Q) Create a VPC also create a ec2 with amazon linux ami and install the webserver and host you portfolio on the ec2

General steps:

1. **Create a vpc first with vpc only option**

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP option set
☐	–	vpc-00e811aee63173e5d	⊘ Available	172.31.0.0/16	–	dopt-07906611f00af17a1
☐	vpc-revise	vpc-0962408f2a114b7c7	⊘ Available	10.0.0.0/16	–	dopt-07906611f00af17a1

2. **Now create a internet gateway and attached to the newly created VPC**

Internet gateways (1/3) Info   ↻   Actions ▼   **Create internet gateway**

🔍 Search   < 1 > ⚙

	Name	Internet gateway ID	State	VPC ID	Owner
☐	–	igw-025ffa18ff5667cf9	⊖ Detached	–	866388144037
☑	vpc-revise-ig	igw-07eee47ff568b6c7a	⊘ Attached	vpc-0962408f2a114b7c7 | vpc-revise	866388144037

3. **Create two subnet one a private subnet and another public subnet**

☐	vpc-revise-private-subnet1	subnet-01d4ba27edb024113	⊘ Available	vpc-0962408f2a114b7c7 | vpc-...	10.0.3.0/24	–
☐	test-subnet-public1a	subnet-05650d8942f620856	⊘ Available	vpc-0d131346425d0d2c8 | my-...	12.0.1.0/24	–
☐	vpc-revise-public-subnet1	subnet-06a7a8651c06e21e0	⊘ Available	vpc-0962408f2a114b7c7 | vpc-...	10.0.1.0/24	–

4. **Now create a route table and associate a public subnet to it**

VPC > Route tables > rtb-0f82f57ff6a3c5665 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/2)

🔍 Filter subnet associations   < 1 > ⚙

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
☐	vpc-revise-private-subnet1	subnet-01d4ba27edb024113	10.0.3.0/24	–	Main (rtb-077863b55ca1d06be)
☑	vpc-revise-public-subnet1	subnet-06a7a8651c06e21e0	10.0.1.0/24	–	rtb-0f82f57ff6a3c5665 / vpc-revise-rt

Selected subnets

subnet-06a7a8651c06e21e0 / vpc-revise-public-subnet1 ✕

5. **Edit a route with the following configuration**

VPC > Route tables > rtb-0f82f57ff6a3c5665 > Edit routes

Edit routes

Destination	Target	Status	Propagated	
10.0.0.0/16	local ▼	⊘ Active	No	
	🔍 local ✕			
🔍 0.0.0.0/0 ✕	Internet Gateway ▼	⊘ Active	No	Remove
	🔍 igw-07eee47ff568b6c7a ✕			

Add route

Cancel   Preview   **Save changes**

6. **Now create an EC2 instance with the created vpc and assign the public subnet there with key and security group as http and ssh**

Instances (1) Info   ↻   Connect   Instance state ▼   Actions ▼   **Launch instances** ▼

🔍 Find Instance by attribute or tag (case-sensitive)   Any state ▼   < 1 > ⚙

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Pub
☐	vpc-revise-ec2	i-095d7e778df6d0bba	⊘ Running ⊕ ⊖	t2.micro	⊘ 2/2 checks passed	View alarms +	us-east-1a	–	54.2

7. **Install the web server on the ec2**

```
[ec2-user@ip-10-0-1-40 ~]$ sudo yum  update
Last metadata expiration check: 9:31:29 ago on Fri Mar  1 05:21:23 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-10-0-1-40 ~]$ sudo yum install httpd
Last metadata expiration check: 9:32:01 ago on Fri Mar  1 05:21:23 2024.
Package httpd-2.4.58-1.amzn2023.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-10-0-1-40 ~]$
```

8. **Start the server**

```
[ec2-user@ip-10-0-1-40 ~]$ sudo service httpd start
Redirecting to /bin/systemctl start httpd.service
[ec2-user@ip-10-0-1-40 ~]$
```

9. **Now copy the public ip and paste on the browser**

i-095d7e778df6d0bba (vpc-revise-ec2)

PublicIPs: 54.221.11.178   PrivateIPs: 10.0.1.40

See we are able to access the server through public ip

```
←   →   C    ⚠ Not secure   54.221.11.178
```

🅖 ChatGPT M Gmail ∞ Puzzle 6 | (Mon... ▶ YouTube ⠿ ielts 🍄 Computer Scie... ❄ euro_cup_s

It works!

10. **Now we need to upload our static site on the ec2 machine, to do so create a temp folder inside ec2 and upload the static file there**

```
[ec2-user@ip-10-0-1-40 ~]$ mkdir temp
[ec2-user@ip-10-0-1-40 ~]$ ls
temp
[ec2-user@ip-10-0-1-40 ~]$
```

11. Now upload the static file from you local machine to ec2

```
satish@satish-subedi:~/Desktop$ scp -i "revise-vpc-key-pair.pem" -r static_site/ ec2-user@54.221.11.178:~/temp
satish.html                                                      100% 1268     4.0KB/s   00:00
satish.jpg                                                       100%  201KB 142.9KB/s   00:01
satish@satish-subedi:~/Desktop$
```

Verify the uploaded file

```
[ec2-user@ip-10-0-1-40 ~]$ cd temp
[ec2-user@ip-10-0-1-40 temp]$ ls
static_site
[ec2-user@ip-10-0-1-40 temp]$ cd static_site/
[ec2-user@ip-10-0-1-40 static_site]$ ls
satish.html  satish.jpg
[ec2-user@ip-10-0-1-40 static_site]$
```

12. Move the file to var/www/html

```
[ec2-user@ip-10-0-1-40 temp]$ cd static_site
[ec2-user@ip-10-0-1-40 static_site]$ ls
satish.html  satish.jpg
[ec2-user@ip-10-0-1-40 static_site]$ sudo mv * /var/www/html/
[ec2-user@ip-10-0-1-40 static_site]$ ls
```

13. Check the file is moved or not

```
[ec2-user@ip-10-0-1-40 static_site]$ cd /var/www/html/
[ec2-user@ip-10-0-1-40 html]$ ls
satish.html  satish.jpg  static_site
```

14. Start the server
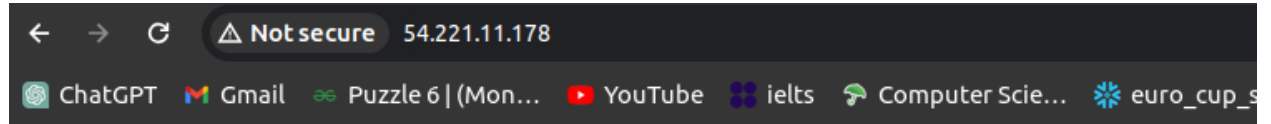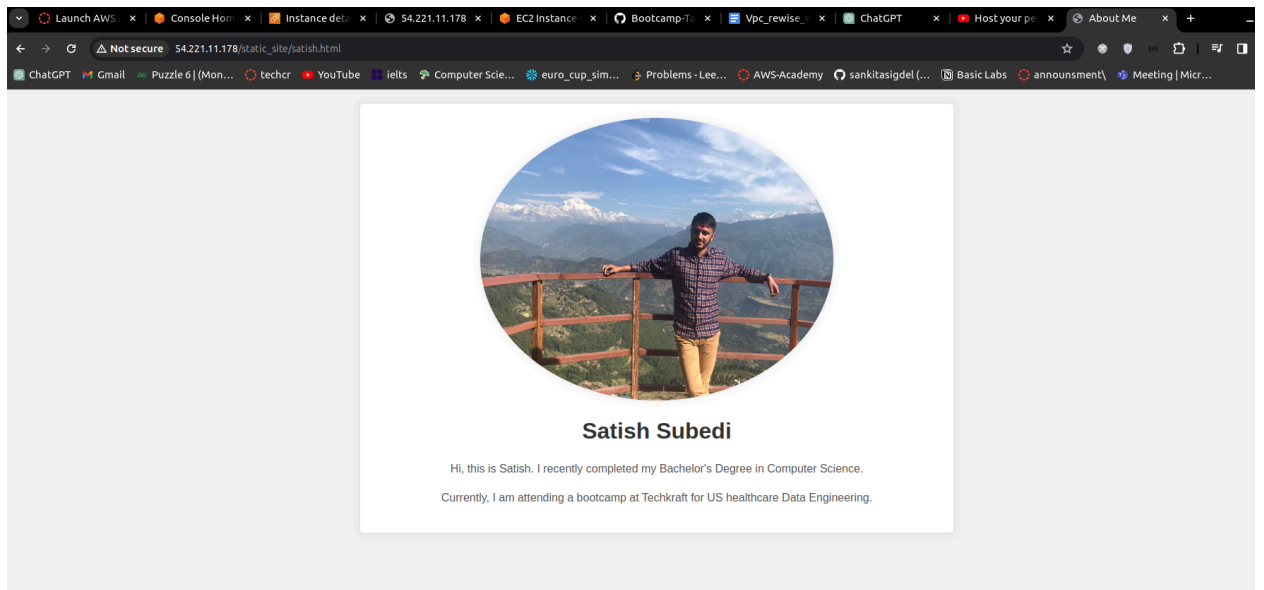
```
[ec2-user@ip-10-0-1-40 html]$ sudo service  httpd start
Redirecting to /bin/systemctl start httpd.service
[ec2-user@ip-10-0-1-40 html]$ systemctl httpd status
```

15. Check the status

```
[ec2-user@ip-10-0-1-40 html]$ systemctl status httpd
● httpd.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
     Active: active (running) since Fri 2024-03-01 14:54:24 UTC; 1h 8min ago
       Docs: man:httpd.service(8)
   Main PID: 3302 (httpd)
     Status: "Total requests: 16; Idle/Busy workers 100/0;Requests/sec: 0.00387; Bytes served/sec:   2 B/sec"
      Tasks: 230 (limit: 1114)
     Memory: 22.1M
        CPU: 2.621s
     CGroup: /system.slice/httpd.service
             ├─3302 /usr/sbin/httpd -DFOREGROUND
             ├─3303 /usr/sbin/httpd -DFOREGROUND
             ├─3304 /usr/sbin/httpd -DFOREGROUND
             ├─3305 /usr/sbin/httpd -DFOREGROUND
             ├─3306 /usr/sbin/httpd -DFOREGROUND
             └─3623 /usr/sbin/httpd -DFOREGROUND
```

16. Now acces the static through public ip

FINALLY I AM ABLE TO ACCESS MY STATIC SITE THROUGH MY PUBLIC IP