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<u>REPORT</u>

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INTRODUCTION: Website blockers are software programs that are used to block any websites on the internet and prevent us from accessing them. They are most widely used as browser extensions that "Blacklist" websites for you so that you cannot see the results from those websites. But here, we are going to create a program that blocks websites and you cannot access those blocked websites. Well, now that you have enough knowledge required for the python website blocker project, let us tell you how it works.

PURPOSE: The purpose of this project is to block or unblock website using IP address. The objective of Website Blocker python project is to block the given websites from any device. This project will help the user to stay away from their distraction by blocking websites from their device so that they cannot open them.

MODULES: Website blockers are software programs that are used to block any websites on the internet and prevent us from accessing them. They are most widely used as browser extensions that "Blacklist" websites for you so that you cannot see the results from those websites. But here, we are going to create a program that blocks websites and you cannot access those blocked websites. Well, now that you have enough knowledge required for the python website blocker project, let us tell you how it works.

PROJECT FILE STRUCTURE: blocked_websites.txt – A text file we will create that contains a list of all the blocked websites, something we will use while unblocking blocked websites

hosts (OS file) – An operating system file that maps IP addresses to domain names, before letting the computer go to the domain name servers.

main.py – The source code Python file.

STEPS TO DEVELOP PYTHON WEBSITE BLOCKER:

Here are all the steps that you will have to do to create this project.

1)Importing all the necessary libraries.

2)Setting the hosts file location and localhost address for the project.

3)Creating a master GUI window and placing all its components.

4)Creating a block function for the Toplevel widget to block websites.

5)Creating a nested block websites in the block function, which will do the processing and eventually block the desired website.

6)Creating an unblock function for the Toplevel widget to unblock websites.

7)Creating a nested unblock websites in the unblock function, which will process the desired website and unblock it.

WORKING: Every domain name has its own IP address and when you type that domain name on your browser, it takes you to its IP address, and vice versa.

For example, If you type 142.250.77.110 on your URL bar, it will take you to google.com, because that is Google. com's IP address.

WEB APPLICATIONS: Well, now that we have enough knowledge required for the python website blocker project, let us tell you how it works.

The hosts file, as you know, maps addresses to domains; and when you type 127.0.0.1 on the URL bar on your browser, it always refuses to connect (as on local machine

usually we don't run a web server). So, to block websites, we will map your desired websites to the localhost address 127.0.0.1 and add that to the hosts file. Similarly, to unblock the website, we will remove that line from the hosts file.

COMPUTER NETWORKING:

localhost – It is a set of hostnames that refer to your local computer to access the network services being used by your computer. These hostnames usually start with '127'.

hostname – It is an IP address (not specifically on your computer) that is used to identify your computer during electronic communications.

localhost 127.0.0.1 – It is a localhost address called the "Internet Loopback Protocol". This address is used to establish an IP connection to the same machine or computer being used by the end-user.

hosts file – It is an operating system file that is used to map a connection between an IP address (localhost in our case) and a domain name, before actually going to the domain name servers. It is a .txt file that contains a mapping of the IP addresses and domain names. It no longer has an extension but can still only be edited as a .txt file. It has different locations on different OSs, i.e., it has a different location on Windows and Linux, but the same location on MAC and Linux.

REFERENCE: 1) [Website Blocker Using Python (tutorialspoint.com)](#)

2) [Website Blocker Using Python - GeeksforGeeks](#)