FIIT

**FUTURA INNOVATIVE INFORMATION TECHNOLOGY**

THE PROJECT WAS RELATED TO THE COURSE OF

**PYTHON PROGARAMMING**

ON THE TOPIC OF

**WEBSITE BLOCKER WITH PASSWORD PROTECTION**

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**ABSTRACT**

This project presents a python-based website blocker designed to enhance productivity and parental control. The application allows user to block website using administrator privileges and password protection. This Python script allows you to block or unblock websites by modifying the system's hosts file, which is used to map domain names to IP addresses. This project aims to help users manage internet usage efficiently.

**INTRODUCTION**

This Python script provides a simple way to block or unblock websites by modifying the system's hosts file. The hosts file is used to map domain names to IP addresses, and by redirecting specific websites to the local IP address (127.0.0.1), this script prevents access to those sites. It is a useful tool for individuals who want to block distracting websites for productivity, implement parental controls, or increase security by restricting access to certain online platforms.The script works across both Windows and Unix-based operating systems, automatically detecting the correct path to the hosts file depending on the OS. Users can block websites by adding their domain names to the hosts file, ensuring those websites are redirected to the local machine. To unblock websites, users must enter a password, ensuring only authorized users can reverse the changes. The script includes error handling to manage common issues like permission errors, which can occur when attempting to modify system files. The program runs interactively, allowing users to choose between blocking websites, unblocking them, or exiting the program. This script offers a simple and effective way to manage website access directly through the system's configuration.

**SOURCE CODE**

import os

# Determine the host file path based on the operating system

host\_path = "C:\\Windows\\System32\\drivers\\etc\\hosts" if os.name == "nt" else "/etc/hosts"

redirect\_ip = "127.0.0.1"

blocked\_websites = ["www.facebook.com"]

password = "priya2003"

def block\_websites():

try:

with open(host\_path, "r+") as file:

content = file.read()

for site in blocked\_websites:

if site not in content:

file.write(f"{redirect\_ip} {site}\n")

print(f"Successfully blocked: {site}")

else:

print(f"{site} is already blocked.")

except PermissionError:

print("Permission denied: Unable to modify the hosts file. Please run the script with administrative privileges.")

except Exception as e:

print(f"An error occurred while blocking websites: {e}")

def unblock\_websites():

entered\_password = input("Enter password to unblock websites: ")

if entered\_password == password:

try:

with open(host\_path, "r") as file:

lines = file.readlines()

with open(host\_path, "w") as file:

for line in lines:

if not any(site in line for site in blocked\_websites):

file.write(line)

print("Successfully unblocked specified websites.")

except PermissionError:

print("Permission denied: Unable to modify the hosts file. Please run the script with administrative privileges.")

except Exception as e:

print(f"An error occurred while unblocking websites: {e}")

else:

print("Incorrect password! Access denied.")

def main():

while True:

choice = input("Enter 'block' to block websites, 'unblock' to unblock websites, or 'exit' to quit: ").strip().lower()

print(f"users input:{choice}")

if choice == "block":

block\_websites()

elif choice == "unblock":

unblock\_websites()

elif choice == "exit":

print("Exiting the program.")

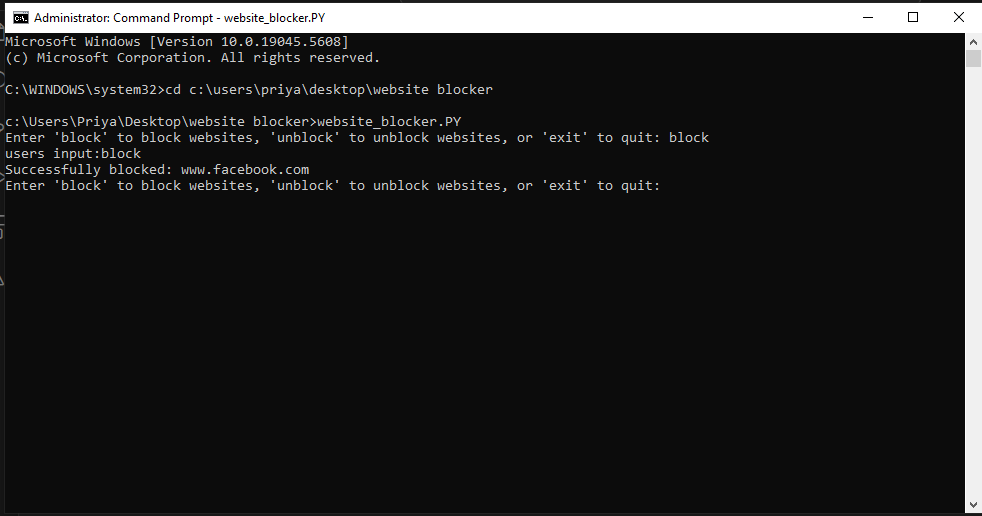
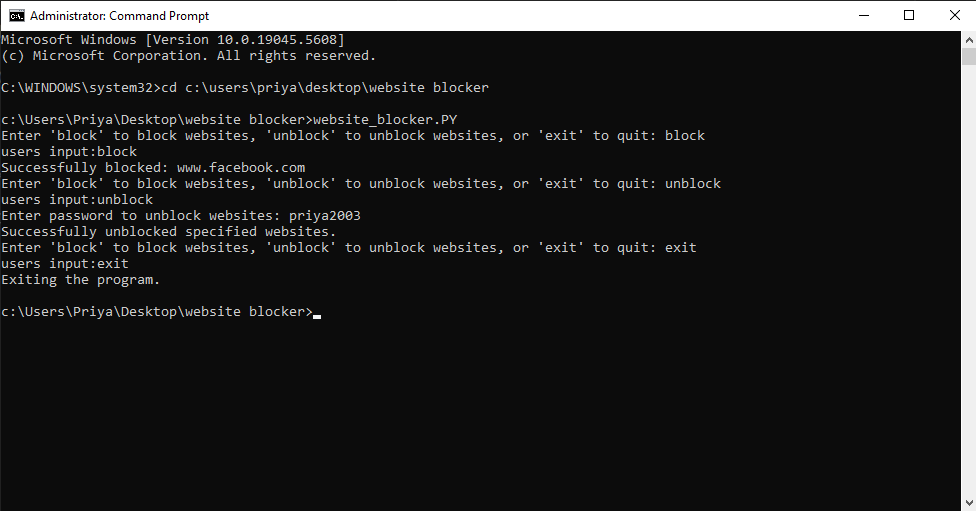
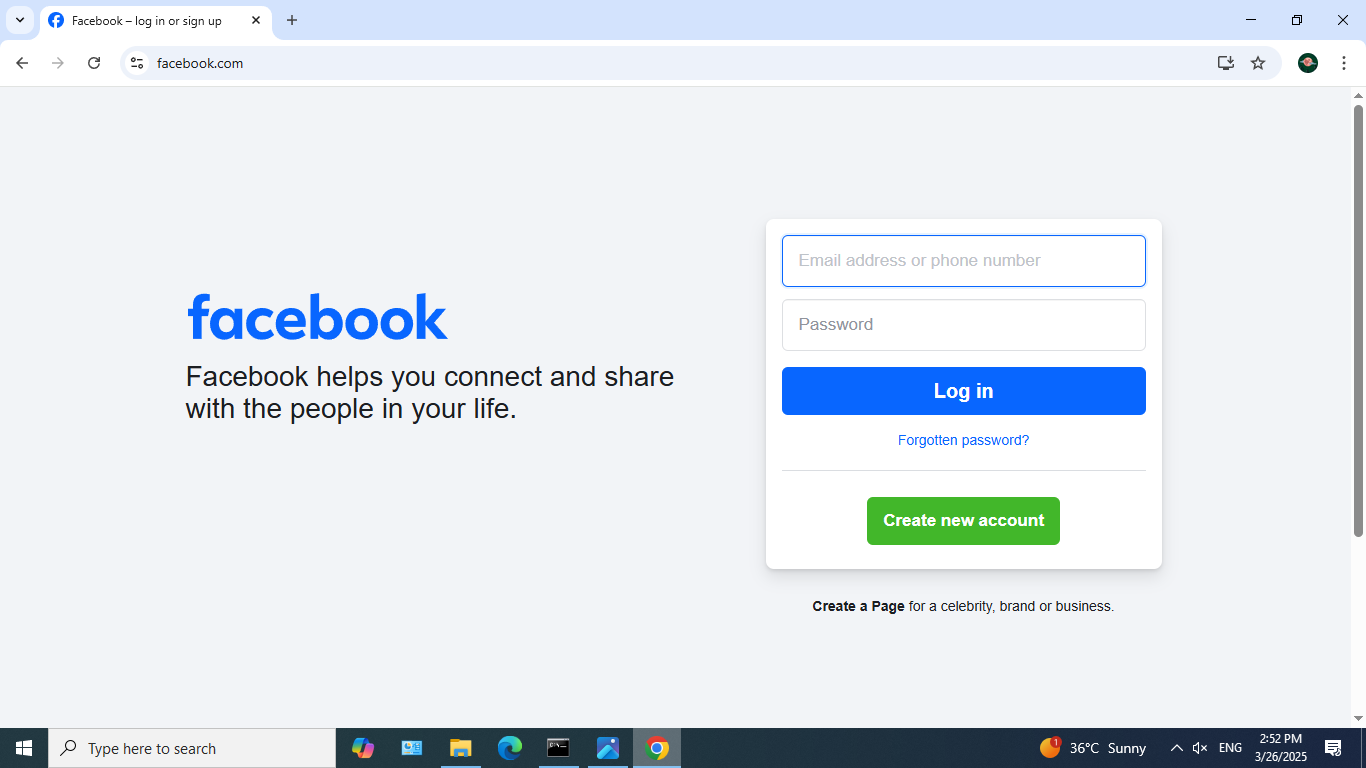
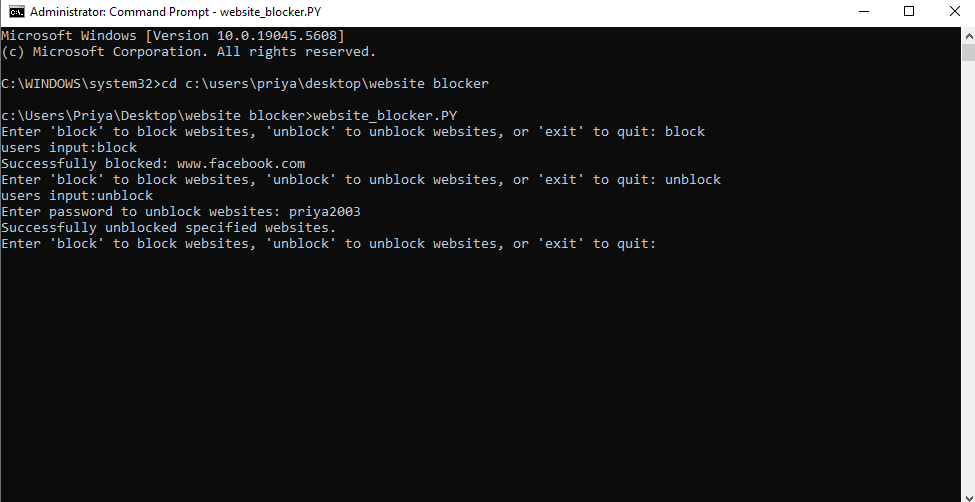
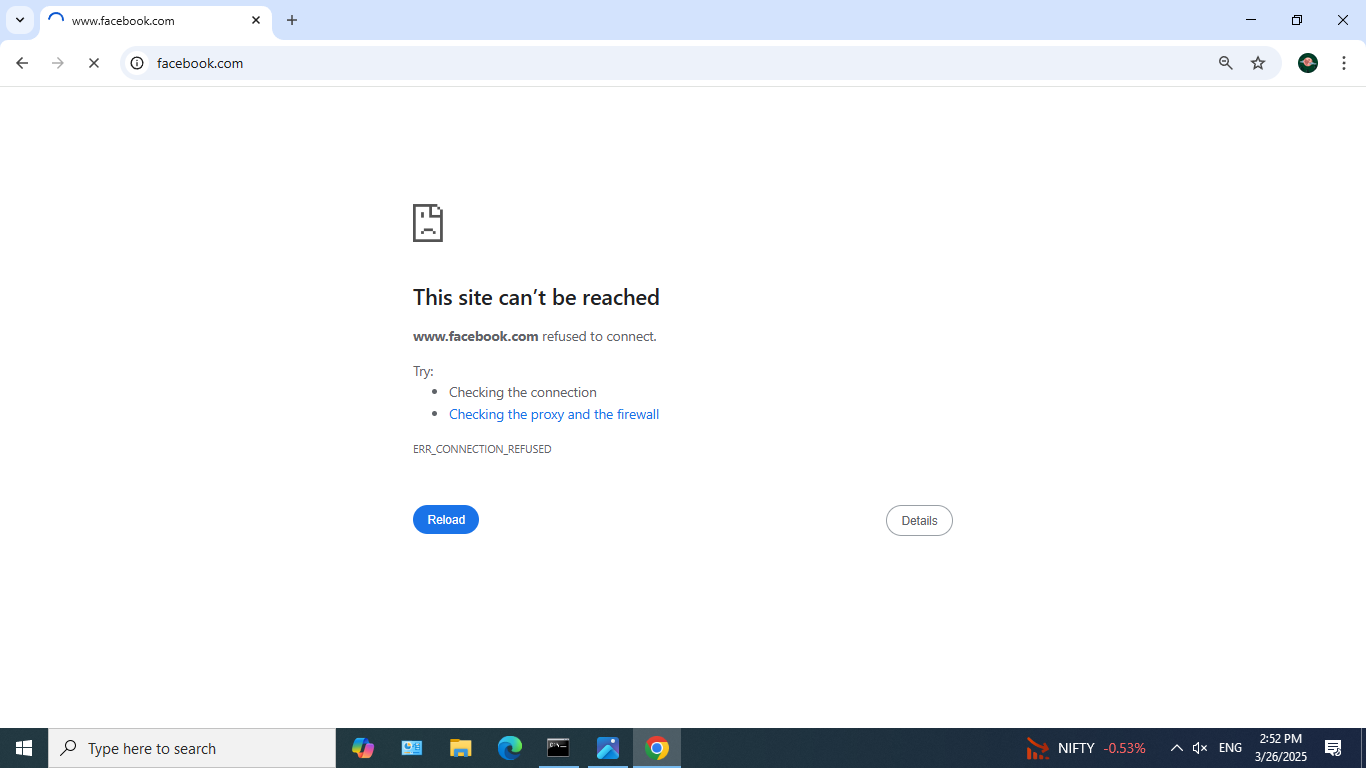
break

else:

print("Invalid input. Please enter 'block', 'unblock', or 'exit'.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

****

**CONCLUSION**

In conclusion, this Python script provides an efficient and straightforward solution for managing website access by modifying the system’s hosts file. It enables users to block distracting or unwanted websites by redirecting them to the local machine and offers a password-protected mechanism to unblock them, ensuring only authorized users can make changes. The script works seamlessly across different operating systems, with error handling in place to manage permission issues and other exceptions. Its interactive command-line interface makes it easy to use, making it an effective tool for individuals seeking to control their online environment for reasons such as productivity, security, or parental control.

**THANK YOU**