

File Handling in Java: Overview and Implementation

Introduction:

File handling in Java is a vital aspect of software development, allowing manipulation of files stored on a computer's filesystem. The primary objective of file handling operations in Java is to provide developers with tools to interact with external data sources efficiently. This includes creating, reading, writing, appending, updating, and deleting files.

Objective:

The objective of this Java program is to demonstrate file handling operations such as creating files, reading data from files, writing data to files, appending data to files, updating data in files, and deleting files. The program takes input from the user to perform these operations dynamically.

Implementation:

1. User Input:

- Prompt the user to enter the name of the file they want to create or manipulate.
- Display options for different file handling operations.

2. File Creation:

- If the user chooses to create a file, ask for the file name and create the file.

3. Reading from File:

- If the user chooses to read from a file, read the content of the specified file and display it to the user.

4. Writing to File:

- If the user chooses to write to a file, ask for the content they want to write and write it to the specified file.

5. Appending to File

- If the user chooses to append to a file, ask for the content they want to append and append it to the specified file.

6.Updating Data in File:

- If the user chooses to update data in a file, read the existing content, allow the user to make modifications, and overwrite the file with the updated content.

7. Deleting File:

- If the user chooses to delete a file, delete the specified file from the filesystem.

Conclusion:

This Java program provides a comprehensive demonstration of file handling operations, allowing users to dynamically interact with files by creating, reading, writing, appending, updating, and deleting data. By taking input from the user, the program showcases the flexibility and versatility of file handling in Java.

Algorithm:

1. Start the program.
2. Prompt the user to enter the name of the file they want to create or manipulate.
3. Display options for different file handling operations: create, read, write, append, update, delete.
4. Based on the user's choice, perform the corresponding file handling operation:
 - a. If creating a file, ask for the file name and create the file.
 - b. If reading from a file, read the content of the specified file and display it to the user.
 - c. If writing to a file, ask for the content to write and write it to the specified file.
 - d. If appending to a file, ask for the content to append and append it to the specified file.
 - e. If updating data in a file, read the existing content, allow the user to make modifications, and overwrite the file with the updated content.
 - f. If deleting a file, delete the specified file from the filesystem.
5. Repeat steps 2-4 until the user chooses to exit the program.
6. End the program.