• Установить Nginx и настроить его на работу с PHP-FPM.

Команда:
```
root@andrey-VirtualBox:/etc/nginx# apt install nginx
```

Результат:
```
root@andrey-VirtualBox:/etc/nginx# curl localhost
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
    body {
        width: 35em;
        margin: 0 auto;
        font-family: Tahoma, Verdana, Arial, sans-serif;
    }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed
and
working. Further configuration is required.</p>

<p>For online documentation and support please refer to
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>
</body>
</html>
root@andrey-VirtualBox:/etc/nginx#
```

Команда:
```
root@andrey-VirtualBox:/etc/nginx# apt install php8.1-fpm
root@andrey-VirtualBox:/etc/nginx# ps afx
```

Результат:
```
28394 ?         S       0:00  \_ php-fpm: pool www
28395 ?         S       0:00  \_ php-fpm: pool www
```

Команда:
```
root@andrey-VirtualBox:/etc/nginx/sites-enabled# nano default
```

Результат:
```
location ~ \.php$ {
                include snippets/fastcgi-php.conf;
                root /var/www/html;

        #       # With php-fpm (or other unix sockets):
                fastcgi_pass unix:/run/php/php8.1-fpm.sock;
        #       # With php-cgi (or other tcp sockets):
        #       fastcgi_pass 127.0.0.1:9000;
        }
```

• Установить Apache. Настроить обработку PHP. Добиться одновременной работы с Nginx.

Команда:

```
root@andrey-VirtualBox:/etc/nginx/sites-enabled# apt install apache2
root@andrey-VirtualBox:/etc/nginx/sites-enabled# apachectl -t
```

Результат:

```
AH00558: apache2: Could not reliably determine the server's fully
qualified domain name, using 127.0.1.1. Set the 'ServerName' directive
globally to suppress this message
Syntax OK
```

Команда:

```
root@andrey-VirtualBox:/etc/apache2# nano ports.conf
```

Результат:

```
Listen 8081

<IfModule ssl_module>
        Listen 443
</IfModule>

<IfModule mod_gnutls.c>
        Listen 443
</IfModule>

# vim: syntax=apache ts=4 sw=4 sts=4 sr noet
```

Команда:

```
root@andrey-VirtualBox:/etc/apache2# systemctl start apache2
root@andrey-VirtualBox:/etc/apache2# systemctl status apache2
```

Результат:

```
● apache2.service — The Apache HTTP Server
     Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor
preset: enabled)
     Active: active (running) since Mon 2023-11-06 12:08:14 MSK; 4min 17s
ago
       Docs: https://httpd.apache.org/docs/2.4/
    Process: 30407 ExecStart=/usr/sbin/apachectl start (code=exited,
status=0/SUCCESS)
   Main PID: 30411 (apache2)
      Tasks: 55 (limit: 2262)
     Memory: 4.9M
        CPU: 84ms
     CGroup: /system.slice/apache2.service
             ├─30411 /usr/sbin/apache2 -k start
             ├─30412 /usr/sbin/apache2 -k start
             └─30413 /usr/sbin/apache2 -k start
```

Команда:

```
root@andrey-VirtualBox:/etc/nginx/sites-enabled# apt install php8.1
libapache2-mod-php8.1
```

Enabling module mpm_prefork.
apache2_switch_mpm Switch to prefork
apache2_invoke: Enable module php8.1

• Настроить схему обратного прокси для Nginx (динамика - на Apache).
Команда:
root@andrey-VirtualBox:/etc/nginx/sites-enabled# nano default

Результат:

```
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;

        root /var/www/html;

        # Add index.php to the list if you are using PHP
        index index.html index.htm index.nginx-debian.html;

        server_name _;

        location / {
                proxy_pass http://localhost:8081;
                proxy_set_header Host $host;
                proxy_set_header X-Forwarded-For
$proxy_add_x_forwarded_for;
                proxy_set_header X-Real-IP $remote_addr;
        }
        location ~* ^.+.(jpg|jpeg|gif|png|ico|css|zip|pdf|txt|tar|js)$ {
                root /var/www/html;
        }
```
• Установить MySQL. Создать новую базу данных и таблицу в ней.

Команда:

root@andrey-VirtualBox:/etc/nginx/sites-enabled# apt install mysql-server-8.0
root@andrey-VirtualBox:/etc/nginx/sites-enabled# ss -ntlp

Результат:
```
LISTEN              0                    151
127.0.0.1:3306                                    0.0.0.0:*
users:(("mysqld",pid=32646,fd=33))
LISTEN              0                    70
127.0.0.1:33060                                   0.0.0.0:*
users:(("mysqld",pid=32646,fd=31))
```

```
mysql> create database gb;
Query OK, 1 row affected (0,02 sec)
```

```
mysql> create table test(i int);
Query OK, 0 rows affected (0,05 sec)
```