

# Hierarchical Directories Challenge

Implement a program that displays a directory(folder) structure in a GUI, allowing the user to navigate back and forth between the directories. You will be provided with a file containing the directory hierarchy. The data inside the file is JSON encoded. You are required to read the file through a HTTP GET request, parse the JSON data inside it and construct objects representing the folders.

For the Android track, your solution must be written in Java.

For the iOS track, you can write it in any programming language you see fit.

This challenge has been divided into several tasks with gradually increasing levels of difficulty. All tasks are not mandatory for the completion of the challenge. At the end of the day, send us the solution you have managed to implement even if it is not fully functional.

1. Read one of the provided files, extract the folder structure info and display it to the console, in a user friendly format. You must read the file at runtime through a HTTP GET request and not download the file and save it in your project.

Example of printed result:

```
Music
    song1.mp3
    song2.mp3
Pictures
    picture1.png
    picture2.png
Documents
    Workspace
        Project1
        Project2
Downloads
Videos
```

The files can be found here:

1. <http://www.mready.net/devacademy/input1.json>
  2. <http://www.mready.net/devacademy/input2.json>
  3. <http://www.mready.net/devacademy/input3.json>
2. Create a simple Graphical User Interface(GUI) that displays a list with the top level directories. For the sample folder structure displayed above, the list would contain: Music, Pictures, Documents, Downloads and Videos. Here's a couple of popular

frameworks that you can use for creating your GUI: Swing(Java), QT(c++), Tkinter(python), GTK(php).

3. Add a feature to allow the user to navigate between folders. Clicking on a folder should display its direct subfolders. Add a back button to go up one level in the directory hierarchy.
4. Divide your application screen into two columns. Initially the column on the left will contain the top level folders, while the right column will be empty. When clicking on a folder on the left column, the right column will display its(i.e the folder's) subfolders. When clicking on a folder on the right column, move all the content of the right column to the left column. Also change the content of the right column to display the items of the clicked folder.

*Illustration of how the content might be organized after completing the fourth task*

