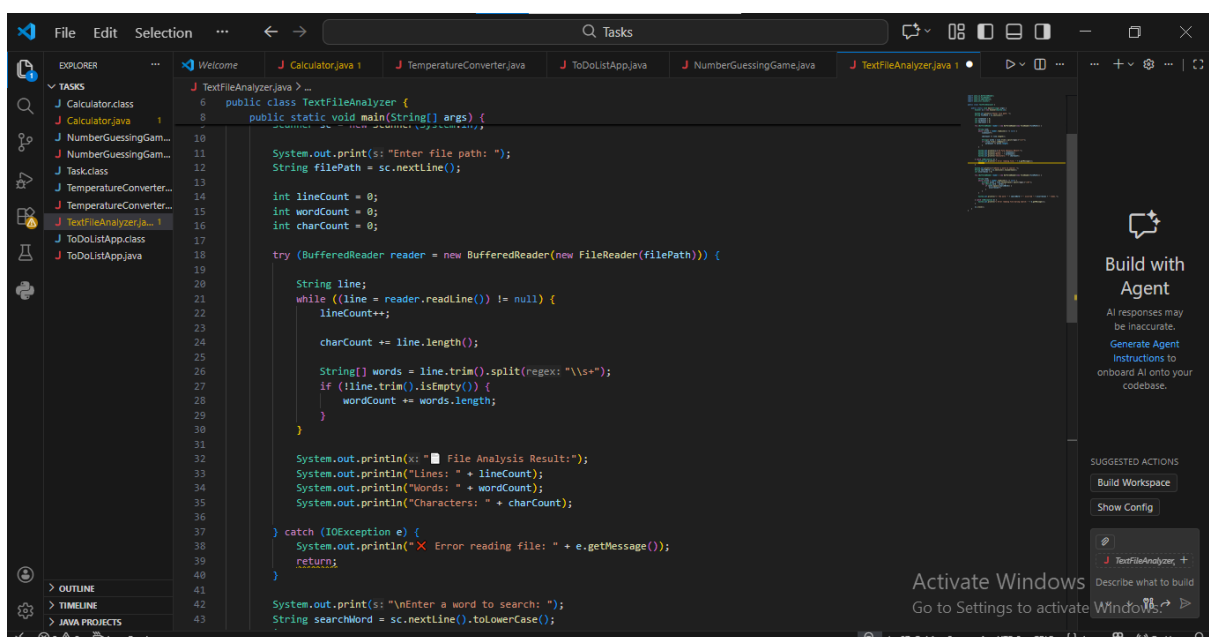
Task 5:

Text File Analyzer Write a program to analyze a text file, counting words, lines, and characters. Implement

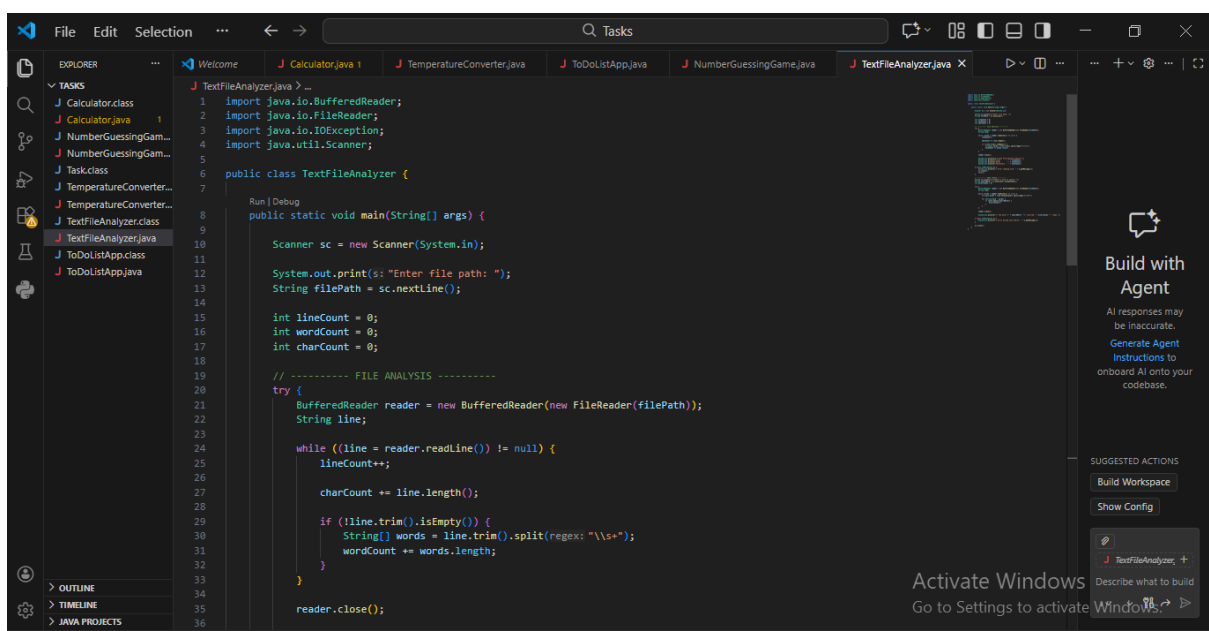
functionality to search for specific words. Utilize file I/O, string manipulation, and exception handling. This task strengthens your file-handling skills and text-processing abilities in Java.

Skills :

File Input/Output in Java String Manipulation
Exception Handling



```
6 public class TextFileAnalyzer {
8     public static void main(String[] args) {
10
11         System.out.print(s: "Enter file path: ");
12         String filePath = sc.nextLine();
13
14         int lineCount = 0;
15         int wordCount = 0;
16         int charCount = 0;
17
18         try (BufferedReader reader = new BufferedReader(new FileReader(filePath))) {
19
20             String line;
21             while ((line = reader.readLine()) != null) {
22                 lineCount++;
23
24                 charCount += line.length();
25
26                 String[] words = line.trim().split(regex: "\\s+");
27                 if (!line.trim().isEmpty()) {
28                     wordCount += words.length;
29                 }
30             }
31
32             System.out.println(x: " File Analysis Result:");
33             System.out.println("Lines: " + lineCount);
34             System.out.println("Words: " + wordCount);
35             System.out.println("Characters: " + charCount);
36
37         } catch (IOException e) {
38             System.out.println(*X Error reading file: " + e.getMessage());
39             return;
40         }
41
42         System.out.print(s: "\nEnter a word to search: ");
43         String searchWord = sc.nextLine().toLowerCase();
```



```
1 import java.io.BufferedReader;
2 import java.io.FileReader;
3 import java.io.IOException;
4 import java.util.Scanner;
5
6 public class TextFileAnalyzer {
7
8     Run | Debug
9     public static void main(String[] args) {
10
11         Scanner sc = new Scanner(System.in);
12         System.out.print(s: "Enter file path: ");
13         String filePath = sc.nextLine();
14
15         int lineCount = 0;
16         int wordCount = 0;
17         int charCount = 0;
18
19         // ----- FILE ANALYSIS -----
20         try {
21             BufferedReader reader = new BufferedReader(new FileReader(filePath));
22             String line;
23
24             while ((line = reader.readLine()) != null) {
25                 lineCount++;
26
27                 charCount += line.length();
28
29                 if (!line.trim().isEmpty()) {
30                     String[] words = line.trim().split(regex: "\\s+");
31                     wordCount += words.length;
32                 }
33             }
34
35             reader.close();
36         }
```

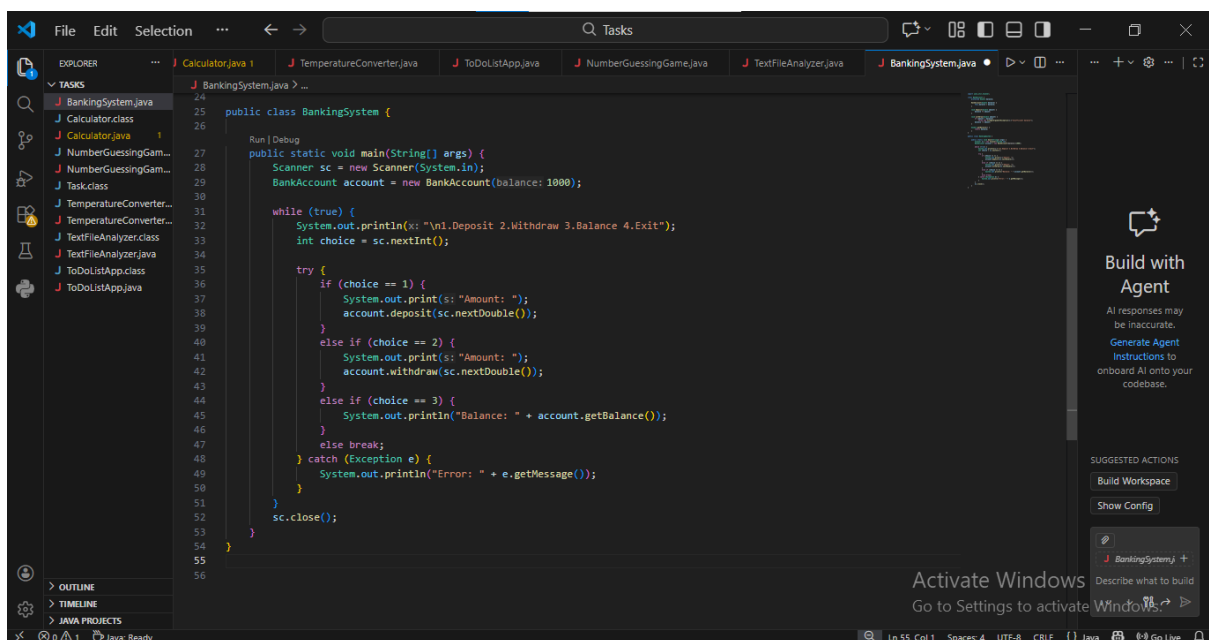
Task6

Task 6:

Basic Banking System Description: Develop a basic banking system where users can manage accounts, perform transactions, and view balances. Utilize classes for representing bank accounts and handle operations like deposit, withdrawal, and transaction history. This task enhances your understanding of classes, inheritance, and exception handling.

Skills: -

Object-Oriented Inheritance) User Input Handling
Exception Handling Programming (Classes, Inheritance)
User Input Handling Exception Handling



The screenshot shows an IDE with a project named 'BankingSystem'. The Explorer pane on the left lists files: BankingSystem.java, Calculator.class, Calculator.java, NumberGuessingGame..., Task.class, TemperatureConverter..., TemperatureConverter..., TextFileAnalyzer.class, TextFileAnalyzer.java, ToDoListApp.class, and ToDoListApp.java. The main editor displays the code for 'BankingSystem.java'.

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