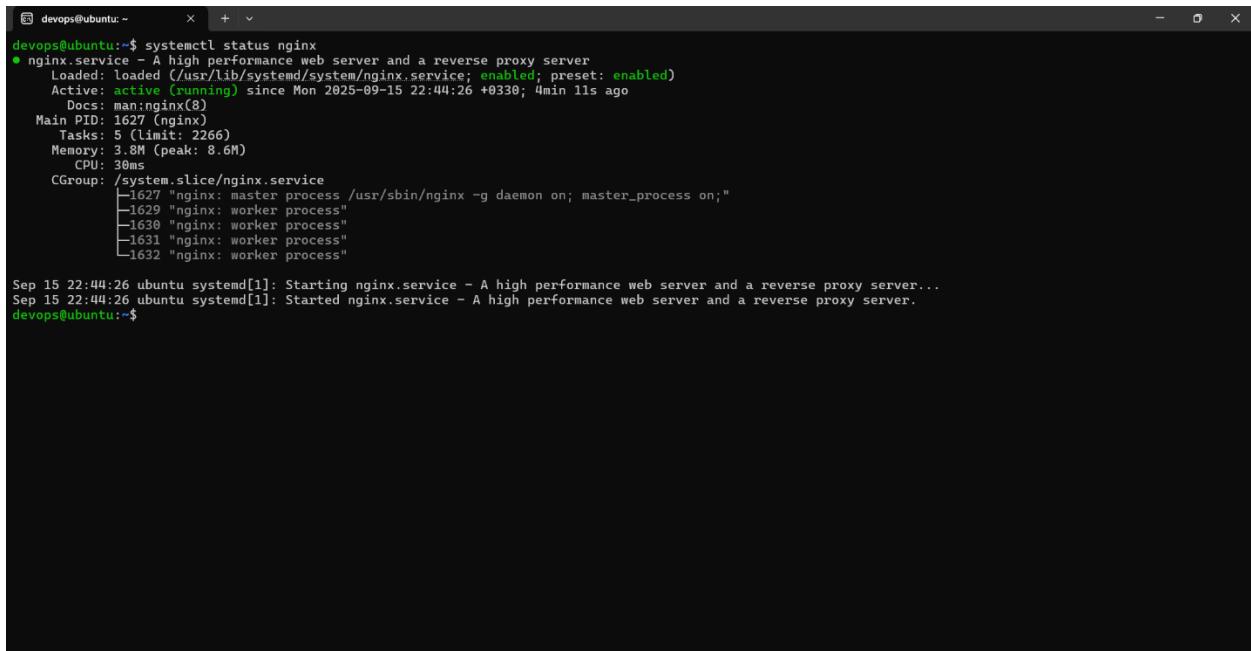


به نام خدا

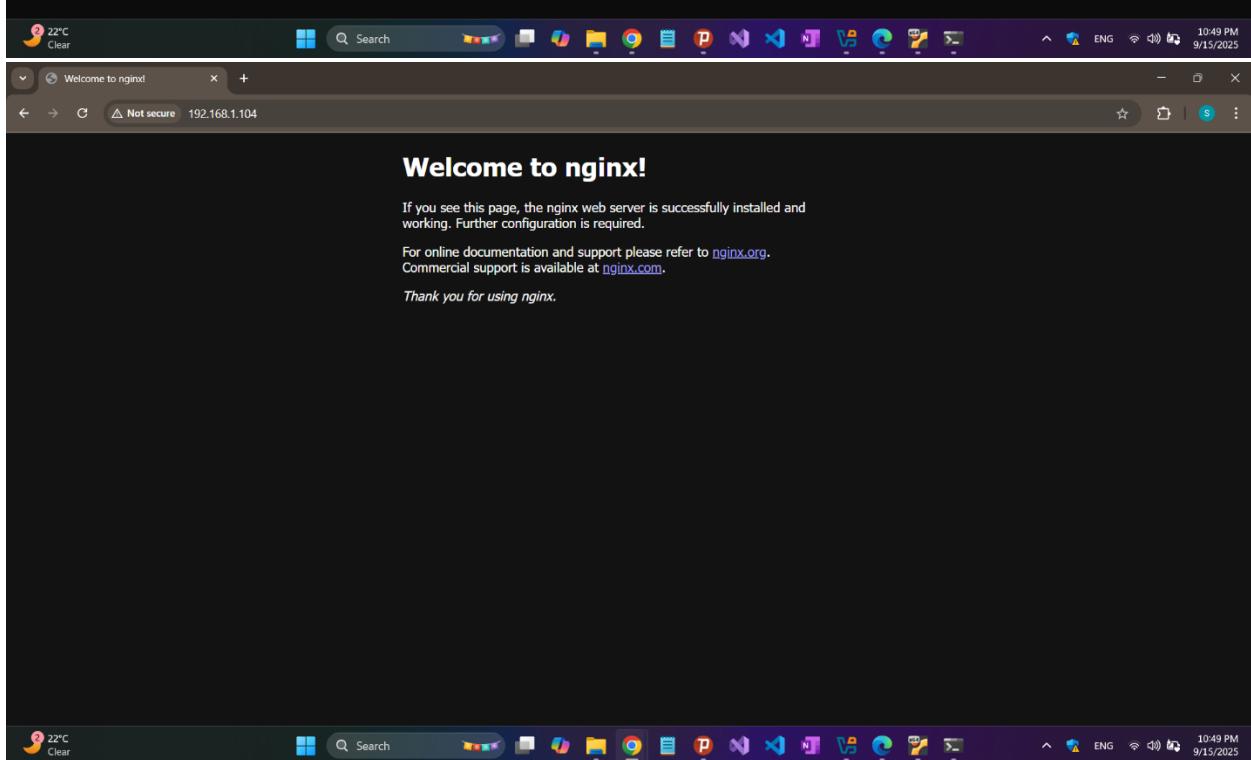
شادی خوانساری - تسک چهارم

تمرین اول



```
devops@ubuntu:~$ systemctl status nginx
● nginx.service - A high performance web server and a reverse proxy server
  Loaded: loaded (/usr/lib/systemd/system/nginx.service; enabled; preset: enabled)
  Active: active (running) since Mon 2025-09-15 22:44:26 +0330; 4min 11s ago
    Docs: man:nginx(8)
Main PID: 1627 (nginx)
  Tasks: 5 (limit: 2266)
    Memory: 3.8M (peak: 8.6M)
      CPU: 30ms
     CGroup: /system.slice/nginx.service
             └─1627 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"

Sep 15 22:44:26 ubuntu systemd[1]: Starting nginx.service - A high performance web server and a reverse proxy server...
Sep 15 22:44:26 ubuntu systemd[1]: Started nginx.service - A high performance web server and a reverse proxy server.
devops@ubuntu:~$
```



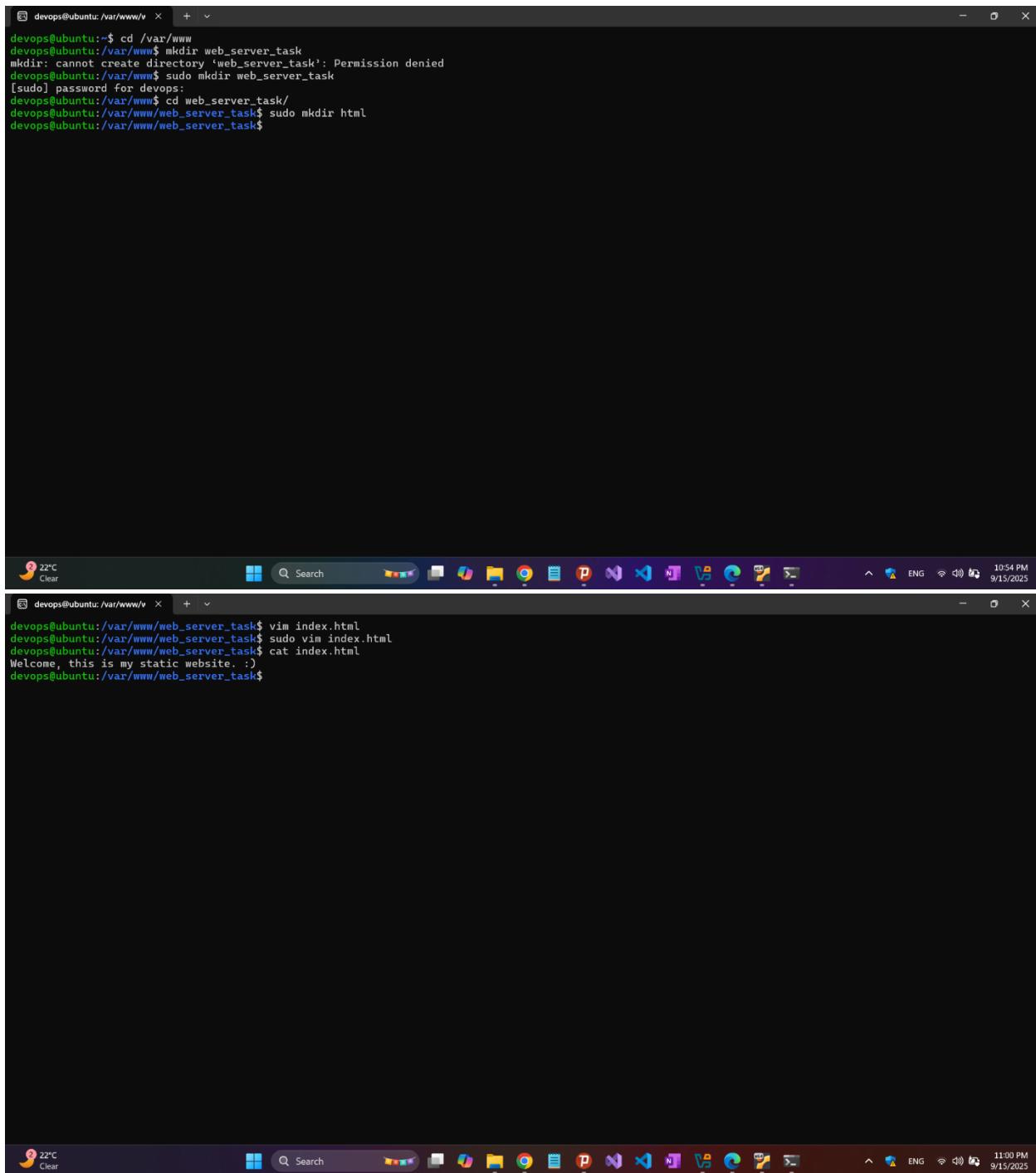
Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

تمرين دوم



```
devops@ubuntu:~$ cd /var/www
devops@ubuntu:/var/www$ mkdir web_server_task
mkdir: cannot create directory 'web_server_task': Permission denied
devops@ubuntu:/var/www$ sudo mkdir web_server_task
[sudo] password for devops:
devops@ubuntu:/var/www$ cd web_server_task/
devops@ubuntu:/var/www/web_server_task$ sudo mkdir html
devops@ubuntu:/var/www/web_server_task$
```



```
devops@ubuntu:/var/www/web_server_task$ vim index.html
devops@ubuntu:/var/www/web_server_task$ sudo vim index.html
devops@ubuntu:/var/www/web_server_task$ cat index.html
Welcome, this is my static website. :)
devops@ubuntu:/var/www/web_server_task$
```



```
devops@ubuntu:/var/www/web_server_task$
```

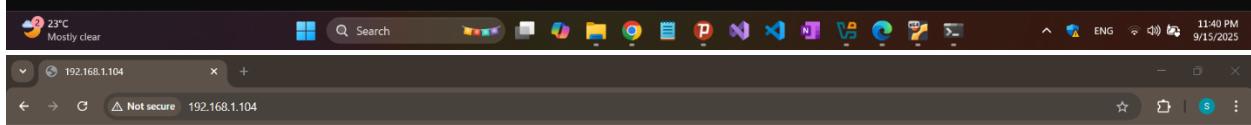
```
devops@ubuntu: /etc/nginx/ ~ + - x
## You should look at the following URL's in order to grasp a solid understanding
# of Nginx configuration files in order to fully unleash the power of Nginx.
# https://www.nginx.com/resources/wiki/start/
# https://www.nginx.com/resources/wiki/start/topics/tutorials/config_pitfalls/
# https://wiki.debian.org/Nginx/DirectoryStructure
#
# In most cases, administrators will remove this file from sites-enabled/ and
# leave it as reference inside of sites-available where it will continue to be
# updated by the nginx packaging team.
#
# This file will automatically load configuration files provided by other
# applications, such as Drupal or Wordpress. These applications will be made
# available underneath a path with that package name, such as /drupal8.
#
# Please see /usr/share/doc/nginx-doc/examples/ for more detailed examples.
## Default server configuration
#
server {
    listen 80 default_server;
    listen [::]:80 default_server;

    # SSL configuration
    #
    # listen 443 ssl default_server;
    # listen [::]:443 ssl default_server;
    #
    # Note: You should disable gzip for SSL traffic.
    # See: https://bugs.debian.org/773332
    #
    # Read up on ssl_ciphers to ensure a secure configuration.
    # See: https://bugs.debian.org/765782
    #
    # Self signed certs generated by the ssl-cert package
    # Don't use them in a production server!
    #
    # include snippets/snakeoil.conf;
}

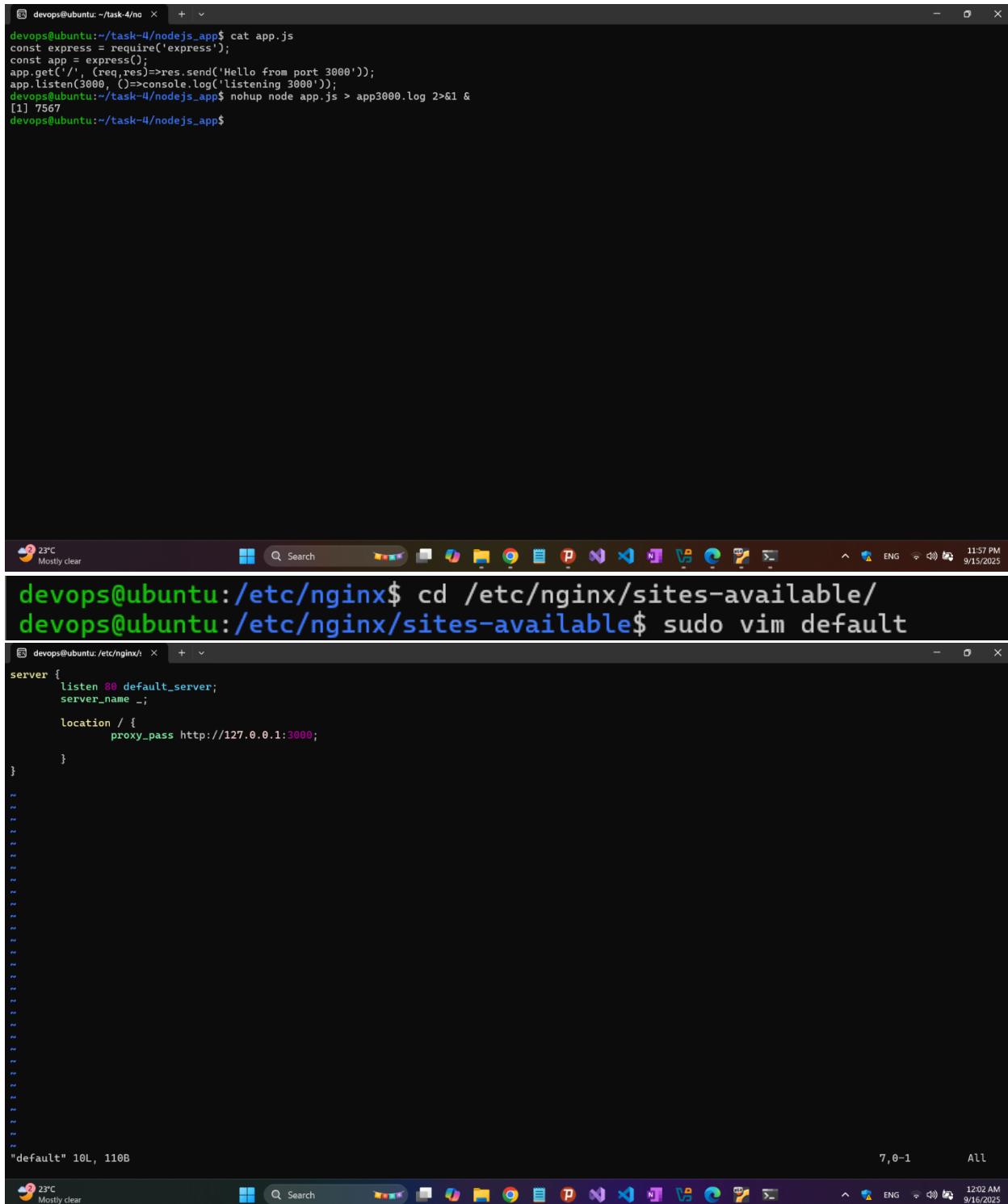
"default" 91L, 2412B
1,1 Top

23°C Mostly clear 11:14 PM 9/15/2025
devops@ubuntu: /etc/nginx/ ~ + - x
server {
    listen 80 default_server;
    location / {
        root /var/www/web_server_task/html;
    }
}
"default" 8L, 95B
8,0-1 All
23°C Mostly clear 11:29 PM 9/15/2025
```

```
devops@ubuntu:/var/www/v + 
devops@ubuntu:/var/www/web_server_task/html$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
devops@ubuntu:/var/www/web_server_task/html$ systemctl reload nginx
==== AUTHENTICATING FOR org.freedesktop.systemd1.manage-units ====
Authentication is required to reload 'nginx.service'.
Multiple identities can be used for authentication:
 1. shadi (devops)
 2. ... (admin1)
Choose identity to authenticate as (1-2): 1
Password:
==== AUTHENTICATION COMPLETE ====
devops@ubuntu:/var/www/web_server_task/html$
```



تمرين سوم



devops@ubuntu:~/task-4/no ~

```
devops@ubuntu:~/task-4/no$ cat app.js
const express = require('express');
const app = express();
app.get('/', (req,res)=>res.send('Hello from port 3000'));
app.listen(3000, ()=>console.log('listening 3000'));
devops@ubuntu:~/task-4/no$ nohup node app.js > app3000.log 2>&1 &
[1] 7567
devops@ubuntu:~/task-4/no$
```

23°C Mostly clear

Search

11:57 PM 9/15/2025

```
devops@ubuntu:/etc/nginx$ cd /etc/nginx/sites-available/
devops@ubuntu:/etc/nginx/sites-available$ sudo vim default
```

23°C Mostly clear

Search

11:57 PM 9/15/2025

```
server {
    listen 80 default_server;
    server_name _;

    location / {
        proxy_pass http://127.0.0.1:3000;
    }
}
```

"default" 10L, 110B

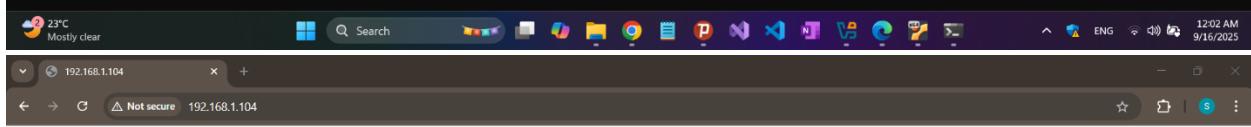
7, 0-1 All

23°C Mostly clear

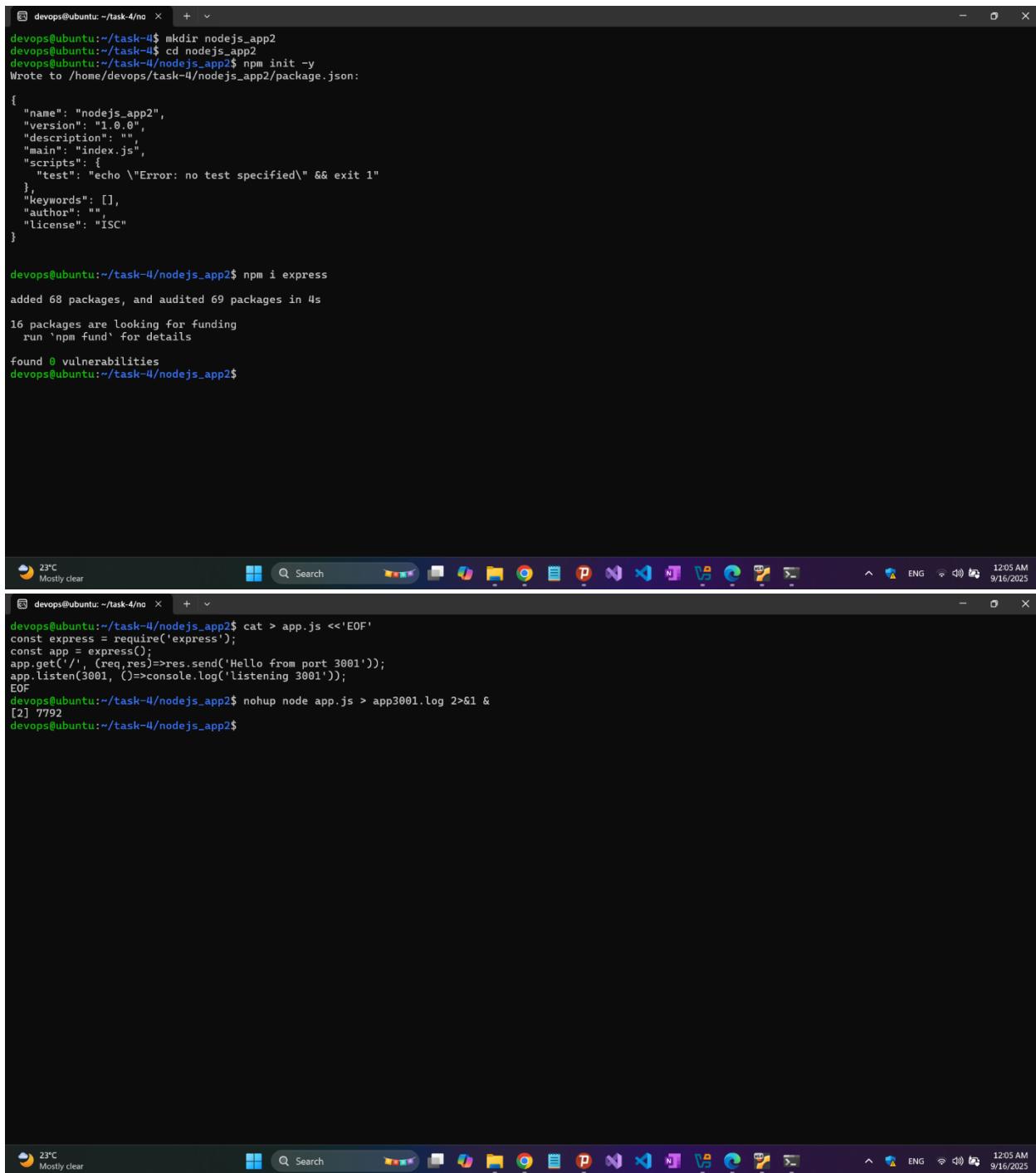
Search

12:02 AM 9/16/2025

```
devops@ubuntu:/etc/nginx/sites-available$ sudo vim default
devops@ubuntu:/etc/nginx/sites-available$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
devops@ubuntu:/etc/nginx/sites-available$ sudo systemctl reload nginx
devops@ubuntu:/etc/nginx/sites-available$
```



تمرین چهارم



```
devops@ubuntu:~/task-4/no ~ + ~
devops@ubuntu:~/task-4$ mkdir nodejs_app2
devops@ubuntu:~/task-4$ cd nodejs_app2
devops@ubuntu:~/task-4/nodejs_app2$ npm init -y
Wrote to /home/devops/task-4/nodejs_app2/package.json:
{
  "name": "nodejs_app2",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "test": "echo \"Error: no test specified\" && exit 1"
  },
  "keywords": [],
  "author": "",
  "license": "ISC"
}

devops@ubuntu:~/task-4/nodejs_app2$ npm i express
added 68 packages, and audited 69 packages in 4s
16 packages are looking for funding
  run `npm fund` for details
found 0 vulnerabilities
devops@ubuntu:~/task-4/nodejs_app2$
```



```
23°C
Mostly clear
Search
12:05 AM
9/16/2025
devops@ubuntu:~/task-4/no ~ + ~
devops@ubuntu:~/task-4/nodejs_app2$ cat > app.js <<'EOF'
const express = require('express');
const app = express();
app.get('/', (req, res) => res.send('Hello from port 3001'));
app.listen(3001, () => console.log('listening 3001'));
EOF
devops@ubuntu:~/task-4/nodejs_app2$ nohup node app.js > app3001.log 2>&1 &
[2] 7792
devops@ubuntu:~/task-4/nodejs_app2$
```



```
23°C
Mostly clear
Search
12:05 AM
9/16/2025
```

```
devops@ubuntu: /etc/nginx/ + - x
upstream lb {
    #least_conn;
    server 127.0.0.1:3080;
    server 127.0.0.1:3001;
}

server {
    listen 80;

    location / {
        proxy_pass http://lb;
    }
}

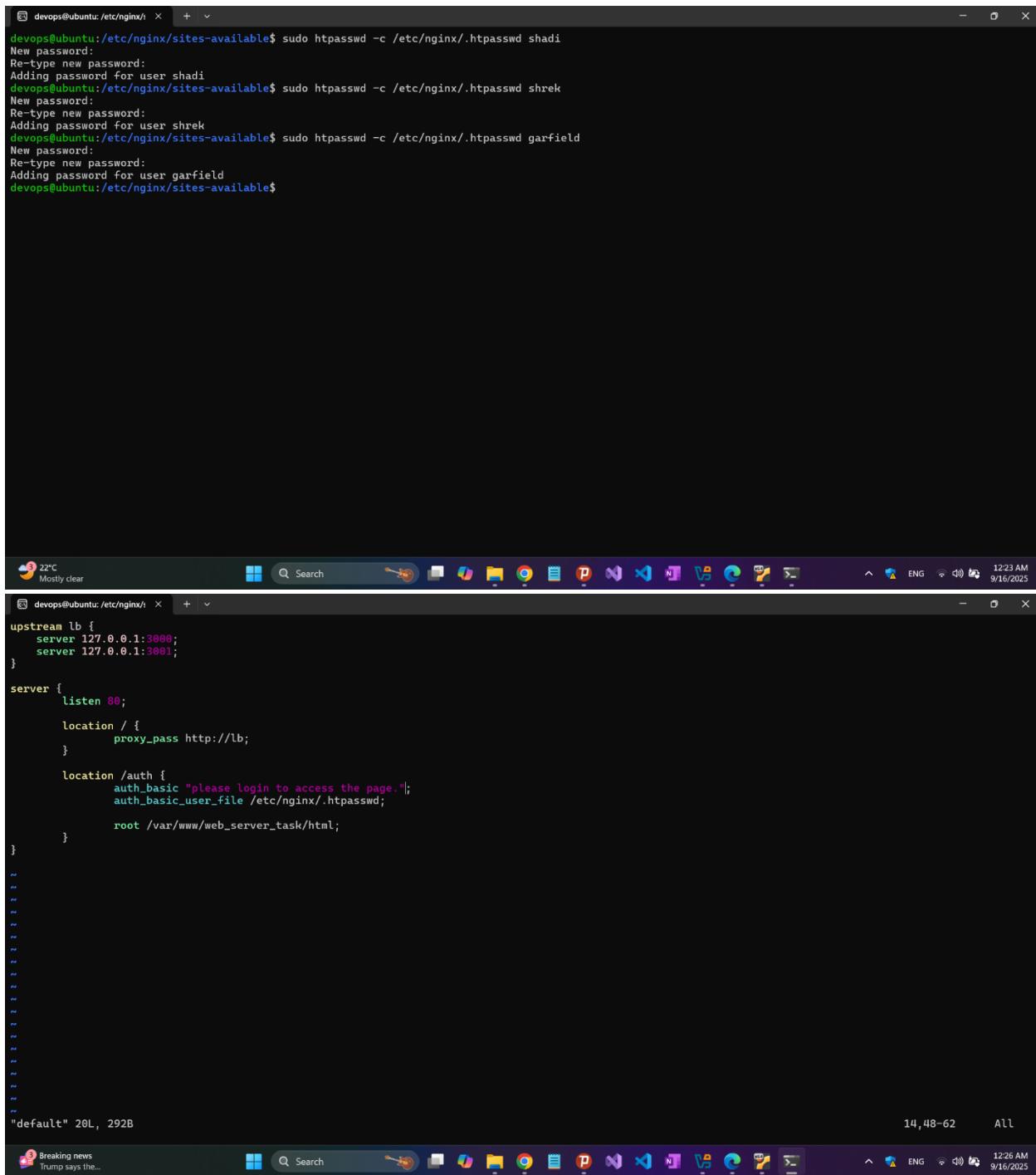
"default" 14L, 154B
11,20-34 All
```

```
devops@ubuntu:/etc/nginx/sites-available$ sudo vim default
devops@ubuntu:/etc/nginx/sites-available$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
devops@ubuntu:/etc/nginx/sites-available$ sudo systemctl reload nginx
devops@ubuntu:/etc/nginx/sites-available$
```

```
devops@ubuntu:/etc/nginx/sites-available$ for i in {1..5}; do curl -s http://localhost; echo; done
Hello from port 3001
Hello from port 3000
Hello from port 3001
Hello from port 3000
Hello from port 3001
devops@ubuntu:/etc/nginx/sites-available$ for i in {1..20}; do curl -s http://localhost; echo; done
Hello from port 3000
Hello from port 3001
devops@ubuntu:/etc/nginx/sites-available$
```



تمرین پنجم



```
devops@ubuntu:/etc/nginx/sites-available$ sudo htpasswd -c /etc/nginx/.htpasswd shadi
New password:
Re-type new password:
Adding password for user shadi
devops@ubuntu:/etc/nginx/sites-available$ sudo htpasswd -c /etc/nginx/.htpasswd shrek
New password:
Re-type new password:
Adding password for user shrek
devops@ubuntu:/etc/nginx/sites-available$ sudo htpasswd -c /etc/nginx/.htpasswd garfield
New password:
Re-type new password:
Adding password for user garfield
devops@ubuntu:/etc/nginx/sites-available$
```

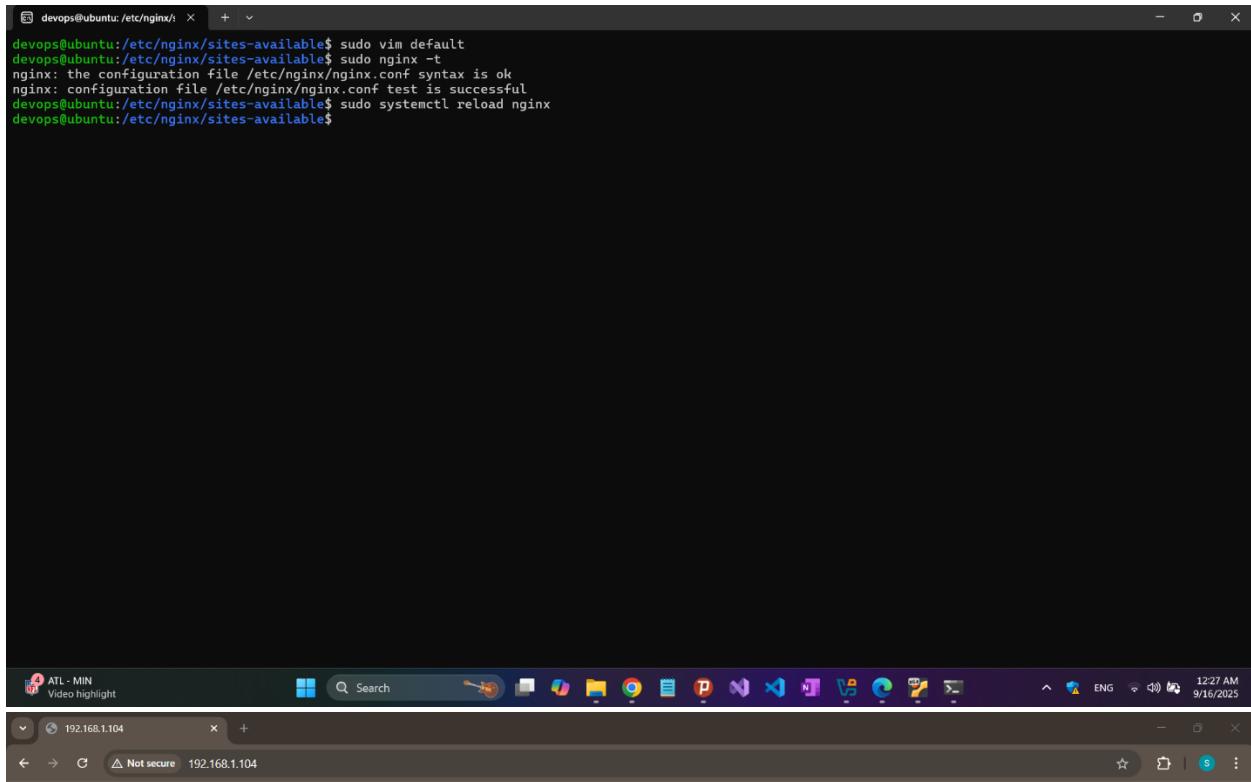
```
upstream lb {
    server 127.0.0.1:3000;
    server 127.0.0.1:3001;
}

server {
    listen 80;
    location / {
        proxy_pass http://lb;
    }
    location /auth {
        auth_basic "please login to access the page.";
        auth_basic_user_file /etc/nginx/.htpasswd;
        root /var/www/web_server_task/html;
    }
}

"default" 20L, 292B
```

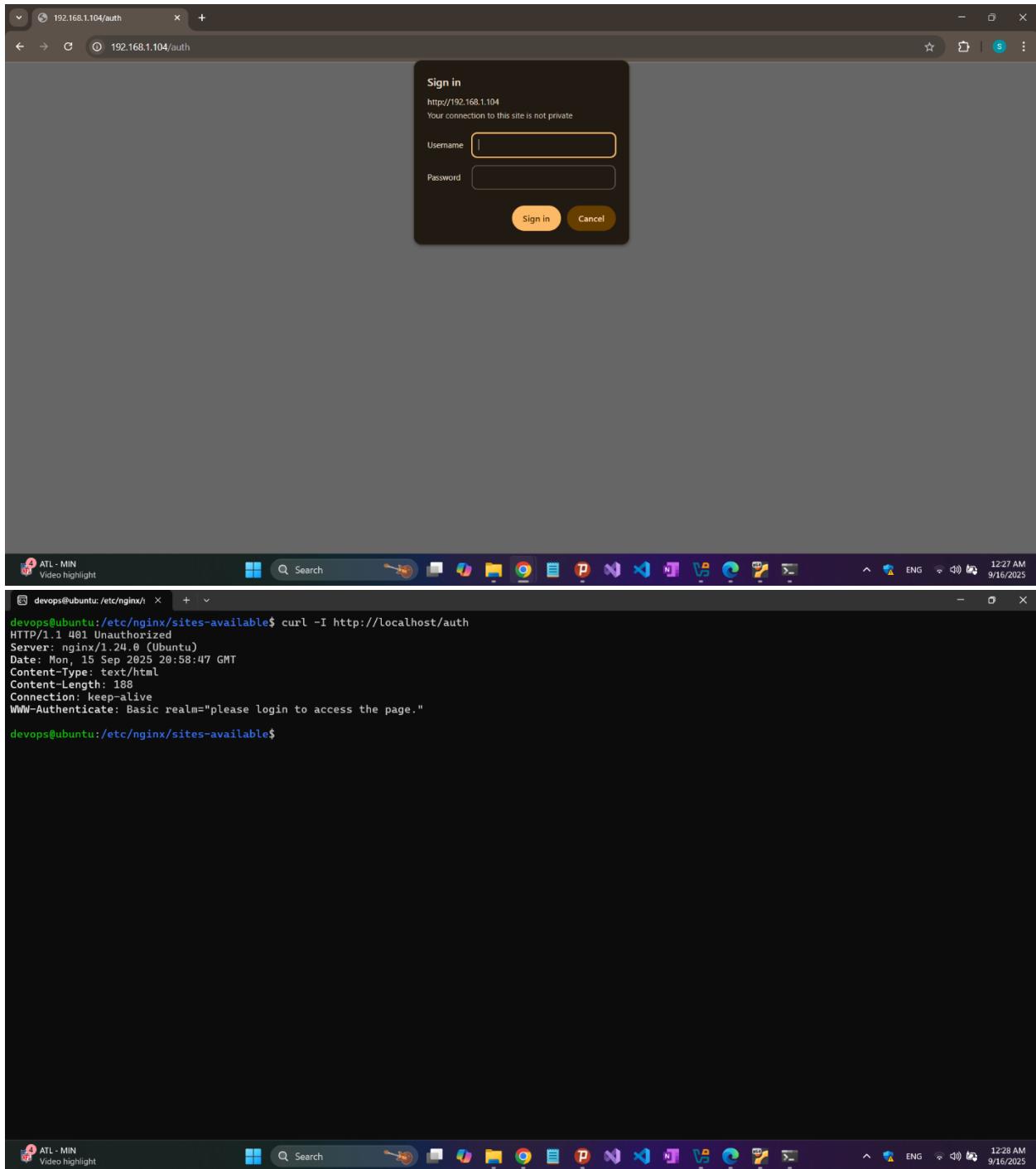
Breaking news
Trump says the...

```
devops@ubuntu:/etc/nginx/sites-available$ sudo vim default
devops@ubuntu:/etc/nginx/sites-available$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
devops@ubuntu:/etc/nginx/sites-available$ sudo systemctl reload nginx
devops@ubuntu:/etc/nginx/sites-available$
```



Hello from port 3001





```
devops@ubuntu:/etc/nginx/sites-available$ cd /var/www
devops@ubuntu:/var/www$ cd web_server_task/
devops@ubuntu:/var/www/web_server_task$ ls
html index.html
devops@ubuntu:/var/www/web_server_task$ cd html
devops@ubuntu:/var/www/web_server_task/html$ ls
index.html
devops@ubuntu:/var/www/web_server_task/html$ mkdir auth
mkdir: cannot create directory 'auth': Permission denied
devops@ubuntu:/var/www/web_server_task/html$ sudo mkdir auth
devops@ubuntu:/var/www/web_server_task/html$ echo "hello you are authorized." >> index.html
-bash: index.html: Permission denied
devops@ubuntu:/var/www/web_server_task/html$ sudo echo "hello you are authorized." >> index.html
-bash: index.html: Permission denied
devops@ubuntu:/var/www/web_server_task/html$ cd auth
devops@ubuntu:/var/www/web_server_task/html/auth$ sudo echo "hello you are authorized." >> index.html
-bash: index.html: Permission denied
devops@ubuntu:/var/www/web_server_task/html/auth$ vim index.html
devops@ubuntu:/var/www/web_server_task/html/auth$ sudo vim index.html
devops@ubuntu:/var/www/web_server_task/html/auth$ |
```



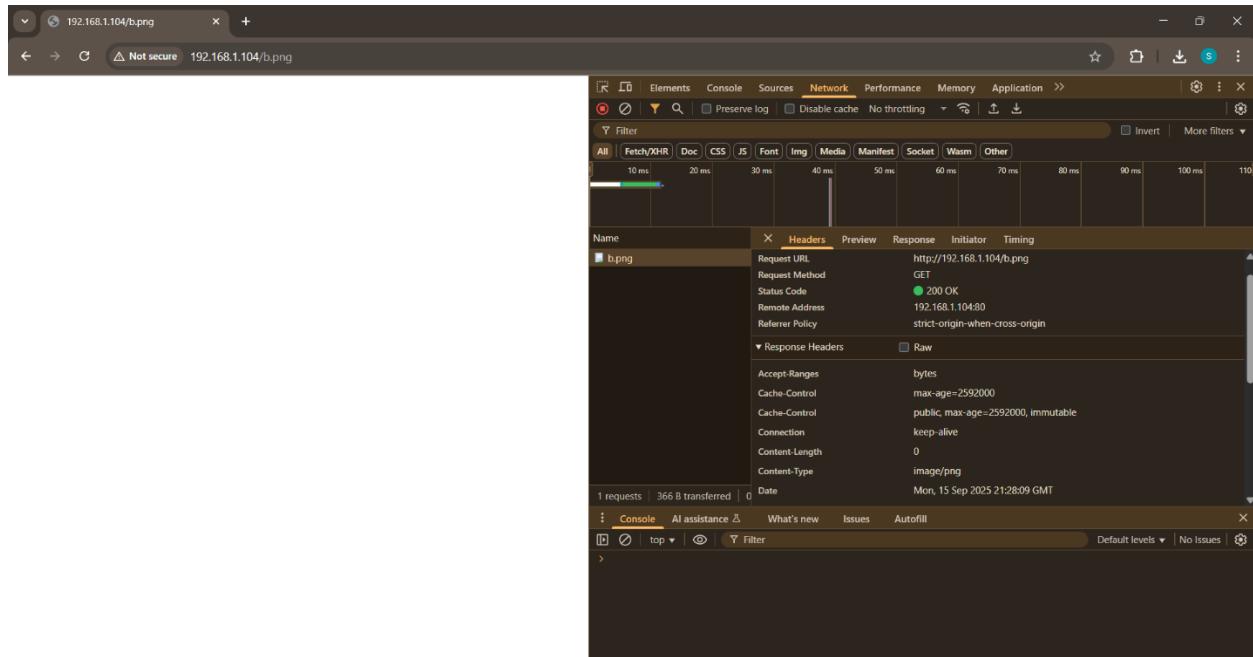
```
20°C
Mostly clear
Search
12:36 AM
9/16/2025
devops@ubuntu:/var/www/v × + ~
devops@ubuntu:/var/www/v × + ~
devops@ubuntu:/var/www/web_server_task/html/auth$ curl -u test:1234 -I http://localhost/auth
HTTP/1.1 301 Moved Permanently
Server: nginx/1.24.0 (Ubuntu)
Date: Mon, 15 Sep 2025 21:06:23 GMT
Content-Type: text/html
Content-Length: 178
Location: http://localhost/auth/
Connection: keep-alive

devops@ubuntu:/var/www/web_server_task/html/auth$ curl -u test:12345555 -I http://localhost/auth
HTTP/1.1 401 Unauthorized
Server: nginx/1.24.0 (Ubuntu)
Date: Mon, 15 Sep 2025 21:06:45 GMT
Content-Type: text/html
Content-Length: 188
Connection: keep-alive
WWW-Authenticate: Basic realm="please login to access the page."

devops@ubuntu:/var/www/web_server_task/html/auth$
```



بخش امتیازی - تمرین اول



Network tab (Headers selected):

Name	Request URL	Status Code	Remote Address	Referrer Policy
b.png	http://192.168.1.104/b.png	200 OK	192.168.1.104:80	strict-origin-when-cross-origin

Response Headers:

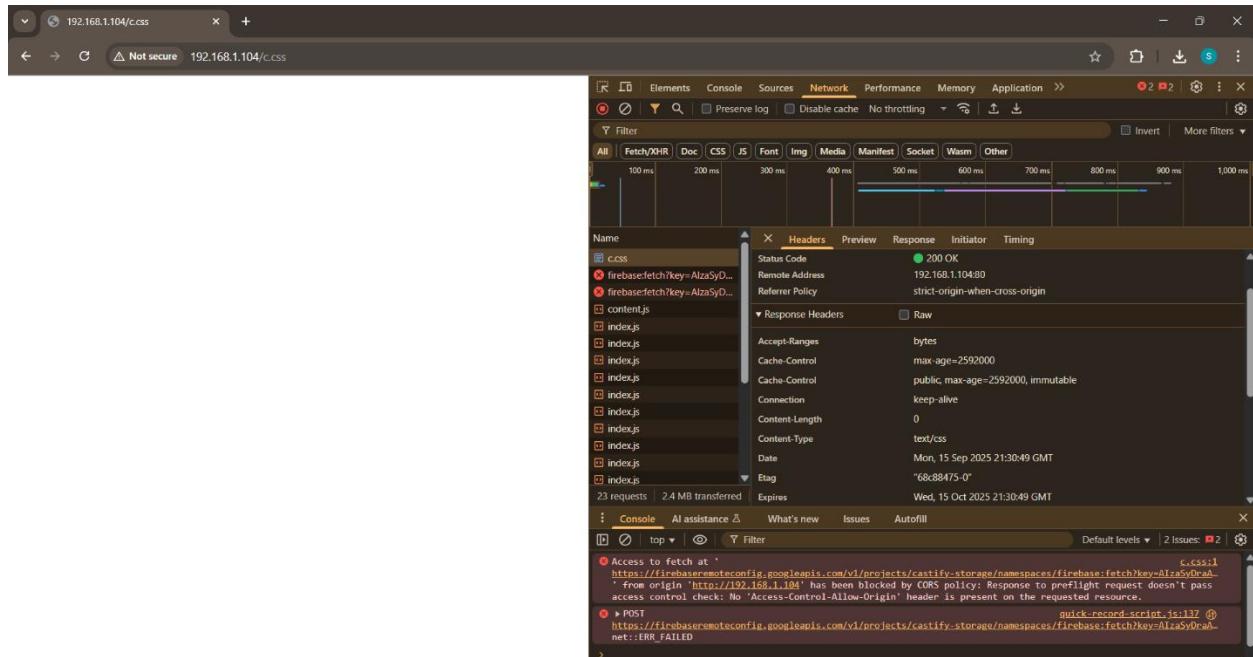
Accept-Ranges	bytes
Cache-Control	max-age=2592000
Cache-Control	public, max-age=2592000, immutable
Connection	keep-alive
Content-Length	0
Content-Type	image/png
Date	Mon, 15 Sep 2025 21:28:09 GMT

Network tab (General selected):

Name	Request URL	Status Code	Remote Address	Referrer Policy
b.png	http://192.168.1.104/b.png	304 Not Modified	192.168.1.104:80	strict-origin-when-cross-origin

Response Headers:

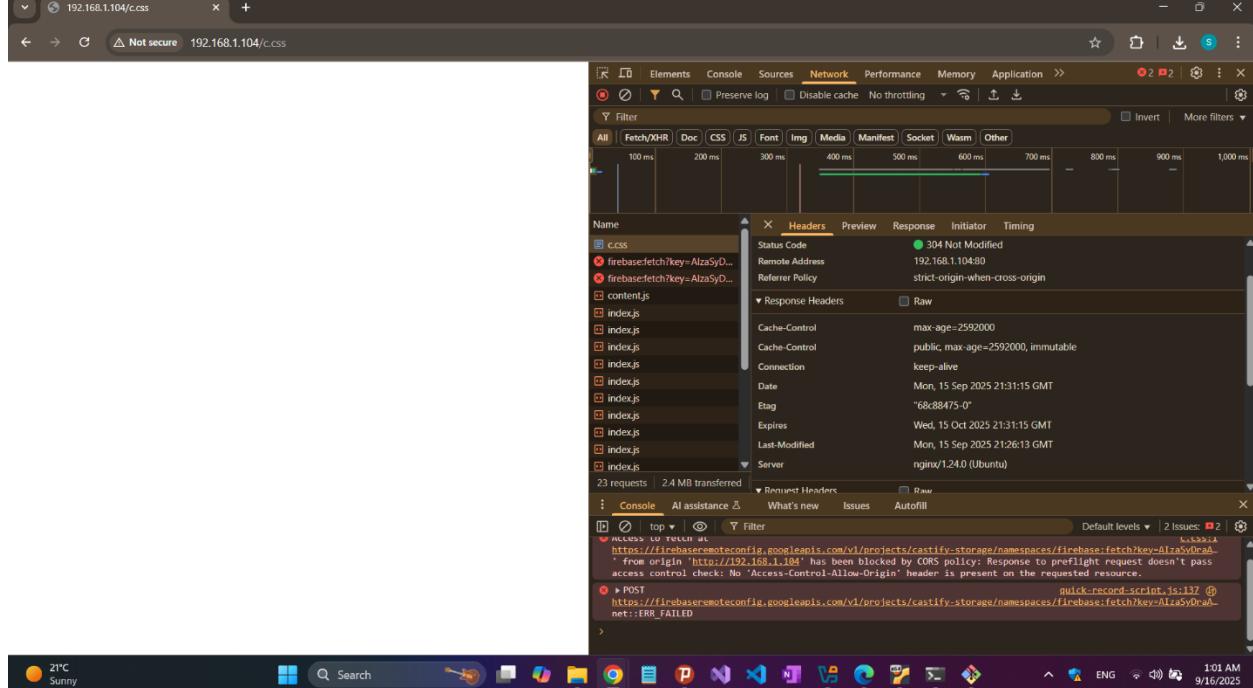
Cache-Control	max-age=2592000
Cache-Control	public, max-age=2592000, immutable
Connection	keep-alive
Date	Mon, 15 Sep 2025 21:28:23 GMT
Etag	"68c86475-0"
Expires	Wed, 15 Oct 2025 21:28:23 GMT



The screenshot shows the Network tab of a browser developer tools interface. A single request for 'c.css' is listed, showing a status code of 200 OK. The response headers include:

- Status Code: 200 OK
- Remote Address: 192.168.1.104:80
- Referer Policy: strict-origin-when-cross-origin
- Accept-Ranges: bytes
- Cache-Control: max-age=2592000
- Content-Length: 0
- Content-Type: text/css
- Date: Mon, 15 Sep 2025 21:30:49 GMT
- Etag: "68:88475-0"
- Expires: Wed, 15 Oct 2025 21:30:49 GMT

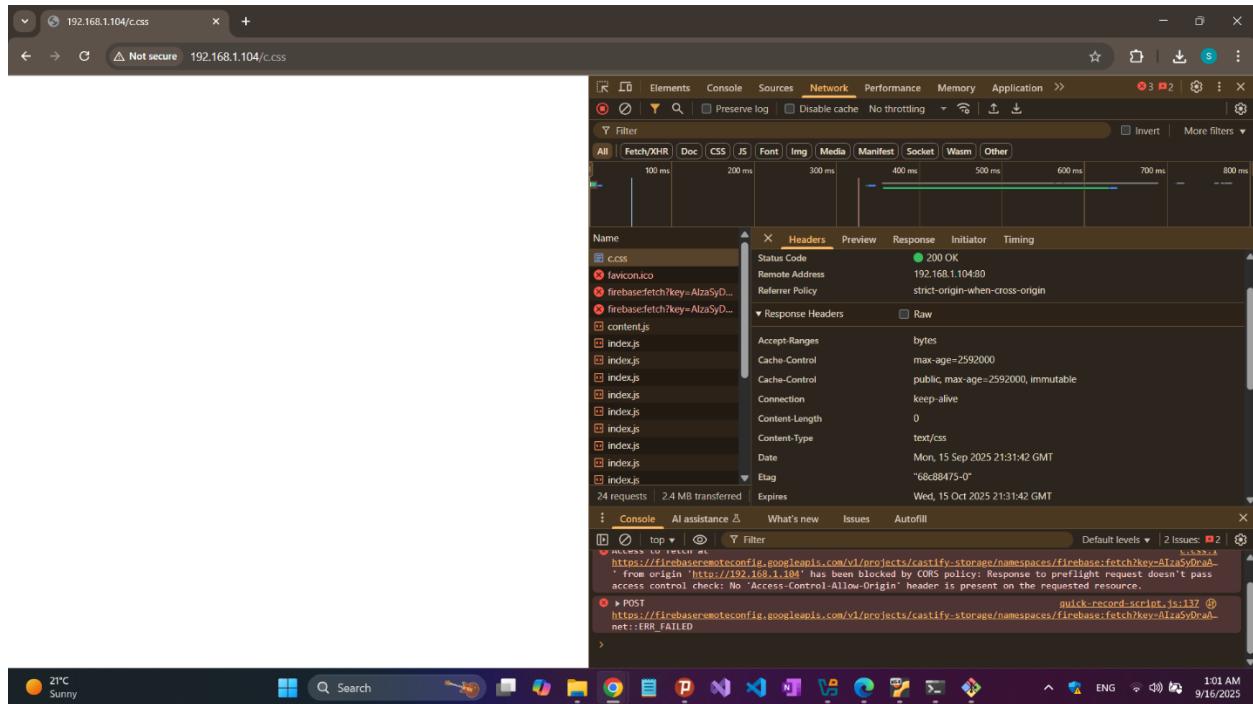
The Network tab also shows a timeline with a single request taking approximately 700ms. The bottom console shows a CORS error message and a POST request to the same endpoint.



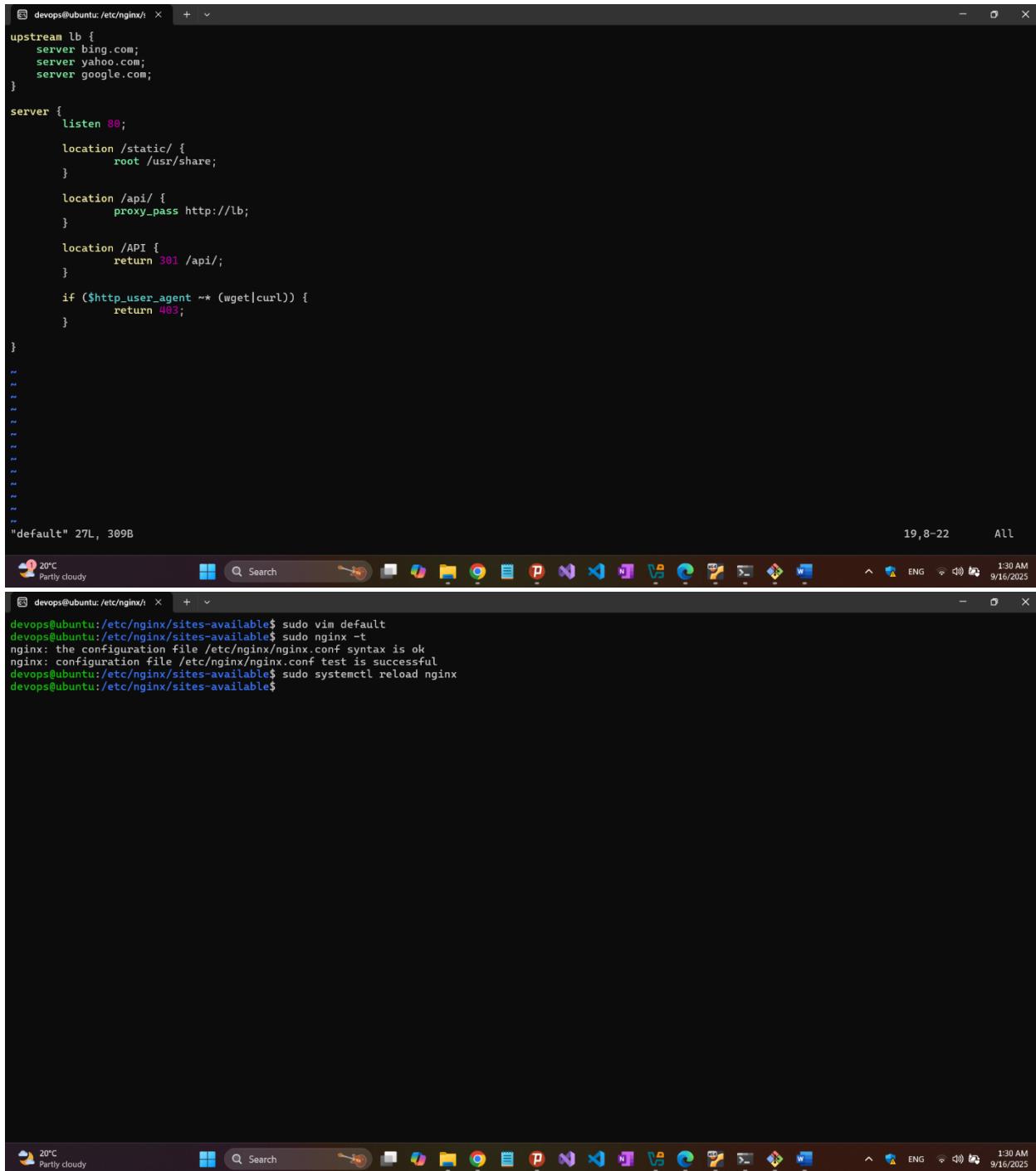
The screenshot shows the Network tab of a browser developer tools interface. A single request for 'c.css' is listed, showing a status code of 304 Not Modified. The response headers include:

- Status Code: 304 Not Modified
- Remote Address: 192.168.1.104:80
- Referer Policy: strict-origin-when-cross-origin
- Cache-Control: max-age=2592000
- Content-Length: 0
- Content-Type: text/css
- Date: Mon, 15 Sep 2025 21:31:15 GMT
- Etag: "68:88475-0"
- Expires: Wed, 15 Oct 2025 21:31:15 GMT
- Last-Modified: Mon, 15 Sep 2025 21:26:13 GMT
- Server: nginx/1.24.0 (Ubuntu)

The Network tab shows a timeline with a single request taking approximately 700ms. The bottom console shows a CORS error message and a POST request to the same endpoint.



بخش امتیازی - تمرین دوم



```
devops@ubuntu:/etc/nginx/i ~ + ~
upstream lb {
    server bing.com;
    server yahoo.com;
    server google.com;
}

server {
    listen 80;

    location /static/ {
        root /usr/share;
    }

    location /api/ {
        proxy_pass http://lb;
    }

    location /API {
        return 301 /api/;
    }

    if ($http_user_agent ~* (wget|curl)) {
        return 403;
    }
}

"default" 27L, 309B
```

19, 8-22 All

```
20°C Partly cloudy Search
```

```
devops@ubuntu:/etc/nginx/sites-available$ sudo vim default
devops@ubuntu:/etc/nginx/sites-available$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
devops@ubuntu:/etc/nginx/sites-available$ sudo systemctl reload nginx
devops@ubuntu:/etc/nginx/sites-available$
```

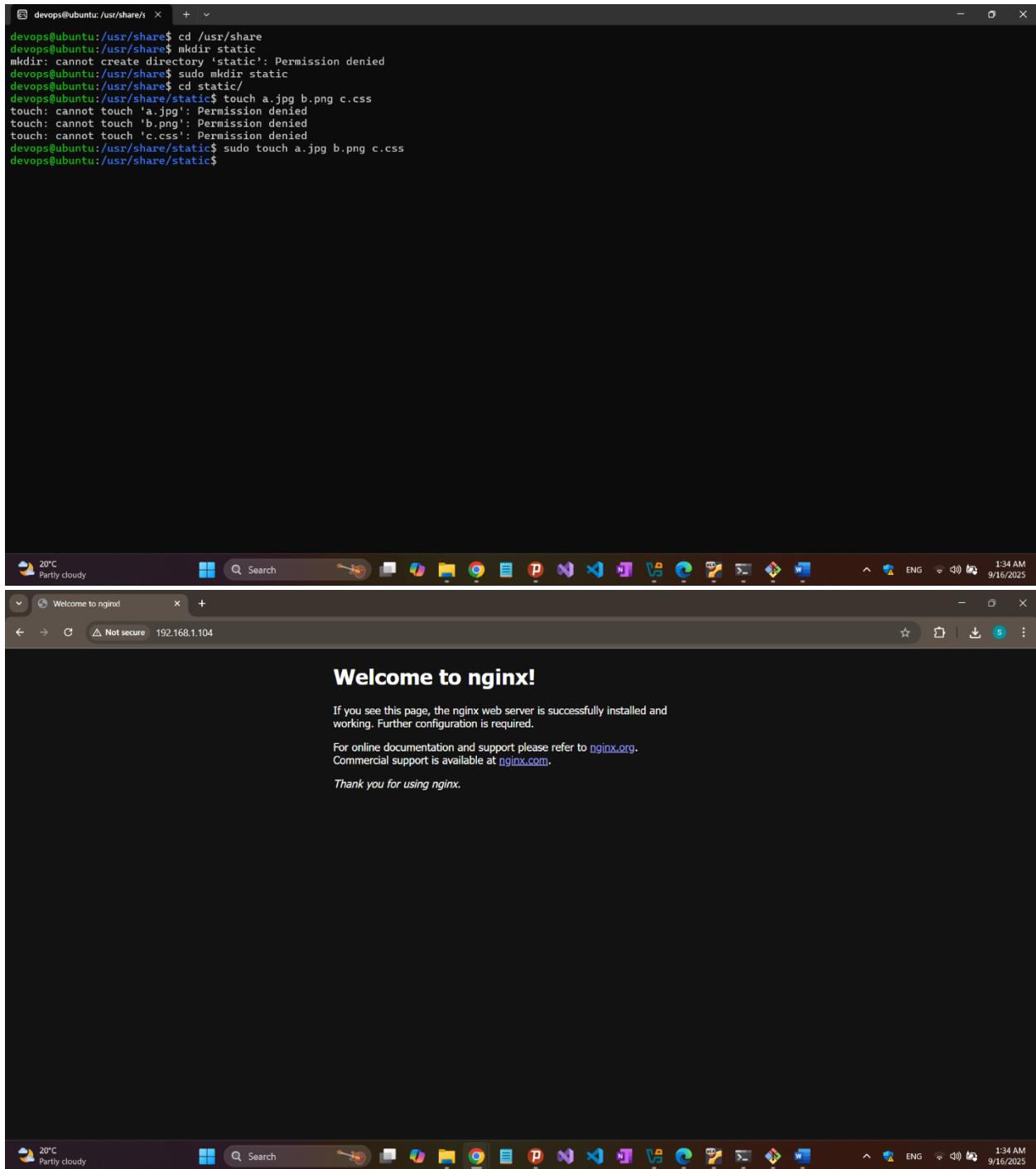
1:30 AM 9/16/2025

```
20°C Partly cloudy Search
```

```
devops@ubuntu:/etc/nginx/sites-available$ sudo vim default
devops@ubuntu:/etc/nginx/sites-available$ sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
devops@ubuntu:/etc/nginx/sites-available$ sudo systemctl reload nginx
devops@ubuntu:/etc/nginx/sites-available$
```

1:30 AM 9/16/2025

```
devops@ubuntu:/usr/share/s ~ + ~
devops@ubuntu:/usr/share$ cd /usr/share
devops@ubuntu:/usr/share$ mkdir static
mkdir: cannot create directory 'static': Permission denied
devops@ubuntu:/usr/share$ sudo mkdir static
devops@ubuntu:/usr/share$ cd static/
devops@ubuntu:/usr/share/static$ touch a.jpg b.png c.css
touch: cannot touch 'a.jpg': Permission denied
touch: cannot touch 'b.png': Permission denied
touch: cannot touch 'c.css': Permission denied
devops@ubuntu:/usr/share/static$ sudo touch a.jpg b.png c.css
devops@ubuntu:/usr/share/static$
```



20°C Partly cloudy

Search

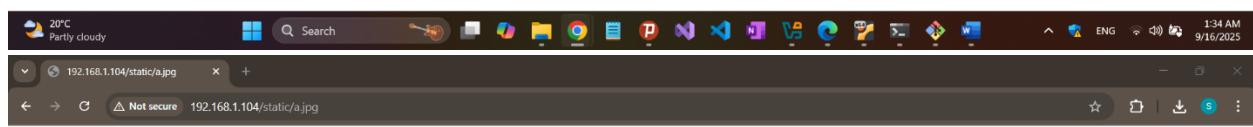
Welcome to nginx!

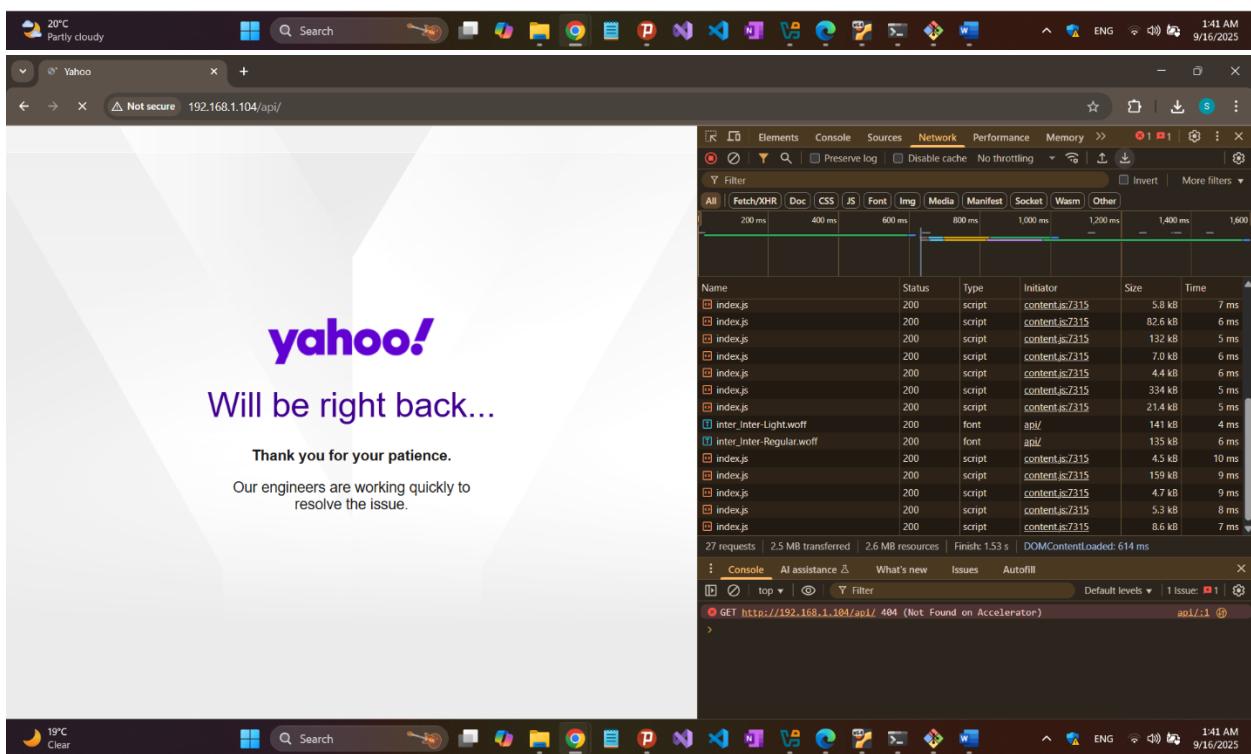
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

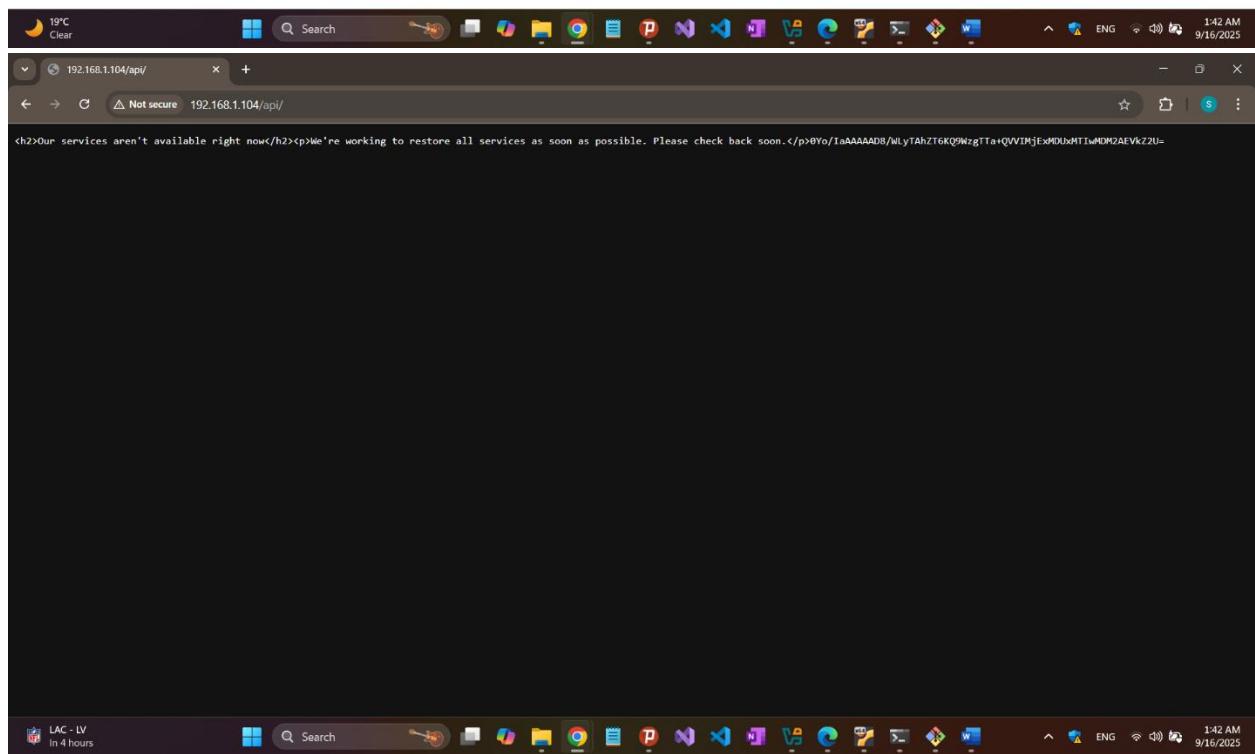
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

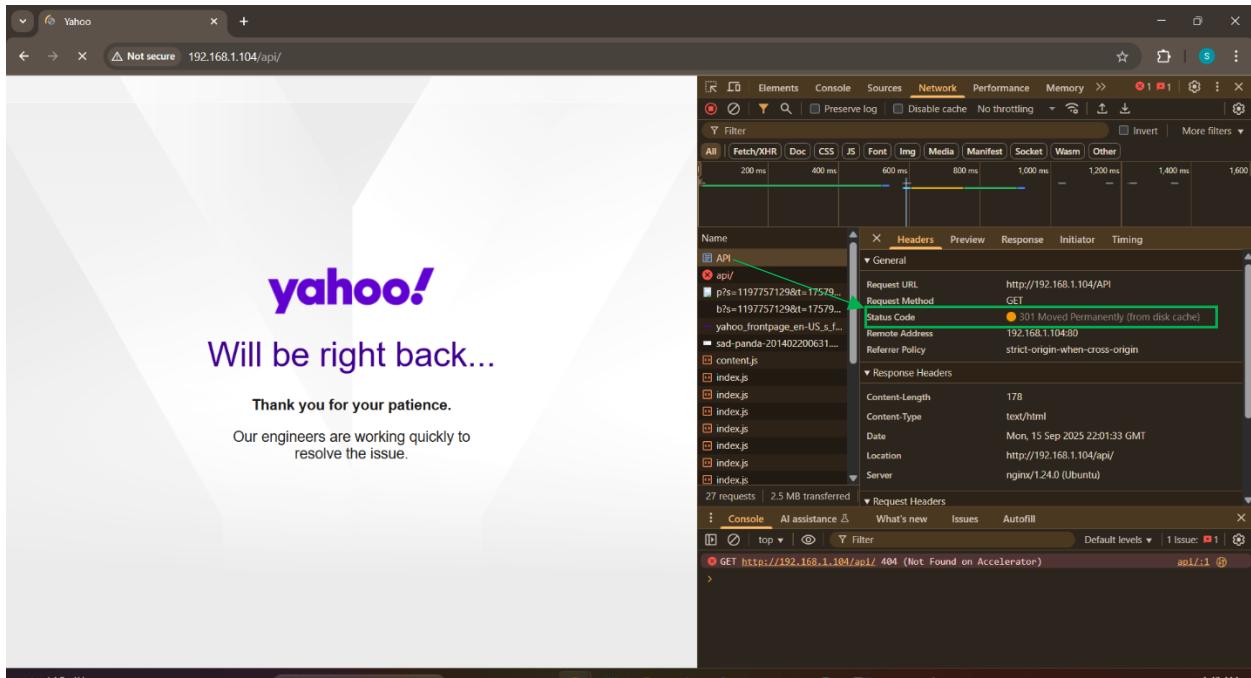
Thank you for using nginx.

1:34 AM 9/16/2025









Yahoo

Not secure 192.168.1.104/api/

yahoo!

Will be right back...

Thank you for your patience.

Our engineers are working quickly to resolve the issue.

Network tab in developer tools showing a 301 Moved Permanently response to http://192.168.1.104/API.

Request URL: http://192.168.1.104/API

Request Method: GET

Status Code: 301 Moved Permanently (from disk cache)

Remote Address: 192.168.1.104:80

Referrer Policy: strict-origin-when-cross-origin

Content-Length: 178

Content-Type: text/html

Date: Mon, 15 Sep 2025 22:01:33 GMT

Location: http://192.168.1.104/ap/

Server: nginx/1.24.0 (Ubuntu)

27 requests | 2.5 MB transferred

Console AI assistance What's new Issues Autofill

Request Headers

GET http://192.168.1.104/api/ 404 (Not Found on Accelerator) ap1/1:1

LAC - LV In 4 hours

Search

devops@ubuntu:/usr/share\$ curl http://localhost/

```
<html>
<head><title>403 Forbidden</title></head>
<body>
<center><h1>403 Forbidden</h1></center>
<hr><center>nginx/1.24.0 (Ubuntu)</center>
</body>
</html>
```

devops@ubuntu:/usr/share\$ wget http://localhost/

```
--2025-09-16 01:44:24-- http://localhost/
Resolving localhost (localhost)... 127.0.0.1
Connecting to localhost (localhost)|127.0.0.1|:80... connected.
HTTP request sent, awaiting response... 403 Forbidden
2025-09-16 01:44:24 ERROR 403: Forbidden.

devops@ubuntu:/usr/share$



LAC - LV In 4 hours



Search



1:43 AM 9/16/2025



1:44 AM 9/16/2025


```