

# Deploying a live project via NGINX - Node-todo

## What is NGINX?

⇒ A simple web server to serve web files.

Other than Nginx there are apache, python django, httpd.

## Features of Nginx:

- **Reverse Proxy**: Lets our localhost is running on 127.0.0.1:8000 and we have to open this to other <sup>users</sup> one option is go to security group and change permissions but it is not good so we use reverse proxy so it creates a proxy tunnel i.e. our application is running on localhost and others users can access it by using reverse proxy server.
- **Load Balancing**
- **URL Redirection, Indexing, Caching**

## Project steps:

- create EC2 instance of ubuntu image allow http and https ports also.
- connect it on AWS.
- `sudo apt-get update`
- `sudo apt install nginx`
- `systemctl status nginx`
- `sudo systemctl restart nginx`
- paste ip of ec2 instance:80 ⇒ The content we get

is stored in `/var/www/html` → `do ls` → `cat <filename>`

- Create one `index.html` file inside `/var/www/html`  
Now paste ip of ec2 instance our page get served.

Now we deploy the project from repo

- `git clone <node-todo list app>`
- go inside it
- we go inside the readme and check requirements  
`sudo apt install docker.io`

- `docker ps` (output is permission dennied because this user has no permission to access docker)

`sudo usermod -aG docker $USER`

`sudo reboot`

- `docker build -t notes-app .`
- `docker run -d -p 8000:8000 notes-app:latest`

Here application is running on port 8000 and we don't want to expose this port so we use reverse proxy to host.

- `curl -L http://127.0.0.1:8000` (for checking it is working or not)

so it is working on local Now we have to open this to outside world.

- `cd /etc/nginx/sites-enabled/`
- `ls` (one default file is there)
- `sudo vim default`

Go inside location `/{}>` and add the line on top

```
proxy_pass http://127.0.0.1:8000;
```

```
exec :wq
```

- `sudo systemctl restart nginx`

Now go to browser and paste ec2 ip it shows the app but page is white so for that we have change the route of root or we can add content in index.html file.

- Now copy the index.html, style.css and app.js files in `/var/www/html`.
- for this project we copy this folder to `/var/www/html`  
`sudo cp -r * /var/www/html/`
- Now check on browser it is running