How website blocker works

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Importing Libraries: The script starts by importing the platform module to identify the operating system.

Defining Hosts File Path: It then sets the path to the hosts file based on the operating system. For Windows, it uses C:\Windows\System32\drivers\etc\hosts, and for other systems, it uses /etc/hosts.

List of Blocked Websites: The script maintains a list named blocked_websites containing URLs that need to be blocked, such as Facebook, Twitter, and Instagram.

Block Websites Function (block_websites()): This function opens the hosts file in read-write mode ('r+'). It reads the current content of the file and checks if each website in the blocked_websites list is already present in the file. If not, it adds an entry in the format 127.0.0.1 www.website.com to redirect these sites to the localhost IP (127.0.0.1). It then notifies whether each website has been successfully blocked or if it's already blocked.

Unblock Websites Function (Unblock_websites()): This function opens the hosts file in read mode ('r'). It reads all lines of the file and writes back those lines that do not contain any of the blocked websites. This effectively removes the entries for these websites from the hosts file, effectively unblocking them.

Execution:

The script is set to unblock websites by default. It has unblock_websites() function called and block_websites() function commented out.

To block websites, you would comment out the unblock_websites() line and uncomment the block_websites() line. This would add entries for the specified websites into the hosts file.

Remember, modifying system files like the hosts file often requires elevated privileges, especially on Windows systems.

About Error: Permission denied error

The error you're encountering, [Errno 13] Permission denied, suggests that your script doesn't have the necessary permissions to modify the hosts file. On Windows systems, modifying the hosts file typically requires elevated privileges, even if you're running the script as an administrator.

To resolve this:

Run as Administrator: Try running the script with elevated privileges. Right-click on your script or command prompt and select "Run as Administrator."

Adjust File Permissions: If you continue to face issues, check the permissions of the hosts file. Ensure your user account has the necessary permissions to read and write to this file. Sometimes, the file is set to read-only, which prevents modifications.

Modify Hosts File Manually: Alternatively, you can open the hosts file (C:\Windows\System32\drivers\etc\hosts) in a text editor with admin rights and manually add or remove entries. Be cautious while doing this to avoid disrupting system functionality.

To edit the hosts file on Windows with administrative privileges, you can do the following:

Manually using Notepad or Text Editor:

Right-click on your text editor (e.g., Notepad) and select "Run as administrator."

Then, open the hosts file (C:\Windows\System32\drivers\etc\hosts) using this elevated instance of the text editor.

Make your modifications and save the file.

Command Prompt with Elevated Privileges:

Open Command Prompt as an administrator.

Type notepad C:\Windows\System32\drivers\etc\hosts and press Enter. This opens the hosts file in Notepad with administrative rights.

Make the necessary changes and save the file.

Using PowerShell:

Open PowerShell as an administrator.

Execute the command notepad C:\Windows\System32\drivers\etc\hosts. This will open the hosts file in Notepad with elevated privileges.