

NIPUN SINGAL

500069052

R171218069

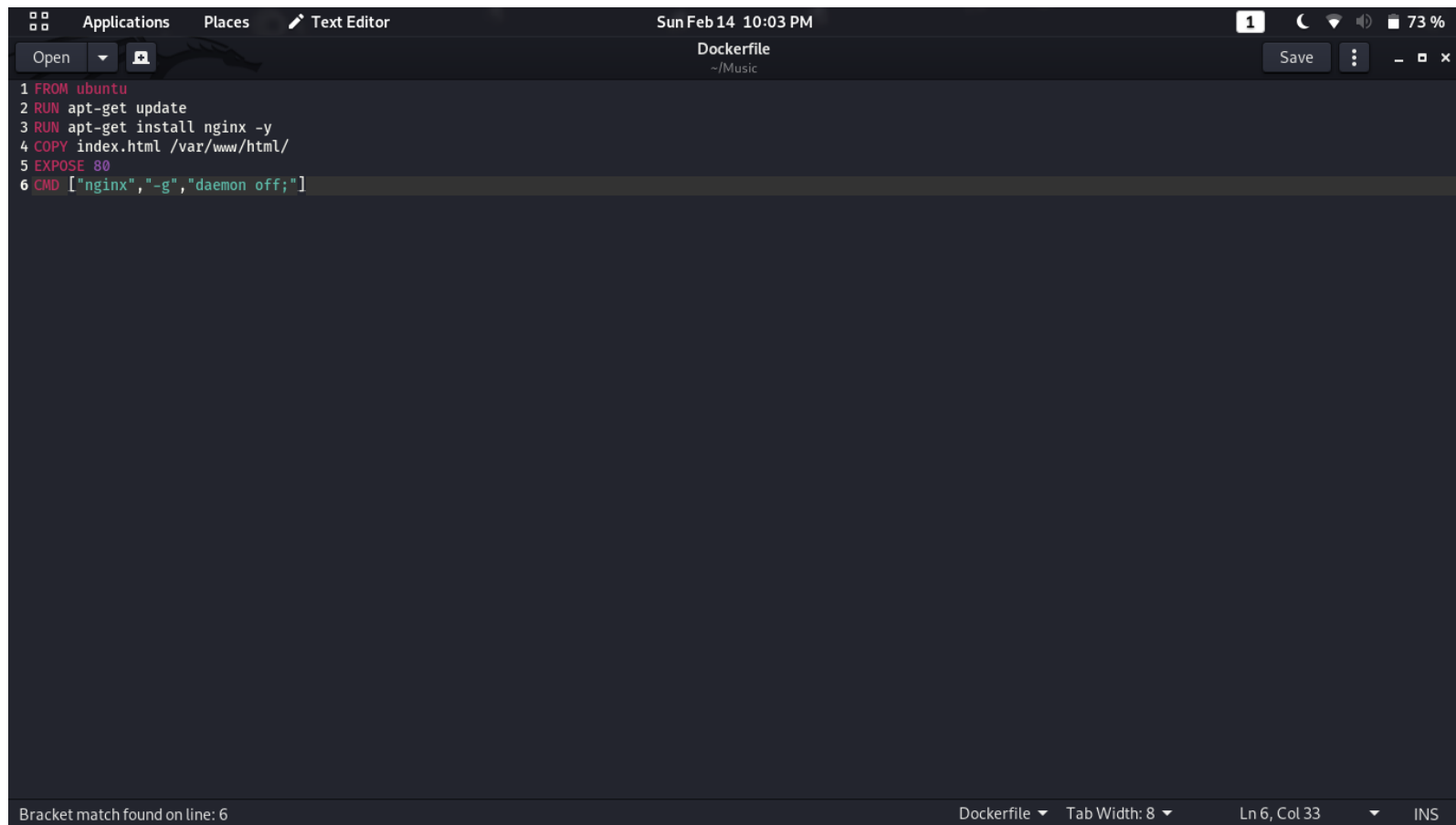
DevOps-III

# Application Containerization Lab

## EXPERIMENT-5

Build a docker image and push it to the docker hub

Step1: Create a Dockerfile and write the commands in it also knows as layers of the image and save it.

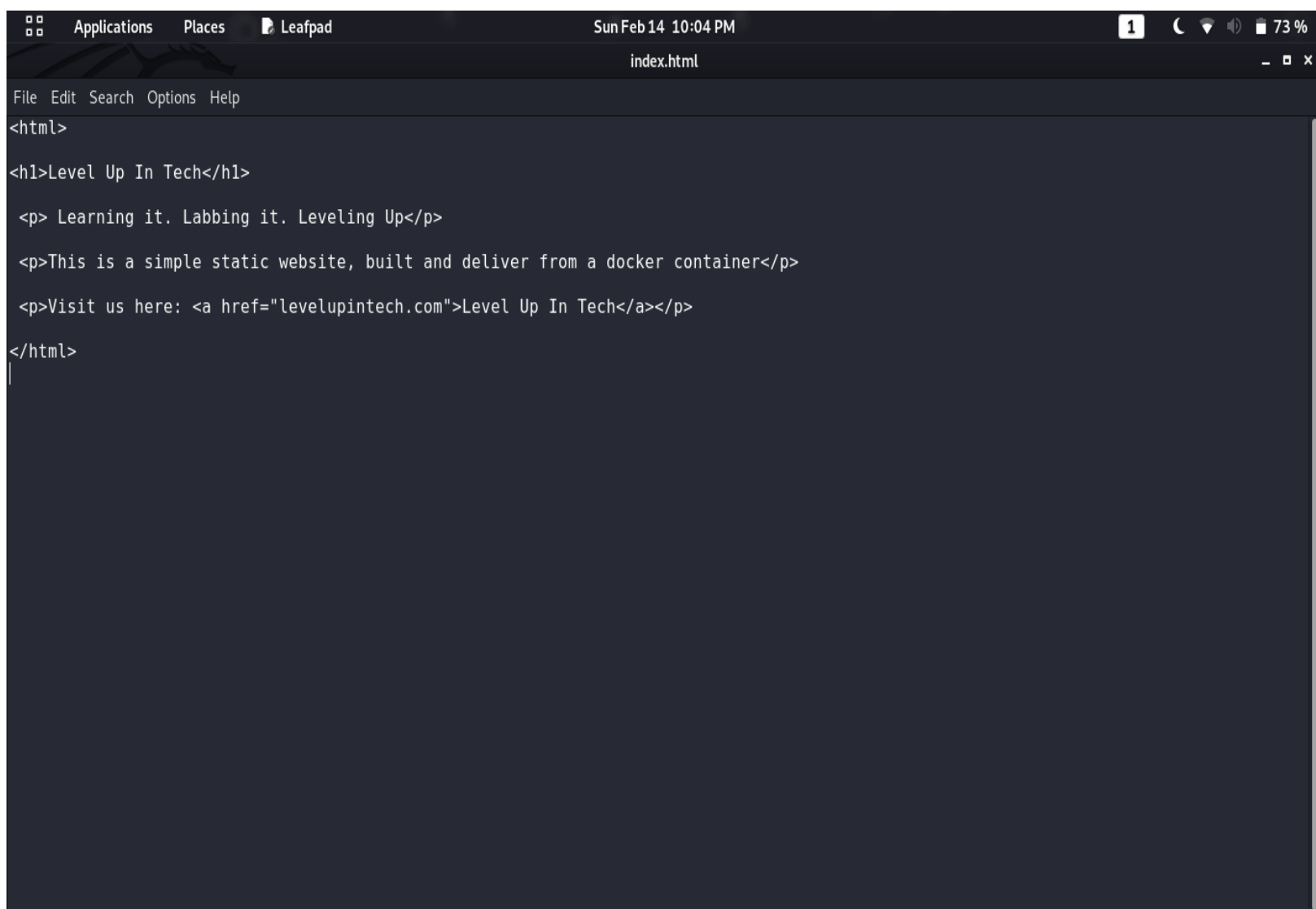


The screenshot shows a text editor window titled "Dockerfile" with the path "~/Music". The editor contains the following Dockerfile instructions:

```
1 FROM ubuntu
2 RUN apt-get update
3 RUN apt-get install nginx -y
4 COPY index.html /var/www/html/
5 EXPOSE 80
6 CMD ["nginx", "-g", "daemon off;"]
```

The status bar at the bottom indicates "Bracket match found on line: 6", "Dockerfile", "Tab Width: 8", "Ln 6, Col 33", and "INS".

Step2: Now create an index.html file and paste some html content in it. This is the file we will access on the nginx server

A screenshot of a Linux desktop environment. At the top, a panel shows 'Applications', 'Places', and 'Leafpad'. The system clock indicates 'Sun Feb 14 10:04 PM'. The battery level is at 73%. The main window is a text editor titled 'index.html' with a menu bar containing 'File', 'Edit', 'Search', 'Options', and 'Help'. The editor's content is as follows:

```
<html>
<h1>Level Up In Tech</h1>

<p> Learning it. Labbing it. Leveling Up</p>

<p>This is a simple static website, built and deliver from a docker container</p>

<p>Visit us here: <a href="levelupintech.com">Level Up In Tech</a></p>

</html>
```

Step3: Now build the container with the commands

```
docker build -t [repository-name]:[tag-name] [path-of-dockerfile]
```

Note: we can use the dot(.) in “path-of-dockerfile” if the file is in same directory where we are currently working

```
root@anonymous: ~/Music
root@anonymous:~/Music# touch Dockerfile
root@anonymous:~/Music# leafpad Dockerfile
root@anonymous:~/Music# docker build -t nginximage:1.0 .
Sending build context to Docker daemon 481.8kB
Step 1/6 : FROM ubuntu
--> f63181f19b2f
Step 2/6 : RUN apt-get update
--> Running in f50b19b6ed1f
Get:1 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
Get:2 http://security.ubuntu.com/ubuntu focal-security InRelease [109 kB]
Get:3 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:4 http://archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]
Get:5 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [11.3 MB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [612 kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [165 kB]
Get:8 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [13.3 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [664 kB]
Get:10 http://archive.ubuntu.com/ubuntu focal/main amd64 Packages [1275 kB]
Get:11 http://archive.ubuntu.com/ubuntu focal/restricted amd64 Packages [33.4 kB]
Get:12 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [177 kB]
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [924 kB]
Get:14 http://archive.ubuntu.com/ubuntu focal-updates/multiverse amd64 Packages [21.1 kB]
Get:15 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1016 kB]
Get:16 http://archive.ubuntu.com/ubuntu focal-updates/restricted amd64 Packages [198 kB]
Get:17 http://archive.ubuntu.com/ubuntu focal-backports/universe amd64 Packages [4301 B]
Fetched 17.0 MB in 6s (2761 kB/s)
Reading package lists...
Removing intermediate container f50b19b6ed1f
--> 50a62db442c2
Step 3/6 : RUN apt-get install nginx -y
--> Running in b2dc7d8bdb15
Reading package lists...
Building dependency tree...
Reading state information...
The following additional packages will be installed:
  fontconfig-config fonts-dejavu-core iproute2 libatm1 libbsd0 libcap2
  libcap2-bin libelf1 libexpat1 libfontconfig1 libfreetype6 libgd3 libicu66
  libjbig0 libjpeg-turbo8 libjpeg8 libmnl0 libnginx-mod-http-image-filter
  libnginx-mod-http-xslt-filter libnginx-mod-mail libnginx-mod-stream
```

Step4: Type docker images to check your created image

Step5: login to your docker hub account in the terminal using command

```
docker login --username [your-username]
```

Step6: Now create tag of your image with command

```
docker tag [current-repo-name]:[current tag-name] [your-username]/[new  
repo-name]:[new-tag-name]
```

```
Applications  Places  Terminal  Sun Feb 14 8:32 PM  1  80 %
root@anonymous: ~/Music

nginximage  1.0      0a900aff30db  About a minute ago  159MB
alpine      latest   e50c909a8df2  2 weeks ago        5.61MB
ubuntu     latest   f63181f19b2f  3 weeks ago        72.9MB
redis       latest   74d107221092  2 months ago       104MB
hello-world latest   bf756fb1ae65  13 months ago      13.3kB

root@anonymous:~/Music# docker login --username nipunsingal123
unknown flag: --username
See 'docker login --help'.

root@anonymous:~/Music# docker login --username nipunsingal123
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
root@anonymous:~/Music# docker tag nginximage:1.0 nipunsingal123/nginxsrv:1.0
root@anonymous:~/Music# docker images
REPOSITORY          TAG          IMAGE ID      CREATED        SIZE
nginximage          1.0          0a900aff30db  17 minutes ago  159MB
nipunsingal123/nginxsrv  1.0          0a900aff30db  17 minutes ago  159MB
alpine              latest       e50c909a8df2  2 weeks ago    5.61MB
ubuntu              latest       f63181f19b2f  3 weeks ago    72.9MB
redis               latest       74d107221092  2 months ago   104MB
hello-world         latest       bf756fb1ae65  13 months ago  13.3kB

root@anonymous:~/Music# docker push nipunsingal123/nginxsrv
Using default tag: latest
The push refers to repository [docker.io/nipunsingal123/nginxsrv]
tag does not exist: nipunsingal123/nginxsrv:latest
root@anonymous:~/Music# docker push nipunsingal123/nginxsrv:1.0
The push refers to repository [docker.io/nipunsingal123/nginxsrv]
808a0d279ab5: Pushed
6b39040f411d: Pushed
569fcdc94d8d: Pushed
02473afd360b: Mounted from nipunsingal123/nginx
dbf2c0f42a39: Mounted from nipunsingal123/nginx
9f32931c9d28: Mounted from nipunsingal123/nginx
1.0: digest: sha256:ca6ac068bb66c6fb8996f20098a2117baf5d51eb20a55725c3f9084ca0a5726a size: 1574
root@anonymous:~/Music#
```

Step7: now push the tagged image to the docker hub using the command

`docker push [repository-name]:[tag-name]`

ApplicationsPlacesFirefox ESR

Sun Feb 14 8:34 PM

179 %

Docker Hub - Mozilla Firefox

ArrayArraysBus MUsinghow toJDK v1megaData Mea(13) BSQL FAttribSalesfBb UTF-8Bb BlackDo X(13)

←→↺↻https://hub.docker.com/repositories

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dockerhub

Search for great content (e.g., mysql)

ExploreRepositoriesOrganizationsGet Help

nipunsingal123

nipunsingal123

Search by repository name...

Create Repository

nipunsingal123 / nginxsrv

Updated 5 minutes ago

Not Scanned

0

1

Public

nipunsingal123 / nginx

Updated a day ago

Not Scanned

0

4

Public

nipunsingal123 / v2

Updated 2 months ago

Not Scanned

0

6

Public

Tip: Not finding your repository? Try switching namespace via the top left dropdown.

ApplicationsPlacesFirefox ESR

Sun Feb 14 8:34 PM

179 %

Docker Hub - Mozilla Firefox

ArrayArraysBus MUsinghow toJDK v1megaData Mea(13) BSQL FAttribSalesfBb UTF-8Bb BlackDo X(13)

←→↺↻https://hub.docker.com/repository/docker/nipunsingal123/nginxsrv

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nipunsingal123 / nginxsrv

This repository does not have a description

Last pushed: 7 minutes ago

Docker commands

Public View

To push a new tag to this repository,

`docker push nipunsingal123/nginxsrv:tagname`

Tags and Scans

VULNERABILITY SCANNING - DISABLED

Enable

This repository contains 1 tag(s).

TAG	OS	PULLED	PUSHED
1.0		7 minutes ago	7 minutes ago

See all

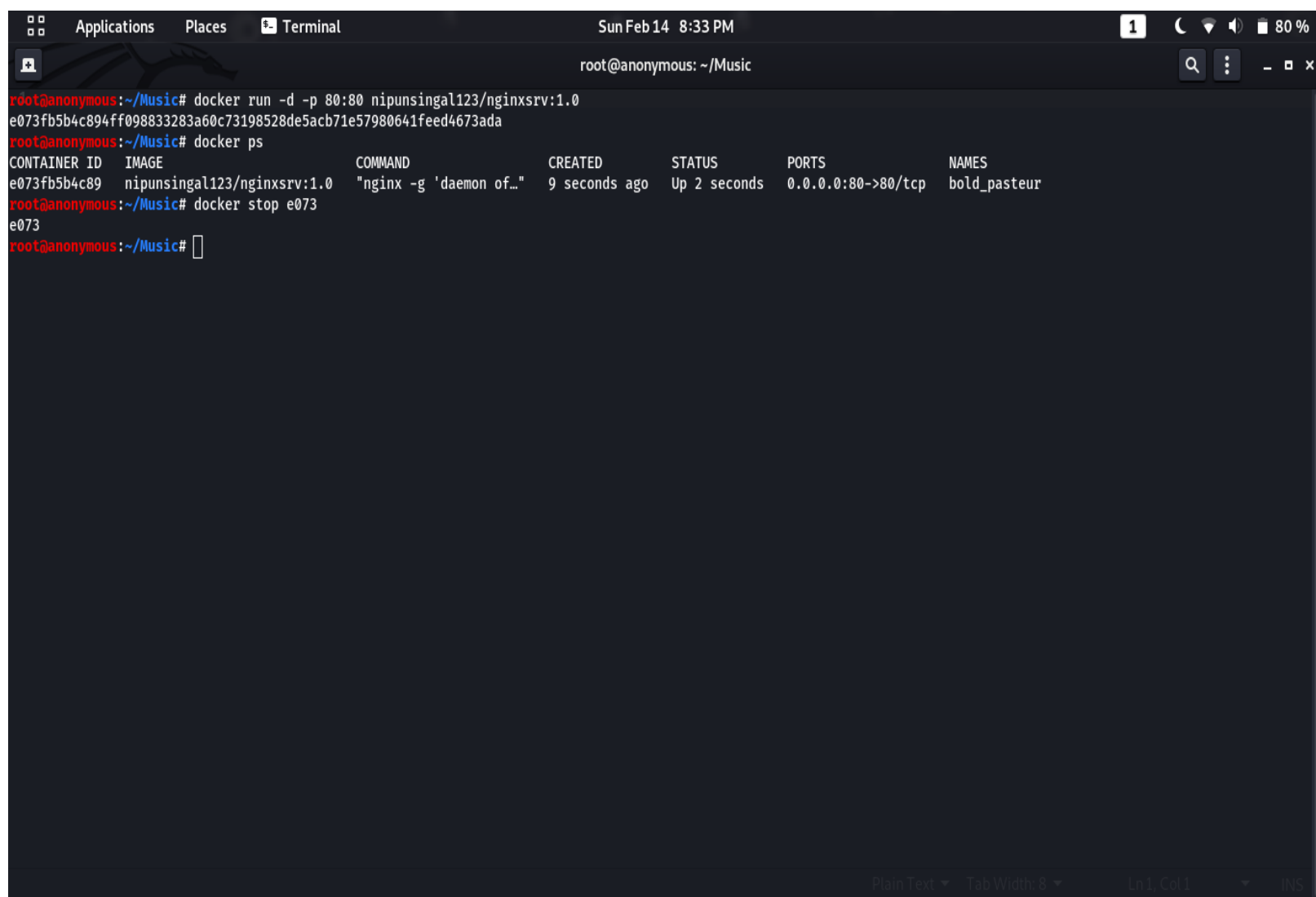
Recent builds

Link a source provider and run a build to see build results here.

Readme

Step8: Now run your image with mapping the port to it

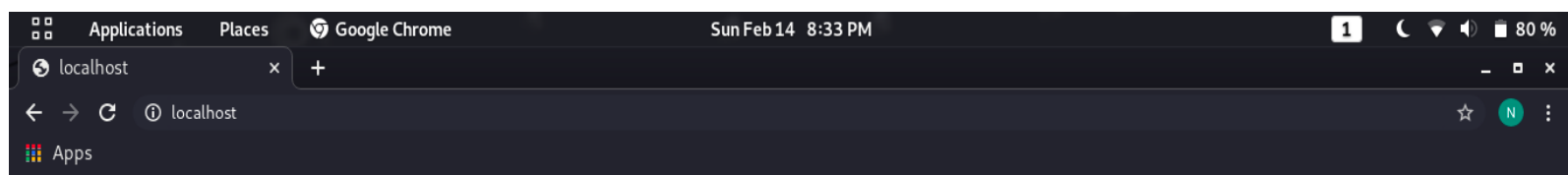
`docker run -d -p 80:80 [repository-name]:[tag-name]`

A terminal window titled 'root@anonymous: ~/Music' with a dark background. The terminal shows the execution of Docker commands. First, 'docker run -d -p 80:80 nipunsingal123/nginxsrv:1.0' is run, resulting in a long container ID. Then, 'docker ps' is run, displaying a table of running containers. Finally, 'docker stop e073' is run, and the container is stopped. The terminal window has a top bar with 'Applications', 'Places', and 'Terminal' tabs, and a status bar at the bottom showing 'Plain Text', 'Tab Width: 8', 'Ln 1, Col 1', and 'INS'.

```
root@anonymous: ~/Music
root@anonymous:~/Music# docker run -d -p 80:80 nipunsingal123/nginxsrv:1.0
e073fb5b4c894ff098833283a60c73198528de5acb71e57980641feed4673ada
root@anonymous:~/Music# docker ps
CONTAINER ID   IMAGE                  COMMAND                  CREATED        STATUS        PORTS                    NAMES
e073fb5b4c89   nipunsingal123/nginxsrv:1.0   "nginx -g 'daemon of..."   9 seconds ago   Up 2 seconds   0.0.0.0:80->80/tcp        bold_pasteur
root@anonymous:~/Music# docker stop e073
e073
root@anonymous:~/Music#
```



Step9: open your web browser and search localhost:80 in the address bar. If everything is done correctly you will see the html file that we created earlier



## Level Up In Tech

Learning it. Labbing it. Leveling Up

This is a simple static website, built and deliver from a docker container

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