

Apache web server administrator (shell script project)

Overview

This script is used to provide system admin with simple menu views through which he can control the apache web server common used operations starting from installation , start , stop , adding virtual hosts to host multiple websites and restricting any of them by user authentication.

Application walk-through:

- run the program (./main.sh)

```
Bash_Project$ sudo ./main.sh
Welcome root to Apache web server administrator
1) Show Apache status          6) display available websites
2) Install Apache              7) Adminstrate VirtualHosts
3) Remove Apache               8) Configure Authentication
4) Start Apache                9) Quit
5) Stop Apache
Please enter your choice: 0
```

- Administrate Virtual Hosts menu

```
Please enter your choice: 7
1) Add new VH                  3) Enable VH                    5) Quit
2) delete existing VH         4) Disable VH
```

- Configure Authentication Menu

```
Please enter your choice: 8
1) Add new user and password  3) Unrestrict VH website
2) Restrict VH website        4) Quit
Please enter your choice: 1
```

Notes:

- the script can be run by root user or it will ask for password through running the script before many commands execution.
- To view the menu again to know the available choices to choose, just click enter
- When user select a menu option that lead to another menu, when he needs to quit the program he should quit first menu then quit the first one option or select any other option from the first one.

Files and Functions:

1- main.sh

the main file that our script start from. it contains including other files in the right order and displaying the main menu

2- displayMenu.sh

contains only `displayMenu` function that's used to display the main menu and receive user choice then call the appropriate functions

3- basic_controller.sh

contains the following functions of first five basic options

```
service apache2 status  
install_apache_fn  
remove_apache_fn  
start_apache_fn  
stop_apache_fn
```

4- Authen_controller.sh

display the authentication menu and a function for each option as following

```
authenticate_vh_fn  
restrict_fn  
unrestrict_fn
```

it also contains checks if user try to authenticate already restricted website or choose none existing VH name.

5- VH_menu.sh

it has the administration menu for virtual hosts and also contains the check operations for the existence of a VH.

6- VH_controller.sh

it has the virtual host operation functions called by the VH_menu.sh

```
disable_vh_fn  
enable_vh_fn  
create_vh_fn  
delete_vh_fn
```

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