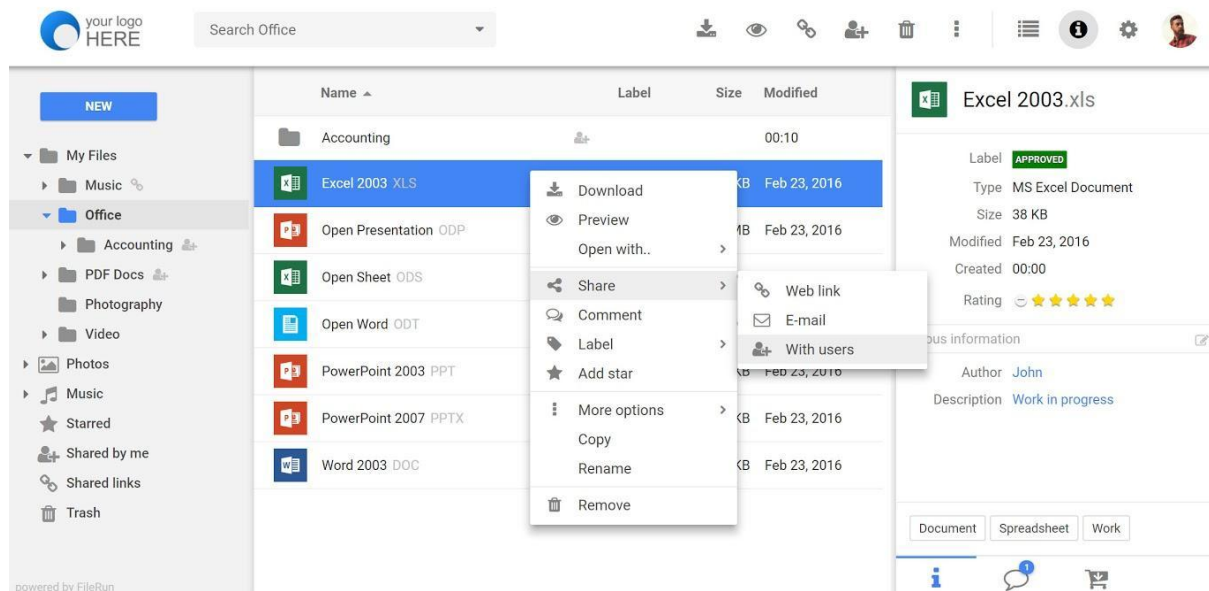


# Introduction

In this project you will have to create a **system file explorer** that allows the **user** to **navigate, create directories** and **upload files** in the same way as he would in his usual **operating system**. The file explorer is a **tool** that allows you to directly **view and manipulate the files and directories** associated with a **path**, so you must take into account from which **path** the user starts and which path they can access.

In the following image you can see an **example** that can serve as a reference:



## What are the main objectives in this project?

- Understand how the **file system** works
- Improve your knowledge in **PHP**
- Improve your knowledge in **HTML, CSS & Javascript**

- Improve your knowledge in **logic** and **programming**

## 1. General analysis

First of all, you will have to **analyze the project requirements**, with which you can get an idea of the **project objectives**, then **design the structure** of the application and analyze the **actions** that the user can do so that when **programming** you have clear which are the **keys points** and a previous idea of what the **user interface** will be like .

### Step 1: Analyze the project requirements

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In the first step you must **analyze** the **requirements** that the **project must meet** and what **actions** the **user** can do.

- **Create, modify and delete directories**
- **Browse through directories** from an **initial path**
  - The **initial path** will start from a **folder** inside the **project repository** whose name will be "**root**".
- **Search directories and files by name**
  - In the case of **searching** for **files by name**, you must also be able to specify **their extension as part of the name**.
- **Navigate through the initial path** established and all the folders created from that path. Therefore the **user will not be able** to see or **navigate** to the **parent folders of the "root" folder**.
- **Upload a file** to a directory
- **See** the following **information** of **files** and **directories**
  - Creation date
  - Last Modified Date

- Extension (if it's a file)
  - Size
    - If it is less than **1 MB** show **KB**, otherwise show **MB**
- **Show** the **icon** of the main **file extensions** such as:
  - doc
  - csv
  - jpg
  - png
  - txt
  - ppt
  - odt
  - pdf
  - zip
  - rar
  - exe
  - svg
  - mp3
  - mp4
- **View** the uploaded **images**.
- **Play** the uploaded **videos**.
- **Play** the uploaded **audios**.

## Step 2: Design the project structure

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**Before** starting to **develop the project** you should take into account and **analyze** the following points:

- How will the **interface** be
  - You will have to **design a wireframe** of your application taking into account the requirements.
- What **actions** can be executed by the user
  - You will have to **design a use case diagram**
- **Analyze** and **understand** what brings more value to the user
- **Analyze** how you will organize the project at the level of **directories** and **files**

### Step 3: Start to develop the project

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Once you have all the **designs** and **organization** of your **project** raised, you must **start developing it**.

### Step 4: Extra functionalities

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In addition to the **requirements** mentioned above, you can add the following **extra functionalities** so that the **user is able to**:

- **Show the information** of the uploaded **".csv"** files on the screen.
- **Move files** and **directories between folders**
- When **deleting** a **file** or **folder**, it will be moved to a **specific folder** called **"trash"**, so if you want to **delete it completely** you must delete it from the mentioned folder.

## 2. Project organization

Next you will have to create a document where you can explain in detail how the current project is organized. It is important that it be updated throughout the life of the project. A PDF version is required within the project folder for the project documentation.

The document must include at least:

- Requirements documentation
- Wireframes
- Use case diagram
- Record of incidents that were detected during project execution
- Record of lessons learned

## 3. Development

Develop the **file system explorer** taking into account its **architecture** and respecting the **frontend** and **backend layers**. It is important that you keep in mind that the **organization** is very important as well as the **documentation** you provide to the project.

## 4. Requirements

- You **will not be able** to use **global variables** in **PHP**.
- You must use **GIT**

- You must use the **PHP > v8**
- Create a **clear** and **orderly directory structure**
- Both the **code** and the **comments** must be written in **English**
- Use the **camelCase** code style to define variables and functions
- In the case of using **HTML**, **never** use **inline styles**
- In the case of using different programming languages **always define the implementation in separate terms**
- Remember that it is important to **divide the tasks into several sub-tasks** so that in this way you can associate each particular step of the construction with a **specific commit**
- You should try as much as possible that the **commits** and the **planned tasks** are the same
- **Delete files** that are not used or are not necessary to evaluate the project

## 5. Deliverables

To evaluate the project you will need the following deliveries:

- Repository with code
- You must create a correctly documented README file in the root directory of the project (see guidelines in **Resources**)
- Project documentation in PDF format
- Presentation in PDF format explaining:
  - Comparison of the original design (Wireframe) with the final result of the project
  - Comparison of the use case diagram with the actions that the user can finally perform
  - Comparison of the original use case diagram with the final user actions

- What lessons you've learned during this project
- What problems have you encountered when developing this project?
- How you have organized and distributed the tasks

## 6. Resources

- File system: [https://es.wikipedia.org/wiki/Administrador\\_de\\_archivos](https://es.wikipedia.org/wiki/Administrador_de_archivos)
- PHP FileSystem W3C:  
[https://www.w3schools.com/php/php\\_ref\\_filesystem.asp](https://www.w3schools.com/php/php_ref_filesystem.asp)
- PHP FileSystem [Oficial]:  
<https://www.php.net/manual/es/book.filesystem.php>
- README Guidelines Example:  
<https://gist.github.com/PurpleBooth/109311bb0361f32d87a2>

### 6.1. Wireframes web tools

- Moqups: <https://app.moqups.com/>
- Draw.io: <https://app.diagrams.net/>
- Cacao: <https://cacao.com/es/>