

File Path Splitter Program

Name of the Program

File Path Splitter

Explanation

This program takes a full path and filename as input from the user and extracts the directory path, filename, and file extension separately. It uses basic Java library functions to achieve this.

Steps Involved:

1. **Reading Input:** The program uses a `Scanner` object to read the full path of the file from the user.
2. **Defining Separators:** The program defines two characters to separate the path and file extension: `pathSeparator` for directory paths and `extensionSeparator` for the file extension.
3. **Finding Indices:** The program finds the positions of the last path separator and the last dot separator in the full path using `lastIndexOf`.
4. **Extracting Substrings:** The program extracts the directory path, filename without the extension, and file extension using the `substring` method.
5. **Outputting Results:** The program prints the directory path, filename, and file extension to the console.

Code

```
import java.util.Scanner;

public class FilePathSplitter {
    public static void main(String[] args) {

        // Create a Scanner object to read input from the user

        Scanner scanner = new Scanner(System.in);

        // Ask the user to enter the full path of the file
```

```

System.out.print("Enter the full path of the file: ");
String fullPath = scanner.next();

// Define the characters used to separate the path and file extension

char pathSeparator = '/'; // Using '/' for simplicity in the example
char extensionSeparator = '.';

// Find the position of the last path separator in the full path

int lastPathSeparatorIndex = fullPath.lastIndexOf(pathSeparator);

// Extract and print the file path (directory path)
String directoryPath = fullPath.substring(0, lastPathSeparatorIndex);
System.out.println("Directory Path: " + directoryPath);

// Find the position of the last dot separator in the full path
int lastDotSeparatorIndex = fullPath.lastIndexOf(extensionSeparator);

// Extract and print the file name without the extension
String fileName = fullPath.substring(lastPathSeparatorIndex + 1, lastDotSeparatorIndex);
System.out.println("File Name: " + fileName);

// Extract and print the file extension
String fileExtension = fullPath.substring(lastDotSeparatorIndex + 1);
System.out.println("File Extension: " + fileExtension);
}
}

```

Example

Input:

Enter the full path of the file: C:/Users/admin/pictures/flowers.jpg

Output:

Directory Path: C:/Users/admin/pictures

File Name: flowers

File Extension: jpg