

Terraform Task_3

1 – Working on Workspace dev

```
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$ ls
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$ terraform workspace show
default
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$ terraform workspace new dev
Created and switched to workspace "dev"!

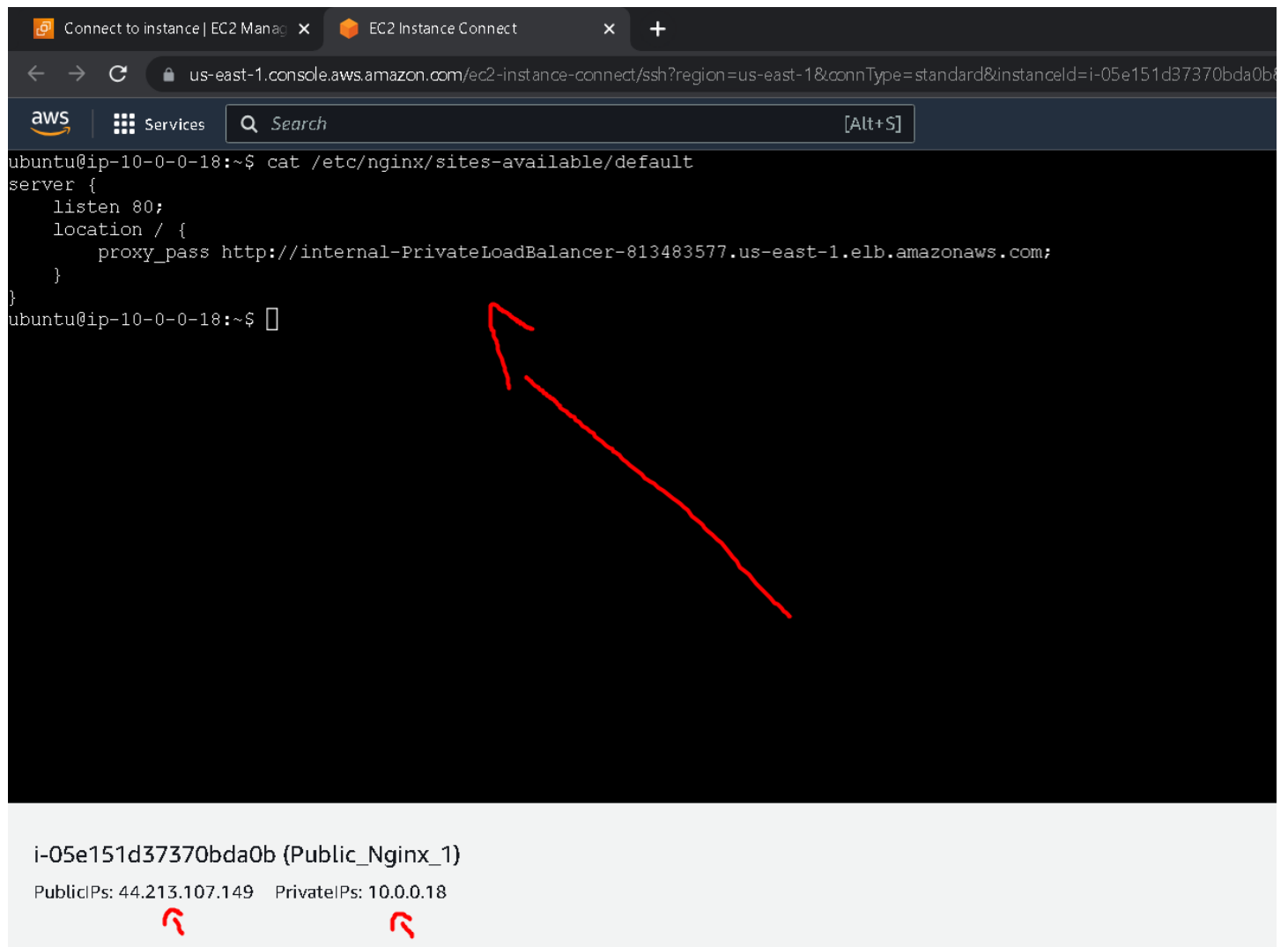
You're now on a new, empty workspace. Workspaces isolate their state,
so if you run "terraform plan" Terraform will not see any existing state
for this configuration.
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$ terraform workspace show
dev
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$ terraform workspace select dev
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$ terraform workspace show
dev
amr@DESKTOP-D5VVHN0: ~/terraform_tasks/Last_Task$
```

2 - s3 that contain the state file

The screenshot shows the AWS S3 console interface. The breadcrumb navigation at the top reads: Amazon S3 > Buckets > amr-ashraf-bucket > env/ > dev/. A red arrow points to 'amr-ashraf-bucket' and another points to the 'terraform.tfstate' file in the list below. The file is 72.2 KB and was last modified on July 15, 2023, at 01:53:09 (UTC+03:00). The storage class is 'Standard'.

	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	terraform.tfstate	tfstate	July 15, 2023, 01:53:09 (UTC+03:00)	72.2 KB	Standard

3 – configuration of the proxy



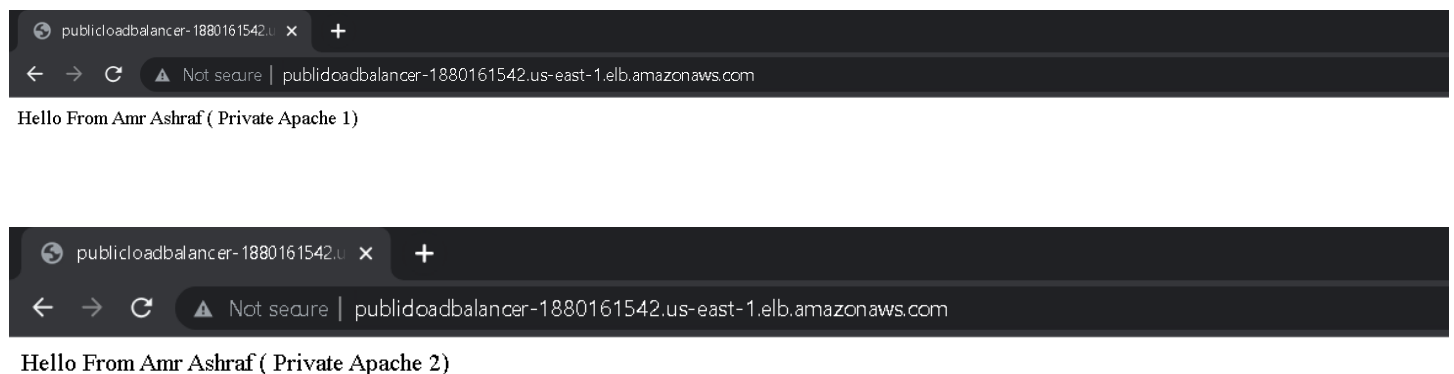
The screenshot shows the AWS Management Console interface for an EC2 instance. The terminal window displays the command to view the default Nginx configuration file. The output shows a configuration that proxies requests to an internal PrivateLoadBalancer. A red arrow points from the 'Public_Nginx_1' instance name to the 'PublicIPs' field in the instance details below the terminal.

```
ubuntu@ip-10-0-0-18:~$ cat /etc/nginx/sites-available/default
server {
    listen 80;
    location / {
        proxy_pass http://internal-PrivateLoadBalancer-813483577.us-east-1.elb.amazonaws.com;
    }
}
```

ubuntu@ip-10-0-0-18:~\$

i-05e151d37370bda0b (Public_Nginx_1)
PublicIPs: 44.213.107.149 PrivateIPs: 10.0.0.18

4 - public dns of the load balancer when you send a traffic to it from a browser and it returns the content of the private ec2



The first screenshot shows a web browser with the address bar displaying 'publicloadbalancer-1880161542.us-east-1.elb.amazonaws.com'. The page content is 'Hello From Amr Ashraf (Private Apache 1)'. The second screenshot shows the same browser with the same address bar, but the page content is 'Hello From Amr Ashraf (Private Apache 2)'. This demonstrates that the public load balancer is routing traffic to different private EC2 instances.

publicloadbalancer-1880161542.us-east-1.elb.amazonaws.com
Hello From Amr Ashraf (Private Apache 1)

publicloadbalancer-1880161542.us-east-1.elb.amazonaws.com
Hello From Amr Ashraf (Private Apache 2)

The Final Results in Terminal :

```
Apply complete! Resources: 31 added, 0 changed, 0 destroyed.
```

```
Outputs:
```

```
all_ips = [  
  "public-ip1 44.213.107.149",  
  "public-ip2 44.204.84.16",  
  "private-ip1 10.0.1.83",  
  "private-ip2 10.0.3.181",  
]  
public_instance_ips = [  
  "44.213.107.149",  
  "44.204.84.16",  
]  
public_load_balancer_dns = "PublicLoadBalancer-1880161542.us-east-1.elb.amazonaws.com"  
amr@DESKTOP-D5VVHN0:~/terraform_tasks/Final_Task$
```

File All-ips.txt

