

ADS Lab 04 - Scripting

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Task 1: Set up web directory

1. Create the directory `public_html`. Create a file `foo.txt` in it and retrieve the file using the browser on your local machine.

Une fois connecté sur le serveur, il suffit de créer un nouveau répertoire `public_html` et d'ajouter un fichier `foo.txt`.

```
mkdir public_html
cd public_html
touch foo.txt
vim foo.txt
```

Ajouter le texte à afficher dans le `foo.txt`

2. Navigate to the URL `http://ads.iict.ch/~albert_einstein/foo.txt`. You should see the contents of the file.

On retrouve le contenu du fichier `foo.txt` à l'URL (pour notre groupe):

`https://ads.iict.ch/~laba/foo.txt`

Task 2: Create thumbnails

1. Download a zip archive containing the picture and brochure files from this URL: `http://ads.iict.ch/lab04_raw_files.zip`. Use the commands `curl` to download and `unzip` to unarchive. By placing the files into your web directory you can inspect them using your browser.
2. Display the dimensions of a few pictures by using ImageMagick's `identify` command. This command has a powerful feature where one can specify a format string (similar to the `printf()` format string in C) that specifies the information to print.
3. Write a script called `show_dimensions` that loops through all the picture files and shows for each its name and its dimensions. For the loop use the `for .. in .. do .. done` control structure.

`show_dimension` script

4. Write a script called `rename_pictures` that produces picture files that have the dimensions in their name. For example if a picture is called `building.jpg` and has a width of 1024 and a height of 768 pixels the script should create a file `building_1024_768.jpg`. The script should not modify the original files, but create new ones. When you run the script several times how do you

prevent the dimensions from accumulating in the name, like building_1024_768_1024_768_1024_768.jpg ? The original files can be named anything. They could have the dimensions in the file name accidentally. Change the script and/or the organization of the files so that the dimensions don't accumulate ad infinitum. Put a comment into the script explaining how you did it. Hint: There is a very simple solution. Analyzing the filename is way too complicated.

rename_picture script

5. With a few pictures try to create a smaller thumbnail where the largest side is 300 pixels. Use ImageMagick's convert command like so:

```
convert -geometry 300 picture.jpg picture_thumb.jpg
```

6. Write a script called make_thumbnails that loops through all the picture files and creates a thumbnail for each. If the picture file is named building.jpg the corresponding thumbnail should be named building_thumb.jpg When you run the script several times how do you prevent making thumbnails from thumbnails? Add a comment to the script explaining your solution.

make_thumbnail script

7. With a few PDF files try to create a thumbnail. In contrast to pictures PDF documents can have several pages. One needs to specify to the convert command that only the first page should be processed. This is done by appending the string [0] to the filename like so (no space between the two):

```
convert -geometry 300 document.pdf[0] document_thumb.jpg
```

Since the latest versions of ImageMagick, PDF conversion is disabled by default for security reasons. Automated conversion of PDF documents provided by visitors, e.g. uploaded on a website, can cause the execution of malicious code contained in the PDF. To reactivate this feature, you must comment out the line at the end of the /etc/ImageMagick6/policy.xml file

8. Improve the script so that it generates thumbnails for both pictures and PDF documents.

make_thumbnail script

Task 3 : Generate HTML file

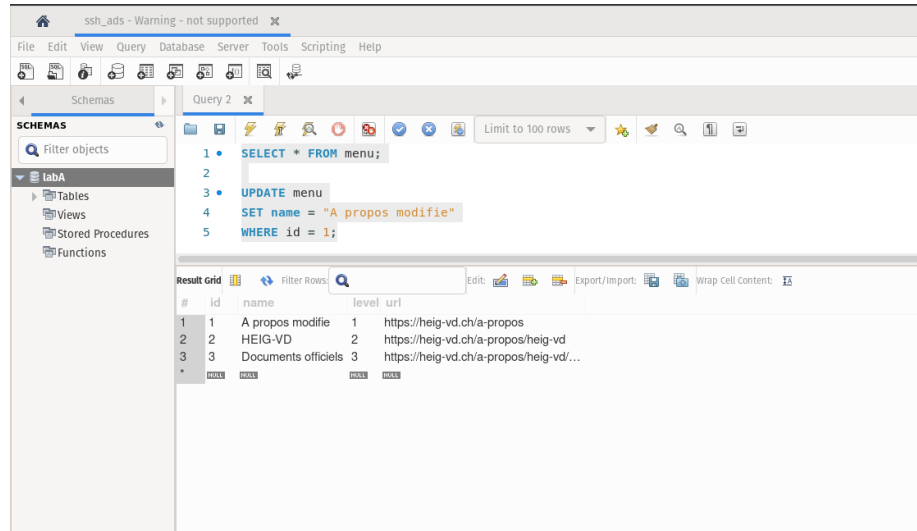
make_html script

make_php script

Task 4 : Use SSH Tunneling

SSH command :

```
ssh -L 9090:localhost:3306 laba@ads.iict.ch
```



Photos et brochures

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1. A propos modifie
2. HEIG-VD
3. Documents officiels
4. Photos et brochures