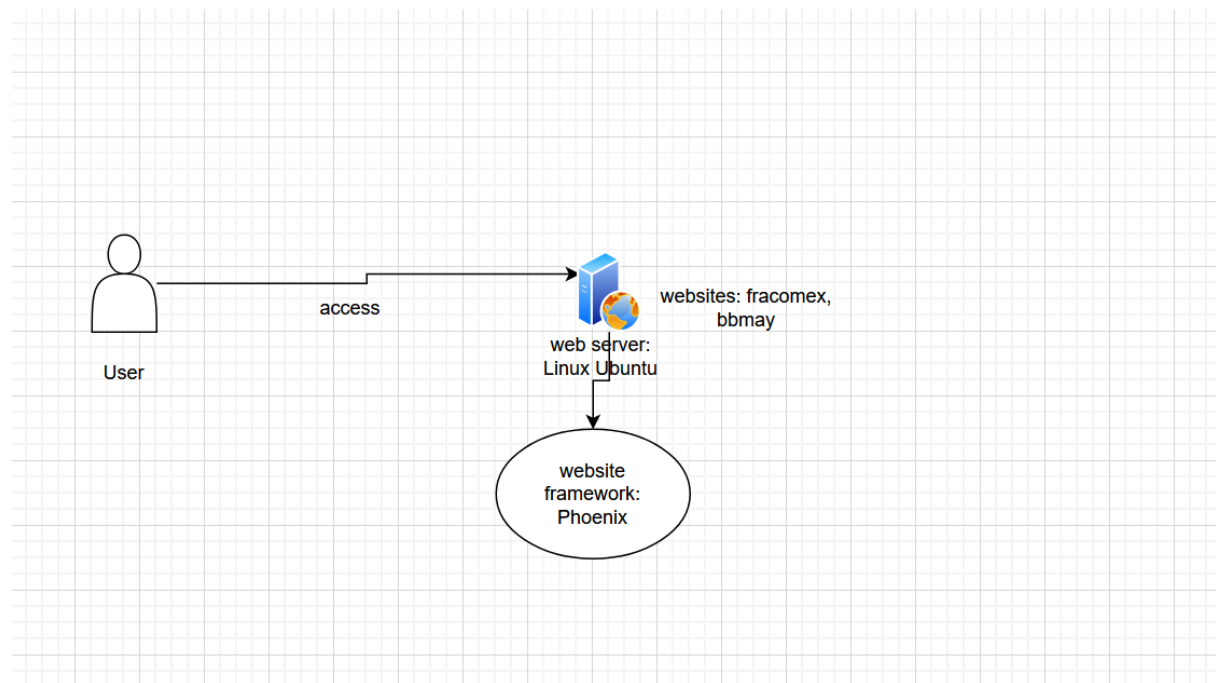# Phoenix server does not start when main server stops/restarts (22/12/23)

Problem:

💡 Website (fracomex, bbmay,...)not displayed when Linux Ubuntu server stops or restarts

Cause:

- The web server framework (Phoenix) does not launch automatically after the main server is restarted.

Possible solutions:

- Launch Phoenix server manually (short-term solution)

- Configure Phoenix framework to launch automatically after main server restart (long-term solution)

Sub-problem: Site still not displayed after manual launch of Phoenix server

- The development team started the Phoenix server manually after rebooting the main Ubuntu server. As usual, the Elixir command and the command to start the Phoenix server are recognized by the mgbi user, but the site is still not displayed.

```
mgbi@mgbi:~/elixir/bbmay/prod/bbmay_prod$ iex -S mix phx.server
Erlang/OTP 24 [erts-12.2.1] [source] [64-bit] [smp:2:2] [ds:2:2:10] [async-threads:1] [jit]

warning: use Mix.Config is deprecated. Use the Config module instead
  config/config.exs:8

warning: use Mix.Config is deprecated. Use the Config module instead
  config/dev.exs:1

Could not start Hex. Try fetching a new version with "mix local.hex" or uninstalling it with "mix archive.uninstall hex.ez"
** (MatchError) no match of right hand side value: {:error, {:ssl, {'no such file or directory', 'ssl.app'}}}
    (hex 2.0.6) lib/hex.ex:5: Hex.start/0
    (mix 1.13.0) lib/mix/hex.ex:59: Mix.Hex.start/0
    (mix 1.13.0) lib/mix/dep/loader.ex:194: Mix.Dep.Loader.with_scm_and_app/4
    (mix 1.13.0) lib/mix/dep/loader.ex:147: Mix.Dep.Loader.to_dep/3
    (elixir 1.13.0) lib/enum.ex:1593: Enum."-map/2-lists^map/1-0-"/2
    (mix 1.13.0) lib/mix/dep/loader.ex:364: Mix.Dep.Loader.mix_children/2
    (mix 1.13.0) lib/mix/dep/loader.ex:18: Mix.Dep.Loader.children/0
    (mix 1.13.0) lib/mix/dep/converger.ex:57: Mix.Dep.Converger.all/4
```

- The elixir command is found as a normal user (mgbi), but is not found as root, which also means that the command to start the Phoenix server is not recognized by the root user.

In user mgbi, elixir -v, the command is found

In user root, elixir -v, the command cannot be found

Causes of the sub-problem:

- The Elixir environment variable is not found in /user/bin, (normally there should be /user/bin/elixir) in the user root, but if it doesn't exist in the user root who is the main server admin, he won't be able to allow the user mgbi to use the Elixir command and also the Phoenix server services.

Solutions to sub-problems:

- Install Elixir as root user:
    - in root, apt install elixir

Result

- Fixes the environment variable problem
- elixir is now recognized in both users (mgbi, root)
- The site is now accessible

Long-term problem-solving steps: Configure the Phoenix framework to launch automatically after the main server reboot.

Done this 22/12/23

Testing and deployment

- Install Elixir on a test Ubuntu machine

  - Install the Phoenix framework

  - Initialize a test project

  - Test whether the Phoenix service does not start automatically after the main server is restarted (proven: the Phoenix service does not start automatically after the server is restarted)

  - Configure Phoenix framework to start automatically after restart of main server

    💡 https://operavps.com/docs/run-command-after-boot-in-linux/

  - create a Phoenix server autorun script (in the deployment section, note that you need to change the project directory location and the command to start the Phoenix framework to the appropriate directory)

```
nano script_name.sh
```

```
#! /bin/bash
# project directory location and the command to start the Phoenix fr
amework
sudo bash -c 'cd /home/antonio/mgbi/test_phx_service && mix phx.
server'
```

  - Execute script

```
chmod +x script_name.sh
```

- Test/execute script before proceeding with further configuration (optional, if required)

```
./script_name.sh
```

- create a service in `/etc/systemd/system/` using the systemctl command
  - sudo nano /etc/systemd/system/service_name.service
  - Inside the file service_name.service (note that in deployment, you must change the directory of the file containing the script to its appropriate location)

    ```
    [Unit]
    #Nom du service
    Description=test_phx_service

    After=network.target

    [Service]
    #ExecStart:exécute une tâche au démarrage de la machine
    #/home/antonio/mgbi/test_phx_service.sh : directory where the script is
    ExecStart=/home/antonio/mgbi/test_phx_service.sh

    [Install]
    WantedBy=default.target
    ```

  - Restart systemd manager to take changes into account

    ```
    sudo systemctl daemon-reload
    ```

  - Enable and start the service

    ```
    sudo systemctl enable my_project
    sudo systemctl start my_project
    ```

- Successful test and deployment: the Phoenix framework launches automatically after restarting the Ubuntu web server.