What is NGINX web server ?

Web Server:

A web server is a server software that satifies the client requests over protocols such as HTTP, HTTPS.

It gets the site requested by the client, from the server system and provides the necessary information on the website.

Nginx:

Nginx is a powerful web server, that comes with a load balancer, reverse proxy and cache loaders to serve the need of the clients in a faster way.

More than the requests of 10,000 clients can be served simultaneously using nginx web server.

Specifications:

- Open source
- HTTP server capabilities
- Maxximum performance and stability
- Proxy server for email

Uses:

- Load Balancer

    methodical and efficient distribution of network or application traffic across multiple servers in a server farm

- Reverse Proxy

    type of proxy server that retrieves resources on behalf of a client from one or more servers. These resources are then returned to the client, appearing as if they originated from the proxy server itself.

Architecture:

Nginx uses Master-slave architecture by supporting event driven, asychronous and non blocking model.
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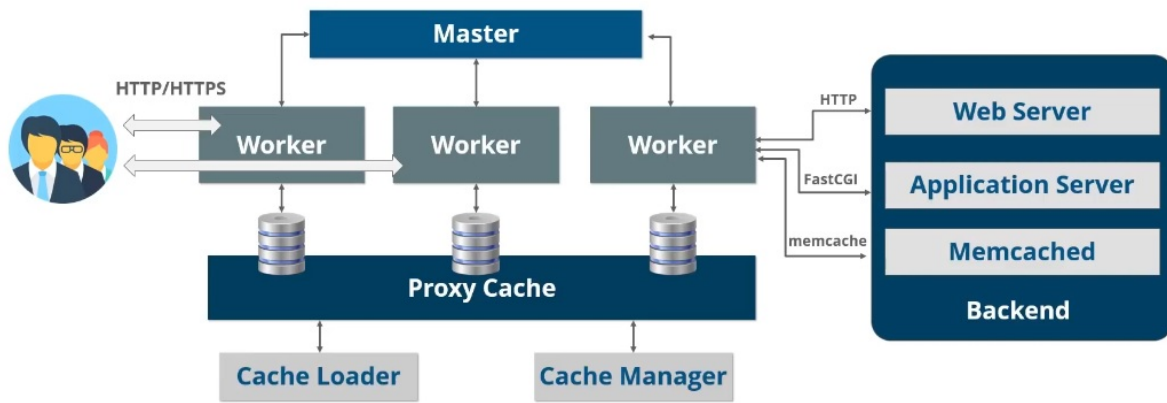
NGINX stands out with a sophisticated event-driven architecture that enables it to scale to hundreds of thousands of concurrent connections on modern hardware

Configurations Structure:

- user
- worker process
- error log
- pid

Faster than Apache(thread driven):

Apache consumes more memory, because each thread consumes a little bit of memory, so if you have 100 threads it will add up. ... This is the main reason why nginx is faster, meaning it can serve more requests per second than Apache on the same hardware

Installation process:(Linux-based)

Install Nginx

```
sudo apt-get update
sudo apt-get install nginx
```

Verify and check version

```
nginx -v
```

Firewall activation and app list

```
sudo ufw enable
sudo ufw app list
```

Adding rules for the apps

```
sudo ufw allow 'app_name'
```

Check status of the rules

```
sudo ufw status
```

Nginx active status

```
sudo systemctl status nginx
```

References:

- Nginx
- Comparison
- Master-Slave
- Configurations

Thank You!!!