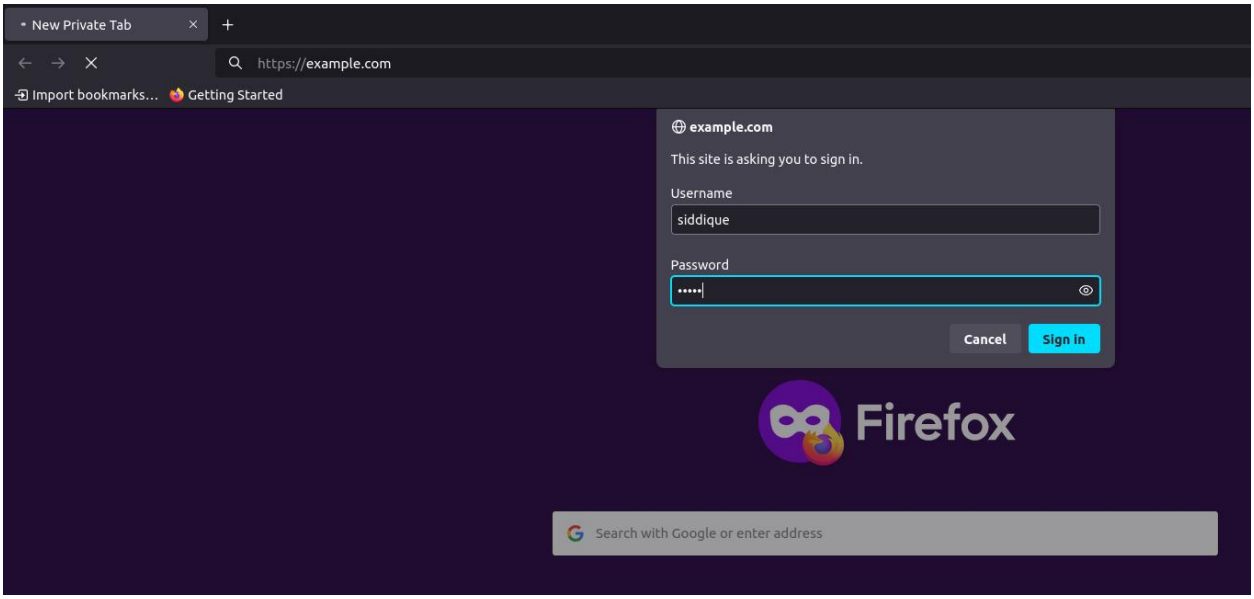
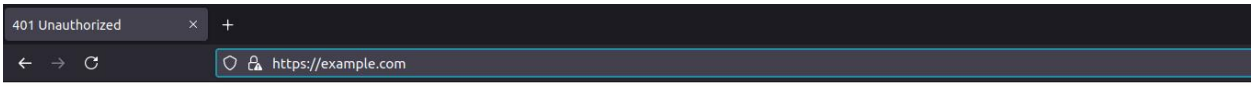
2019831019
Abu Bakar Siddique
LAB REPORT





Unauthorized

This server could not verify that you are authorized to access the document requested. Either you supplied the wrong credentials (e.g., bad password), or your brows

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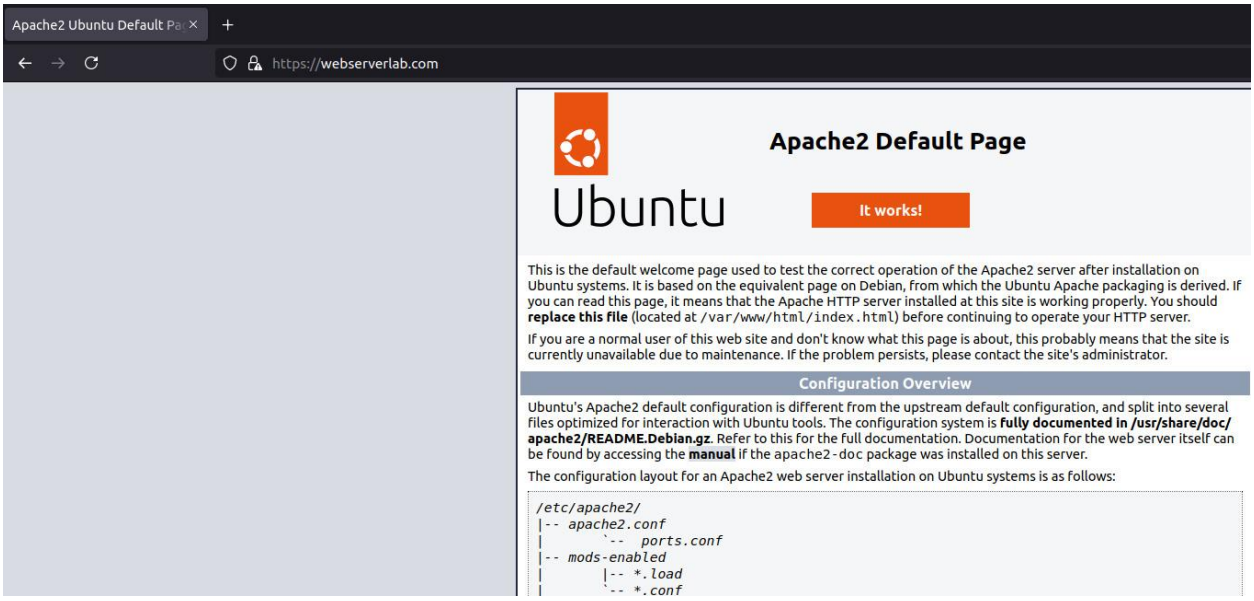
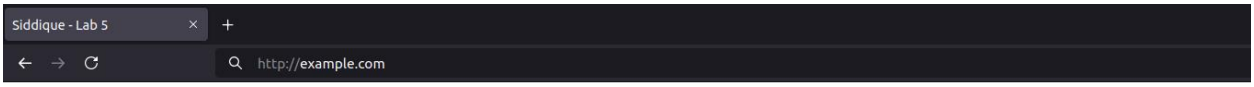
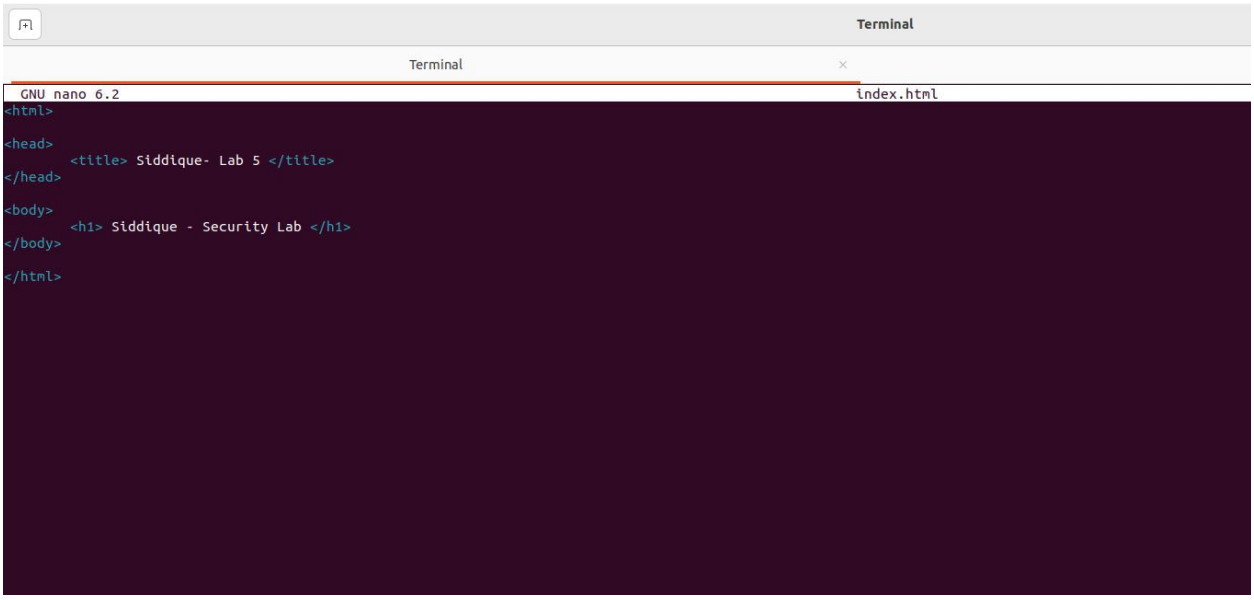
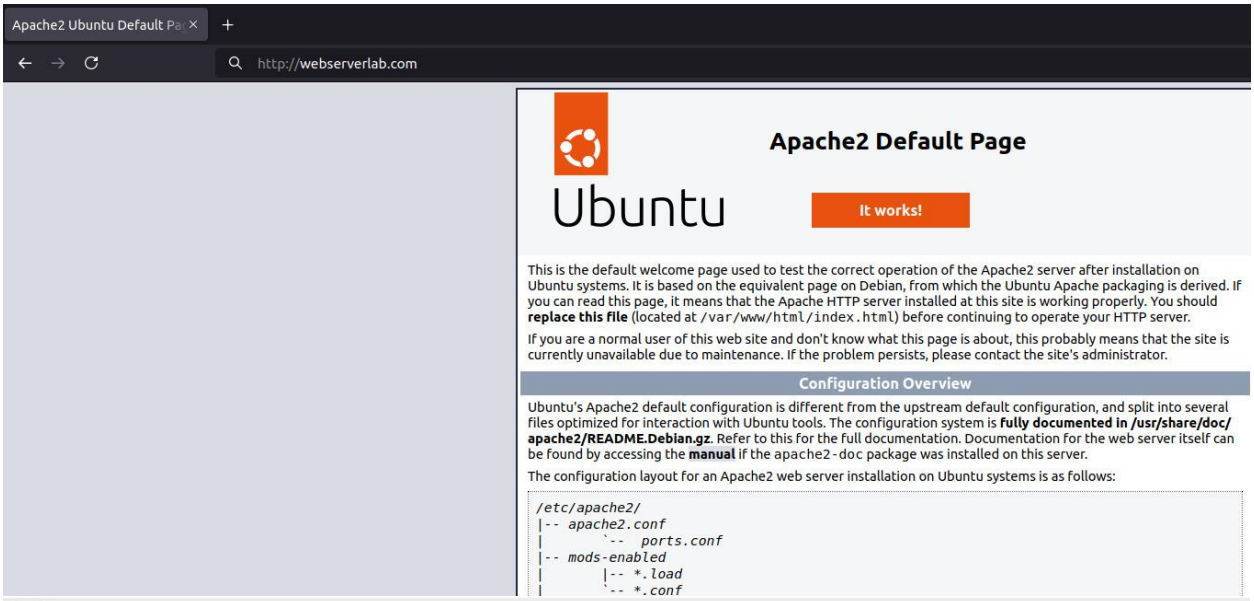
Apache/2.4.52 (Ubuntu) Server at example.com Port 443





Siddique Task 5





Terminal

Terminal

```
 GNU nano 6.2                                                example.com.conf
<VirtualHost _default_:443>
                ServerAdmin admin@example.com
                ServerName example.com

                DocumentRoot /var/www/example.com/html

                ErrorLog ${APACHE_LOG_DIR}/error.log
                CustomLog ${APACHE_LOG_DIR}/access.log combined

                SSLEngine on

                #   A self-signed (snakeoil) certificate can be created by installing
                #   the ssl-cert package. See
                #   /usr/share/doc/apache2/README.Debian.gz for more info.
                #   If both key and certificate are stored in the same file, only the
                #   SSLCertificateFile directive is needed.
                SSLCertificateFile      /etc/ssl/certs/apache-selfsigned.crt
                SSLCertificateKeyFile /etc/ssl/private/apache-selfsigned.key

                #   Server Certificate Chain:
                #   Point SSLCertificateChainFile at a file containing the
```

Terminal

Terminal

```
 GNU nano 6.2                                                example.com.conf
                #       the standard Auth/DBMAuth methods can be used for access control.  The
                #       user name is the `one line' version of the client's X.509 certificate.
                #       Note that no password is obtained from the user. Every entry in the user
                #       file needs this password: `xxj31ZMTZzkVA'.
                #   o ExportCertData:
                #       This exports two additional environment variables: SSL_CLIENT_CERT and
                #       SSL_SERVER_CERT. These contain the PEM-encoded certificates of the
                #       server (always existing) and the client (only existing when client
                #       authentication is used). This can be used to import the certifica

                <Directory "/var/www/example.com/html">
                AuthType Basic
                AuthName "Restricted Content"
                AuthUserFile /etc/apache2/.htpasswd
                Require valid-user
                </Directory>


                <FilesMatch "\.(cgi|shtml|phtml|php)$">
                                SSLOptions +StdEnvVars
                </FilesMatch>
                <Directory /usr/lib/cgi-bin>
                                SSLOptions +StdEnvVars
                </Directory>

                #   SSL Protocol Adjustments:
                #   The safe and default but still SSL/TLS standard compliant shutdown
```

Terminal

```
  GNU nano 6.2
<VirtualHost *:80>
    ServerAdmin webmaster@example.com
    ServerName example.com
    ServerAlias www.example.com

    DocumentRoot /var/www/example.com/html

    # Redirect all traffic to HTTPS
    Redirect permanent / https://example.com/

    ErrorLog ${APACHE_LOG_DIR}/example.com_error.log
    CustomLog ${APACHE_LOG_DIR}/example.com_access.log combined
</VirtualHost>
```

Terminal

```
$ sudo htpasswd -c /etc/apache2/.htpasswd siddique
New password:
Re-type new password:
Adding password for user siddique
$ cat /etc/apache2/.htpasswd
siddique:$apr1$lJAZTe2v$ir/djovuGmi8Aj6GXV6mX1
$
```

```
$ cd /var
$ ls
backups  cache  crash  lib  local  lock  log  mail  metrics  opt  run  snap  spool  tmp  www
$ cd www
$ ls
example.com  html
$ cd example.com
$ ls
html
$ cd html
$ ls
index.html
$ susdo nano index.html
sh: 219: susdo: not found
$ sudo nano index.html
$ sudo nano index.html
$ cd /etc
$ ls
acpi                    ca-certificates.conf          emacs         gss             kerneloops.conf  mailcap             opt           rc1.d         snmp                ufw
adduser.conf            ca-certificates.conf.dpkg-old environment   gtk-2.0         ldap             mailcap.order       os-release    rc2.d         speech-dispatcher   update-manager
alsa                    chatscripts                   environment.d gtk-3.0         ld.so.cache      manpath.config      PackageKit    rc3.d         ssh                 update-motd.d
alternatives            console-setup                 ethertypes    hdparm.conf     ld.so.conf       mecabrc             pam.conf      rc4.d         ssl                 update-notifier
anacrontab              cracklib                      firebird      host.conf       ld.so.conf.d     mime.types          pam.d         rc5.d         subgid              UPower
apache2                 cron.d                        firefox       hostid          legal            mke2fs.conf         papersize     rc6.d         subgid-             usb_modeswitch.conf
apg.conf                cron.daily                    fonts         hostname        libao.conf       ModemManager        passwd        rcS.d         subuid              usb_modeswitch.d
apm                     cron.hourly                   fprintd.conf  hosts           libaudit.conf    modprobe.d          passwd-       resolv.conf   subuid-             vim
apparmor                cron.monthly                  fstab         hosts.allow     libblockdev      modules             pcmcia        rmt           sudo.conf           vtrgb
apparmor.d              crontab                       fuse.conf     hosts.deny      libnl-3          modules-load.d      perl          rpc           sudoers             vulkan
apport                  cron.weekly                   fwupd         hp              libpaper.d       mongod.conf         pki           rsyslog.conf  sudoers.d           wgetrc
appstream.conf          cups                          gai.conf      ifplugd         libreoffice      mtab                pm            rsyslog.d     sudo_logsrvd.conf   whoopsie
apt                     cupshelpers                   gdb           init            lighttpd         mysql               pnm2ppa.conf  rygel.conf    sysctl.conf         wpa_supplicant
avahi                   dbus-1                        gdm3          init.d          locale.alias     nanorc              polkit-1      sane.d        sysctl.d            X11
bash.bashrc             dconf                         geoclue       initramfs-tools locale.gen       netconfig           ppp           security      systemd             xattr.conf
bash_completion         debconf.conf                  ghostscript   inputrc         localtime        netplan             preload.conf  selinux       terminfo            xdg
bash_completion.d       debian_version                glvnd         insserv.conf.d  logcheck         network             printcap      sensors3.conf thermald            xml
bindresvport.blacklist  default                       gnome         ipp-usb         login.defs       networkd-dispatcher profile       sensors.d     thunderbird         zsh_command_not_found
binfmt.d                deluser.conf                  groff         iproute2        logrotate.conf   NetworkManager      profile.d     services      timezone
bluetooth               depmod.d                      group         issue           logrotate.d      networks            protocols     sgml          tmpfiles.d
brlapi.key              dhcp                          group-        issue.net       lsb-release      newt                pulse         shadow        ubuntu-advantage
brltty                  dictionaries-common           grub.d        java-11-openjdk machine-id     nftables.conf       python3       shadow-       ucf.conf
brltty.conf             dpkg                          gshadow       kernel          magic            nsswitch.conf       python3.10    shells        udev
ca-certificates         e2scrub.conf                  gshadow-      kernel-img.conf magic.mime       openvpn             rc0.d         skel          udisks2
$ cd apache2
$ ls
apache2.conf  conf-available  conf-enabled  envvars  magic  mods-available  mods-enabled  ports.conf  sites-available  sites-enabled
$ cd sites-enabled
$ ls
default-ssl.conf  example.com.conf
$ sudo nano example.com.conf
$ sudo nano default-ssl.conf
$
```

```
  GNU nano 6.2                                                                default-ssl.conf
<IfModule mod_ssl.c>
        <VirtualHost _default_:443>
                ServerAdmin admin@webserverlab.com
                ServerName webserverlab.com

                DocumentRoot /var/www/html

                # Available loglevels: trace8, ..., trace1, debug, info, notice, warn,
                # error, crit, alert, emerg.
                # It is also possible to configure the loglevel for particular
                # modules, e.g.
                #LogLevel info ssl:warn

                ErrorLog ${APACHE_LOG_DIR}/error.log
                CustomLog ${APACHE_LOG_DIR}/access.log combined

                # For most configuration files from conf-available/, which are
                # enabled or disabled at a global level, it is possible to
                # include a line for only one particular virtual host. For example the
                # following line enables the CGI configuration for this host only
                # after it has been globally disabled with "a2disconf".
                #Include conf-available/serve-cgi-bin.conf

                #   SSL Engine Switch:
                #   Enable/Disable SSL for this virtual host.
                SSLEngine on

                #   A self-signed (snakeoil) certificate can be created by installing
                #   the ssl-cert package. See
                #   /usr/share/doc/apache2/README.Debian.gz for more info.
                #   If both key and certificate are stored in the same file, only the
                #   SSLCertificateFile directive is needed.
                SSLCertificateFile      /etc/ssl/certs/apache-selfsigned.crt
                SSLCertificateKeyFile /etc/ssl/private/apache-selfsigned.key

                #   Server Certificate Chain:
                #   Point SSLCertificateChainFile at a file containing the
```