ANSWER’S

Task:1

1 Ans :

Here is a Java program that can read, write, and modify text files using `BufferedReader`, `BufferedWriter`, and `FileWriter`.

Java File Io

This program allows users to:

1. Write content to a file.
2. Read content from a file.
3. Modify content in a file by replacing a specified word.

Users can interact with the program via console input to perform these operations. Let me know if you need modifications

Program :

```
import java.io.*;
import java.util.Scanner;


public class FileHandler {


    // Method to write to a file
    public static void writeFile(String fileName, String content) {
        try (BufferedWriter writer = new BufferedWriter(new FileWriter(fileName, true))) {
            writer.write(content);
            writer.newLine();
            System.out.println("Content written to file successfully.");
        } catch (IOException e) {
            System.out.println("An error occurred while writing to the file.");
            e.printStackTrace();
        }
    }


// Method to read a file
public static void readFile(String fileName) {
    try (BufferedReader reader = new BufferedReader(new FileReader(fileName))) {
        String line;
        while ((line = reader.readLine()) != null) {
```

```
            System.out.println(line);
        }
    } catch (IOException e) {
        System.out.println("An error occurred while reading the file.");
        e.printStackTrace();
    }
}

// Method to modify a file (replace a word in the file)
public static void modifyFile(String fileName, String oldWord, String newWord) {
    File file = new File(fileName);
    StringBuilder content = new StringBuilder();

    try (BufferedReader reader = new BufferedReader(new FileReader(file))) {
        String line;
        while ((line = reader.readLine()) != null) {
            content.append(line.replaceAll(oldWord, newWord)).append("\n");
        }
    } catch (IOException e) {
        System.out.println("An error occurred while reading the file for modification.");
        e.printStackTrace();
        return;
    }

    try (BufferedWriter writer = new BufferedWriter(new FileWriter(file))) {
        writer.write(content.toString());
        System.out.println("File modified successfully.");
    } catch (IOException e) {
        System.out.println("An error occurred while writing the modified content to the file.");
        e.printStackTrace();
    }
}
```

```
public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);

    System.out.print("Enter file name: ");
    String fileName = scanner.nextLine();

    System.out.println("Choose an operation:");
    System.out.println("1. Write to file");
    System.out.println("2. Read file");
    System.out.println("3. Modify file");

    int choice = scanner.nextInt();
scanner.nextLine(); // Consume newline

switch (choice) {
    case 1:
        System.out.print("Enter content to write: ");
        String content = scanner.nextLine();
        writeFile(fileName, content);
        break;
    case 2:
        readFile(fileName);
        break;
    case 3:
        System.out.print("Enter word to replace: ");
        String oldWord = scanner.nextLine();
        System.out.print("Enter new word: ");
        String newWord = scanner.nextLine();
        modifyFile(fileName, oldWord, newWord);
        break;
    default:
        System.out.println("Invalid choice.");
}
```

```
        scanner.close();
    }
}
```

2 Ans :

```
 import java.io.*;
import java.util.Scanner;


/**
 * A Java program demonstrating file operations: reading, writing, and modifying text files.
 */
public class FileHandler {

/**
 * Writes content to a specified file.
 * @param fileName The name of the file to write to.
 * @param content The content to be written.
 */
public static void writeFile(String fileName, String content) {
    try (BufferedWriter writer = new BufferedWriter(new FileWriter(fileName, true))) {
        writer.write(content);
        writer.newLine();
        System.out.println("Content written to file successfully.");
    } catch (IOException e) {
        System.out.println("An error occurred while writing to the file.");
        e.printStackTrace();
    }
}


/**
 * Reads and displays content from a specified file.
 * @param fileName The name of the file to read from.
 */
```

```
public static void readFile(String fileName) {
    try (BufferedReader reader = new BufferedReader(new FileReader(fileName))) {
        String line;
        while ((line = reader.readLine()) != null) {
            System.out.println(line);
        }
    } catch (IOException e) {
        System.out.println("An error occurred while reading the file.");
        e.printStackTrace();
    }
}

/**
 * Modifies a file by replacing all occurrences of a word with a new word.
 * @param fileName The name of the file to modify.
 * @param oldWord The word to be replaced.
 * @param newWord The new word to replace the old one.
 */
public static void modifyFile(String fileName, String oldWord, String newWord) {
    File file = new File(fileName);
    StringBuilder content = new StringBuilder();

    try (BufferedReader reader = new BufferedReader(new FileReader(file))) {
        String line;
        while ((line = reader.readLine()) != null) {
            content.append(line.replaceAll(oldWord, newWord)).append("\n");
        }
    } catch (IOException e) {
        System.out.println("An error occurred while reading the file for modification.");
        e.printStackTrace();
        return;
    }
```

```
    try (BufferedWriter writer = new BufferedWriter(new FileWriter(file))) {
        writer.write(content.toString());
        System.out.println("File modified successfully.");
    } catch (IOException e) {
        System.out.println("An error occurred while writing the modified content to the file.");
        e.printStackTrace();
    }
}

/**
 * Main method to interact with the user and perform file operations.
 */
public static void main(String[] args) {
    Scanner scanner = new Scanner(System.in);

    System.out.print("Enter file name: ");
    String fileName = scanner.nextLine();

    System.out.println("Choose an operation:");
    System.out.println("1. Write to file");
    System.out.println("2. Read file");
    System.out.println("3. Modify file");

    int choice = scanner.nextInt();
scanner.nextLine(); // Consume newline

switch (choice) {
    case 1:
        System.out.print("Enter content to write: ");
        String content = scanner.nextLine();
        writeFile(fileName, content);
        break;
    case 2:
```

```
            readFile(fileName);
            break;
        case 3:
            System.out.print("Enter word to replace: ");
            String oldWord = scanner.nextLine();
            System.out.print("Enter new word: ");
            String newWord = scanner.nextLine();
            modifyFile(fileName, oldWord, newWord);
            break;
        default:
            System.out.println("Invalid choice.");
    }
        scanner.close();
    }
}
```