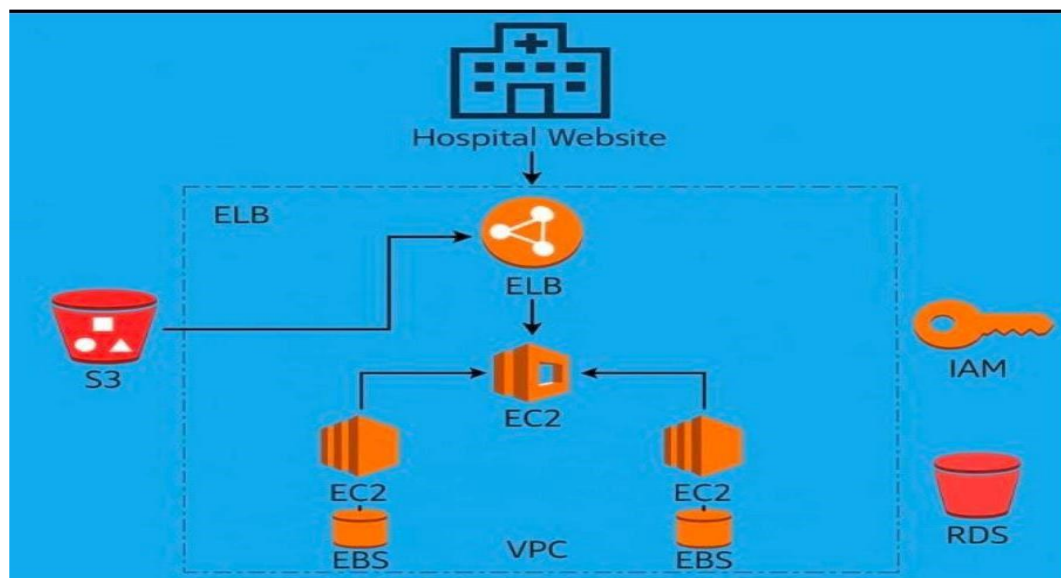


## **ABSTRACT :-**

This project focuses on building a secure, reliable, and scalable Hospital Website using **AWS Cloud Services**. The website's static content, such as HTML, CSS and JavaScript. To deliver the website content efficiently across the globe with security. We use AWS services for website hosting because they give reliability, scalability, and flexibility without buying our own physical servers.

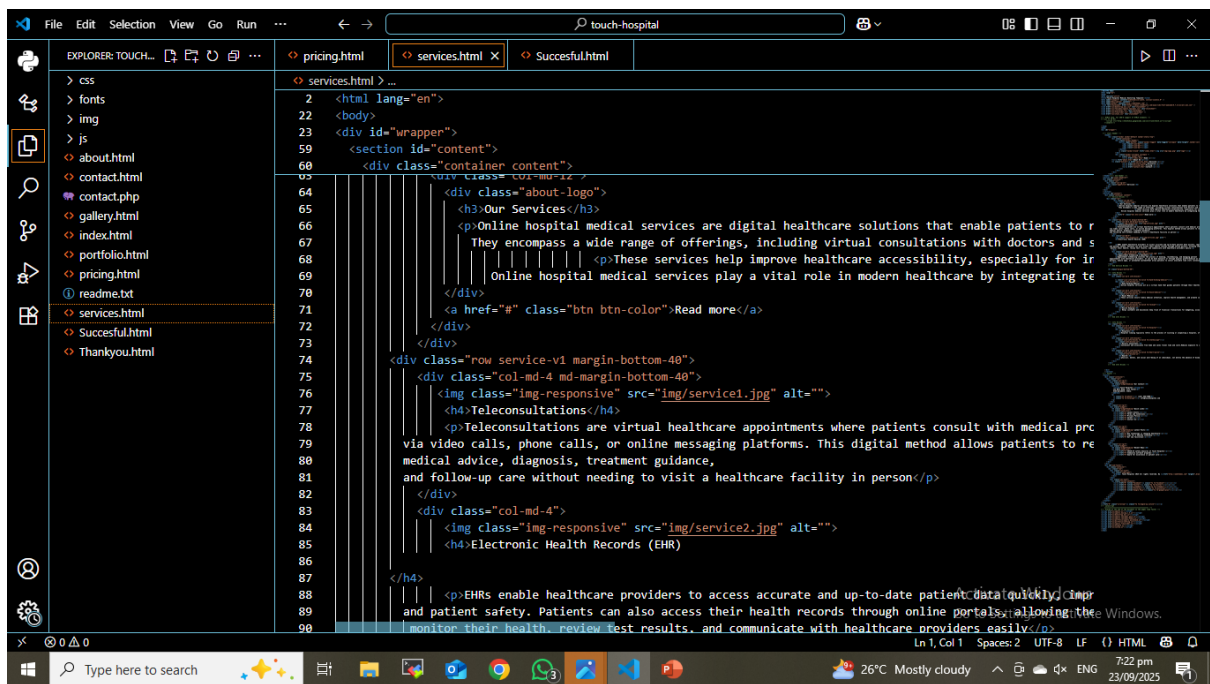
Hospitals need secure, scalable, and cost-effective websites to serve patients efficiently. It can helping patients spend less time waiting and letting doctors focus more on care. This project solves that by using AWS Cloud Services to host and deliver a hospital website with improved speed, security, and availability.

## **Work Flow**

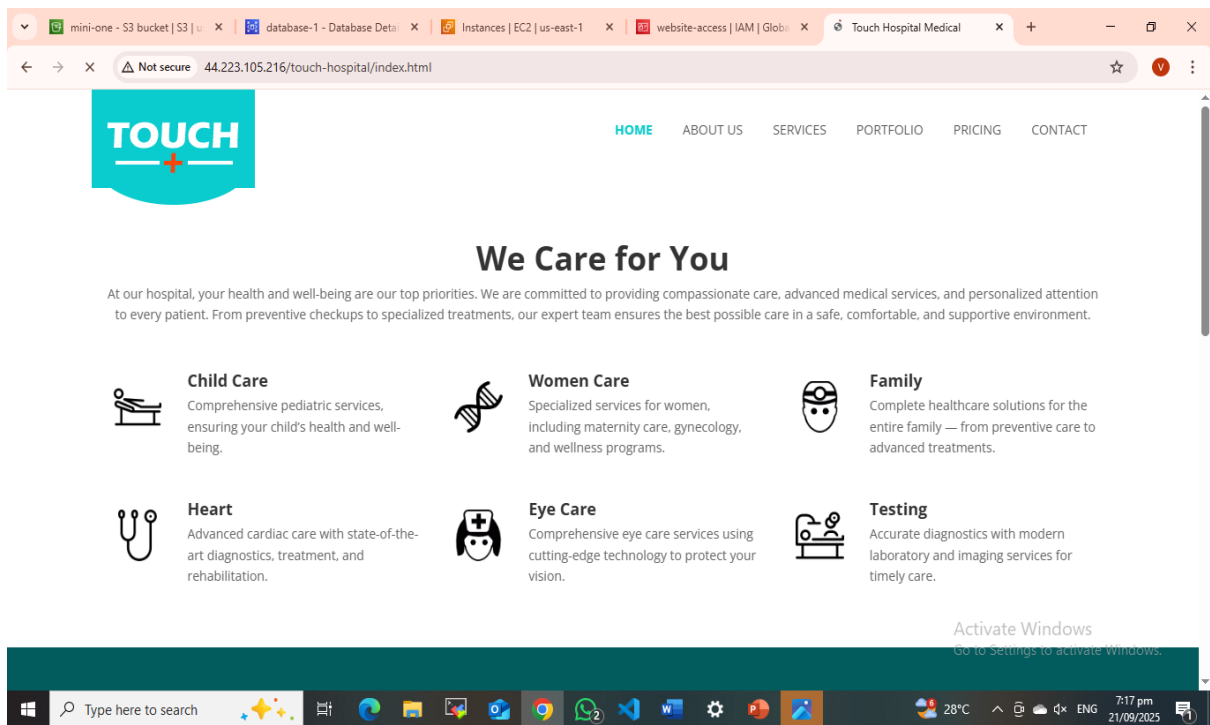


## **Implementation:-**

Firstly, we develop a website that can helps to patients spend less time waiting and letting doctors focus more on care and peoples know the treatment details through the website. The website's static content, such as HTML, CSS and JavaScript.



```
2 <html lang="en">
22 <body>
23 <div id="wrapper">
59 <section id="content">
60 <div class="container content">
64 <div class="col-md-12">
65 <div class="about-logo">
66 <h3>Our Services</h3>
67 <p>Online hospital medical services are digital healthcare solutions that enable patients to r
68 They encompass a wide range of offerings, including virtual consultations with doctors and s
69 <p>These services help improve healthcare accessibility, especially for p
70 Online hospital medical services play a vital role in modern healthcare by integrating te
71 </div>
72 <a href="#" class="btn btn-color">Read more</a>
73 </div>
74 <div class="row service-v1 margin-bottom-40">
75 <div class="col-md-4 md-margin-bottom-40">
76 
77 <h4>Teleconsultations</h4>
78 <p>Teleconsultations are virtual healthcare appointments where patients consult with medical pro
79 via video calls, phone calls, or online messaging platforms. This digital method allows patients to re
80 medical advice, diagnosis, treatment guidance,
81 and follow-up care without needing to visit a healthcare facility in person</p>
82 </div>
83 <div class="col-md-4">
84 
85 <h4>Electronic Health Records (EHR)</h4>
86 </div>
87 </div>
88 <p>EHRs enable healthcare providers to access accurate and up-to-date patient data quickly, impr
89 and patient safety. Patients can also access their health records through online portals, allowing the
90 monitor their health, review test results, and communicate with healthcare providers easily</p>
```



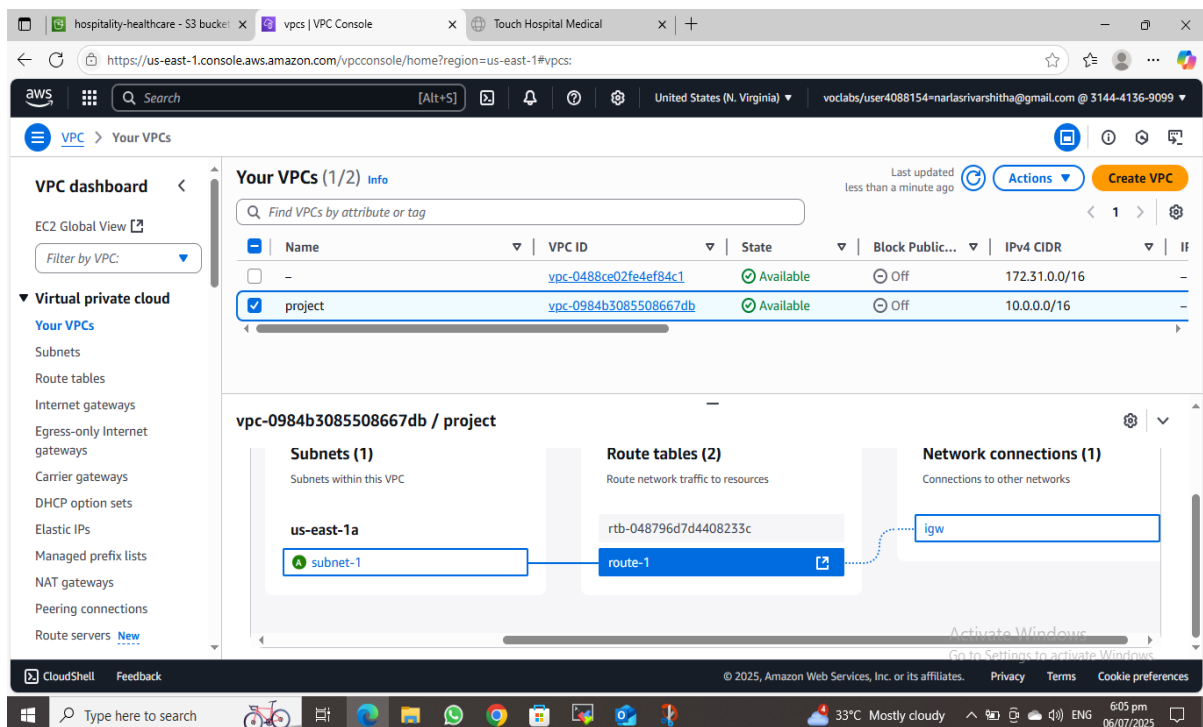
Then focus on cloud services for website reliability, scalability, and flexibility without buying our own physical servers. We can use some AWS services like-

## VPC:

Virtual Private Cloud creates a own private network. Isolate your cloud resources. Control network configurations securely.

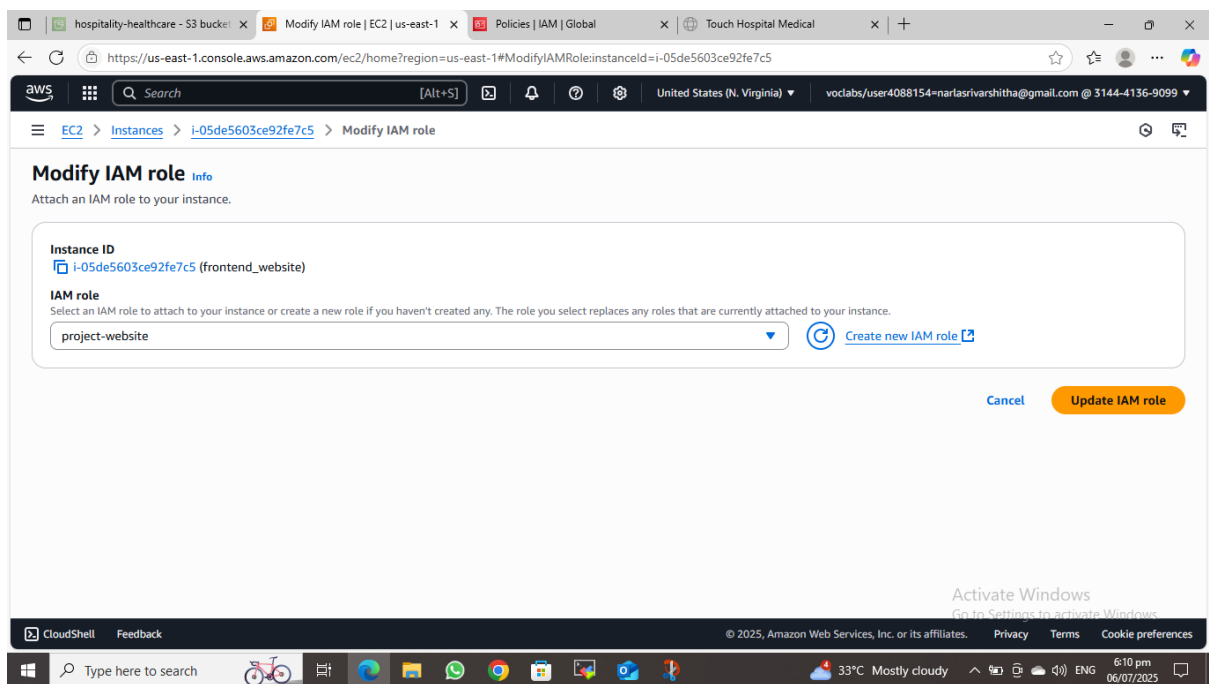
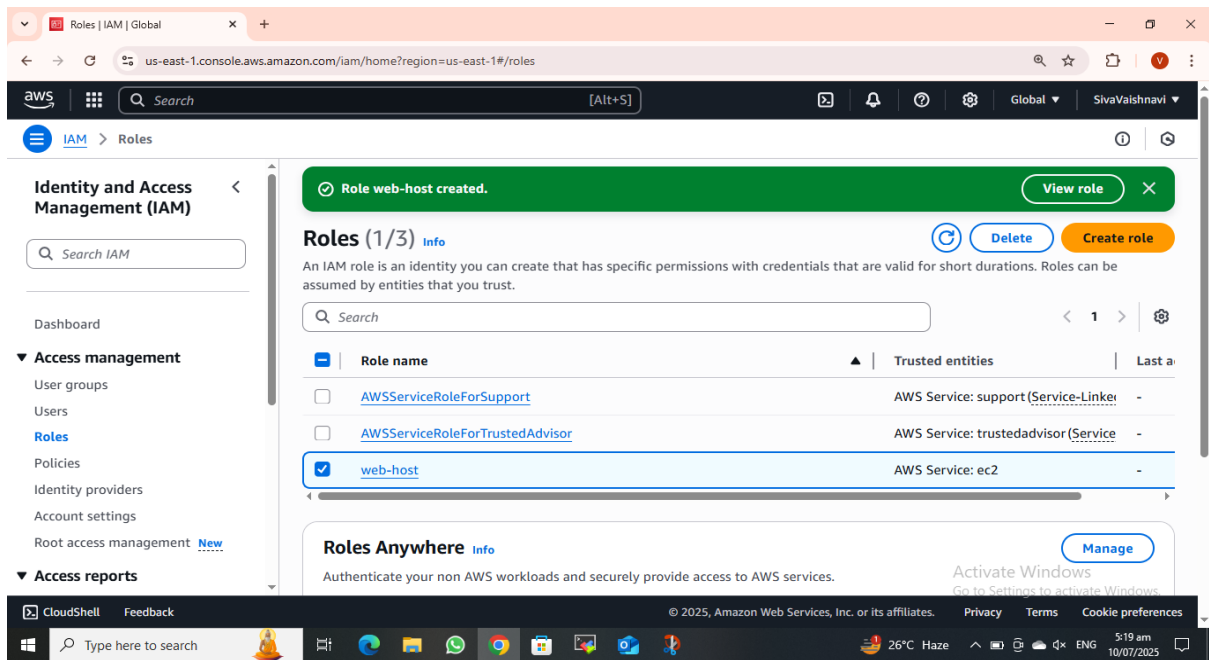
With VPC can control:

- **Subnets** → Public (accessible from the internet) or Private (internal only).
- **Internet Gateway (IGW)** → Connect VPC to the internet access.
- **Route Tables** → Control traffic flow.



## IAM:

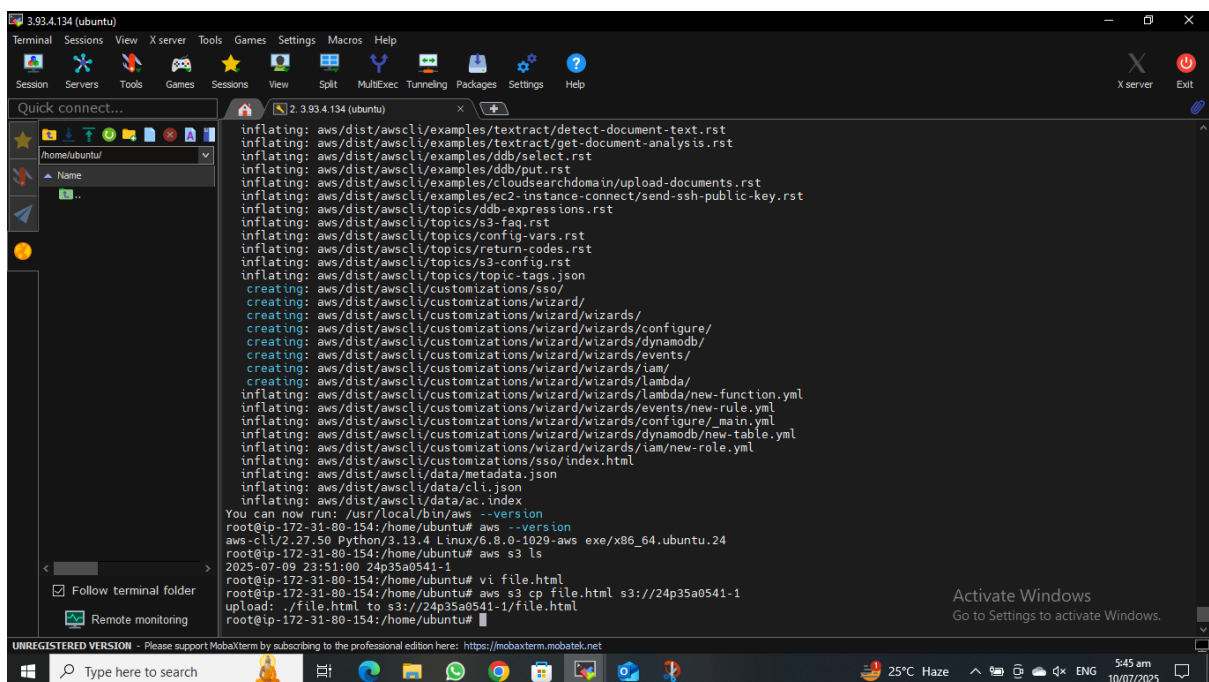
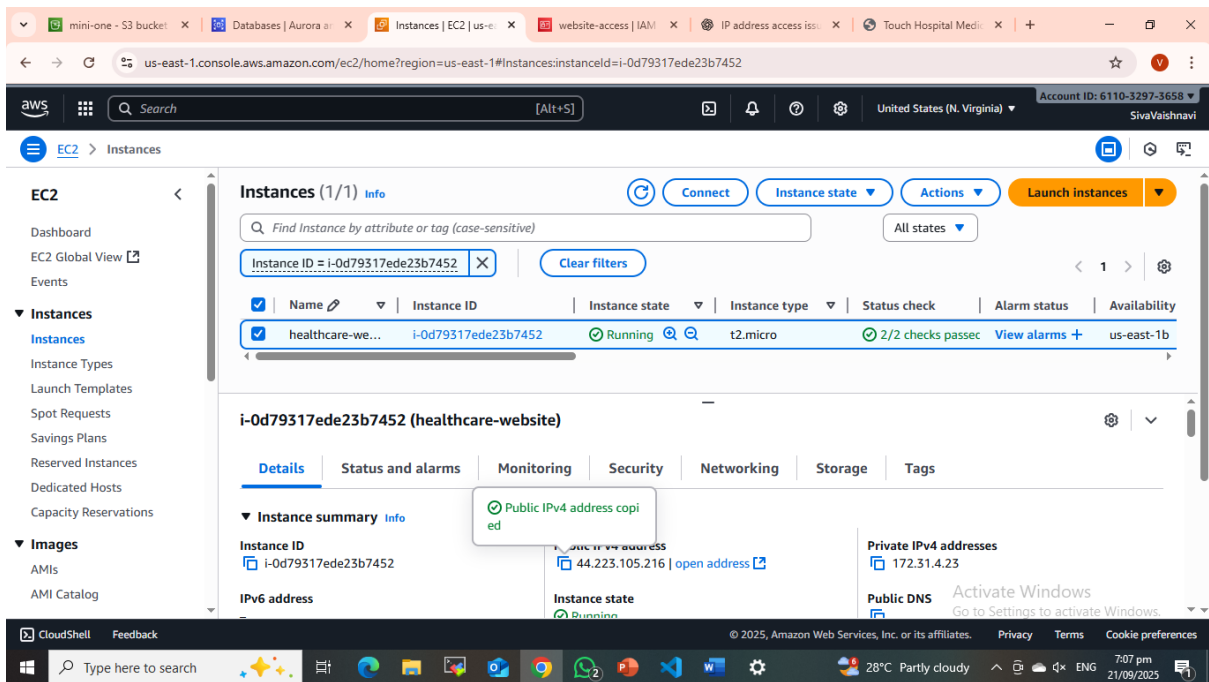
Manages user access and permissions securely. Allows creation of users, groups, and roles with specific access rights. Supports multi-factor authentication (MFA) for enhanced security. Create an **IAM User** with EC2 permissions. Attach IAM **Policies** like **AmazonEC2FullAccess**. Attach **AmazonS3ReadOnlyAccess** role to EC2.



## EC2-Instance:

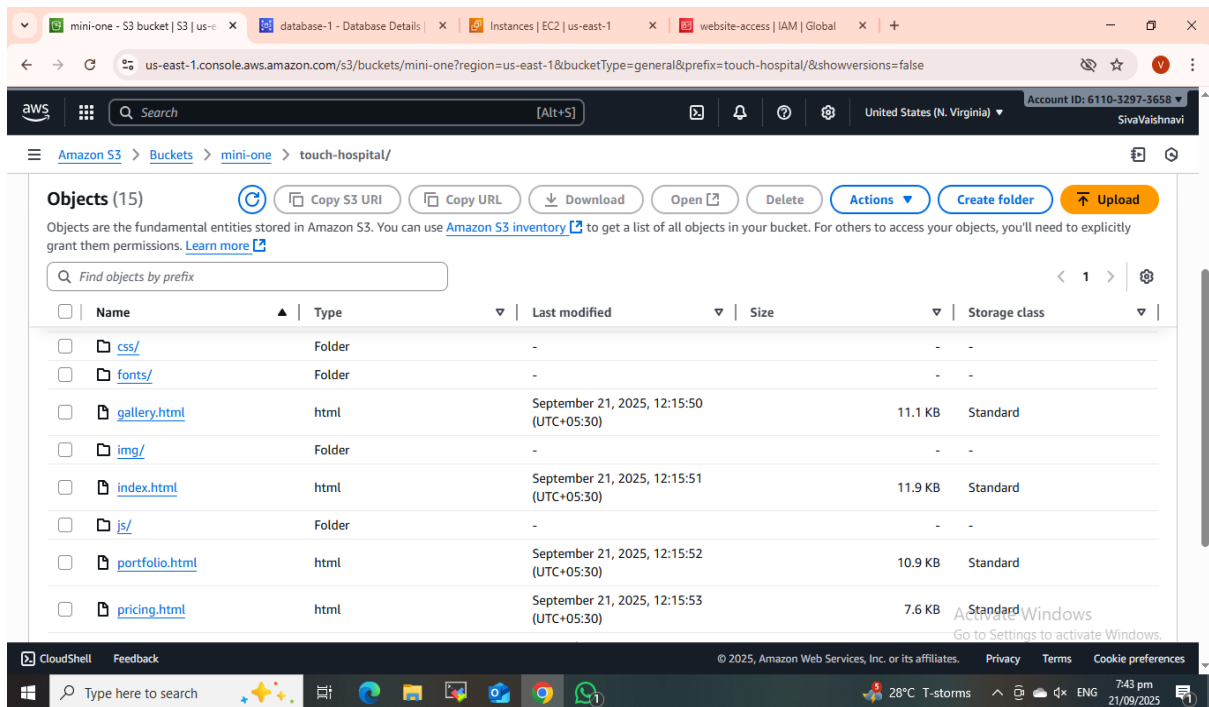
Elastic Compute Cloud provides virtual servers and scalable computing capacity. Run your applications on demand. Pay only for what you use.

Launch an EC2 instance inside a **public subnet** of my VPC. Use a **security group** to allow port 22 (SSH) and 80 (HTTP).

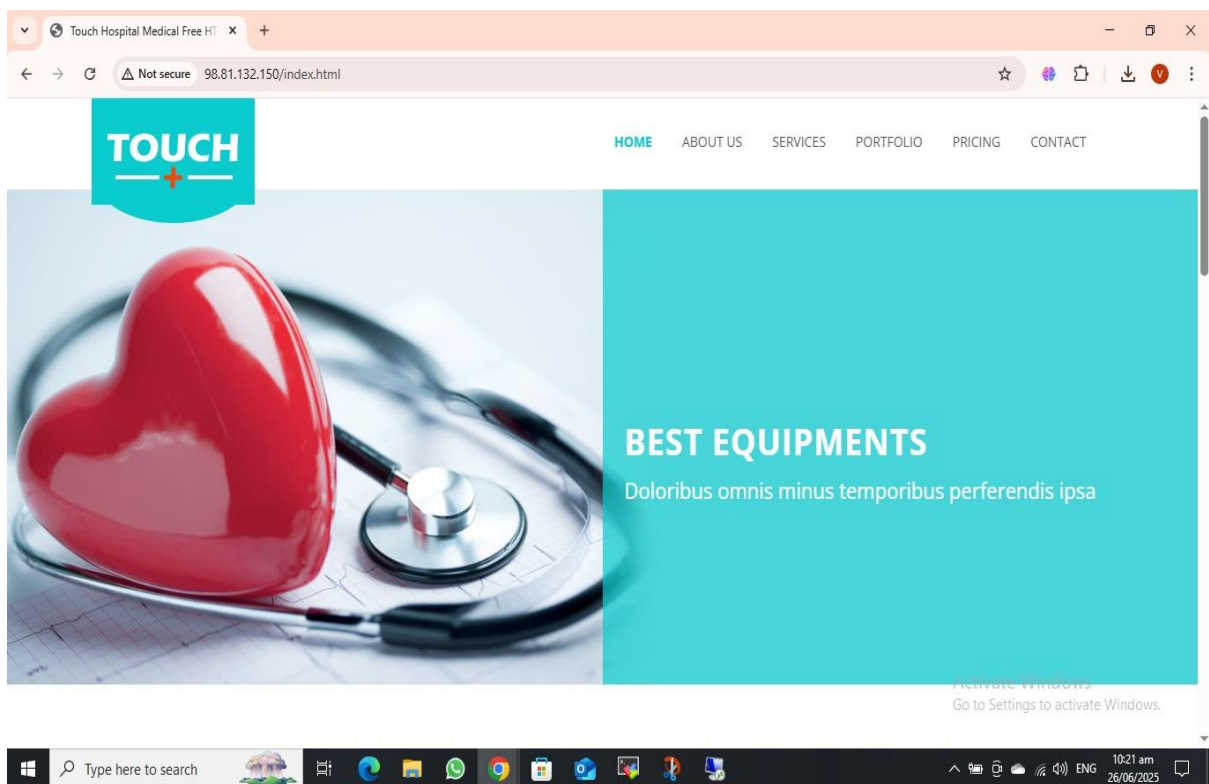


### S3:

Simple Storage Service offers secure data storage. Store website assets and guest data. It is highly durable and available. It can store objects directly that can upload website folder or files and images on s3 bucket Control the upload bucket using **IAM policies**.



Now applications running on EC2 can access S3 buckets directly.



## Elastic Load Balancing:

Distributes incoming traffic across multiple EC2 instances. Distributes incoming traffic across multiple EC2 instances or IPs. ELB must be inside a VPC. Connected to subnets and routes traffic to EC2 in those subnets.

## Elastic Block Store:

Block-level storage attached to **EC2** instances. EBS volumes are tied to EC2 instances inside a VPC (same Availability Zone). IAM policies decide who can create/attach/delete EBS volumes. AmazonEC2FullAccess also includes EBS permissions.

## Relational Database Service:

Managed database service (MySQL). It handles backups, patching, replication on website database. RDS always runs inside a **VPC subnet**. It can be **public** (internet-accessible) or **private** (internal only). IAM manages who can create/manage RDS resources.

The screenshot shows the AWS Management Console interface for setting up an EC2 connection to an RDS database. The breadcrumb navigation indicates the path: Aurora and RDS > Databases > Set up EC2 connection. The current step is 'Review and confirm'.

**Connection summary** info

You are setting up a connection between RDS database **database-1** and EC2 instance **i-02738f4eed48ab0c8**.

To set up a connection between the database and the EC2 instance, VPC security group **rds-ec2-2** is added to the database, and VPC security group **ec2-rds-2** is added to the EC2 instance.

VPC: vpc-0f831962abea528d7 (my-vpc)

Security group: **rds-ec2-2** (connection rule)

Security group: **ec2-rds-2** (connection rule)

The diagram shows an RDS instance labeled 'database-1' with 'Port: 0' connected to an EC2 instance labeled 'i-02738f4eed48ab0c8'. A double-headed arrow indicates the connection between the two security groups.

CloudShell Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

32°C 11:56 am 09/07/2025



mini-one - S3 bucket x database-1 - Databa x Instances | EC2 | us-e x website-access | IAM x IP address access iss x Touch Hospital Medi x + -

us-east-1.console.aws.amazon.com/rds/home?region=us-east-1#database-id=database-1;is-cluster=false

Search [Alt+S] United States (N. Virginia) Account ID: 6110-3297-3658 SivaVaishnavi

Aurora and RDS > Databases > database-1

**Aurora and RDS**

- Dashboard
- Databases**
- Query editor
- Performance insights
- Snapshots
- Exports in Amazon S3
- Automated backups
- Reserved instances
- Proxies

Subnet groups  
Parameter groups  
Option groups  
Custom engine versions  
Zero-ETL integrations [New](#)

**database-1**

**Summary**

<b>DB identifier</b> database-1	<b>Status</b> Available	<b>Role</b> Instance	<b>Engine</b> MySQL Community
<b>CPU</b> 3.07%	<b>Class</b> db.t4g.micro	<b>Current activity</b> 0 Connections	<b>Region &amp; AZ</b> us-east-1b

**Recommendations**

**Connectivity & security** | Monitoring | Logs & events | Configuration | Zero-ETL integrations | Maintenance

**Connectivity & security**

<b>Endpoint &amp; port</b> <b>Endpoint</b> database-1.cytqsk8kil00.us-east-1.rds.amazonaws.com	<b>Networking</b> <b>Availability Zone</b> us-east-1b <b>VPC</b>	<b>Security</b> <b>VPC security groups</b> default (sg-0d7ea2072f5087965) Active
--	---	---

Activate Windows  
Go to Settings to activate Windows.

CloudShell Feedback

© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

28°C 7:12 pm 21/09/2025

awsdocm[1].pdf x Touch Hospital Medical x +

C:\Varshi\projects\touch-hospital-medical-bootstrap-html5-template\contact.html

here to help you every step of the way.

- Our team is available 24/7 to assist you with any medical queries or emergencies.
- Visit us, call, or drop a message — your well-being matters to us.

**Contact Form**

**Name\***  
Giri

**Email\***  
varshi@gmail.com

**Message\***  
Stomach pain

**Thank You!**  
Your message has been sent successfully. We will get back to you shortly.

Secunderabad  
Touch Hospital Medical  
Hyderabad, India

Map data ©2025 | Terms | Report a map error.



The screenshot shows a MobaXterm terminal window with a dark theme. The terminal is connected to a remote host with IP 18.207.165.33 (Ubuntu). The MySQL server version is 8.0.41. The user is logged in as 'root'. The terminal shows the following commands and output:

```
mysql> create database myDB;
Query OK, 1 row affected (0.02 sec)

mysql> create table users(name varchar(20),mail varchar(25),message text);
ERROR 1046 (3D000): No database selected
mysql> create table users(name varchar(20),mail varchar(25),message TEXT);
ERROR 1046 (3D000): No database selected
mysql> use myDB
Database changed
mysql> create table users(name varchar(20),mail varchar(25),message TEXT);
Query OK, 0 rows affected (0.05 sec)

mysql> insert into users(name,mail,message) values('HARI','vaish@gmail.com','Head ache');
Query OK, 1 row affected (0.00 sec)

mysql> insert into users(name,mail,message) values('GIRI','varshi@gmail.com','Stomach pain');
Query OK, 1 row affected (0.01 sec)

mysql> select * from users;
+-----+-----+-----+
| name | mail | message |
+-----+-----+-----+
| HARI | vaish@gmail.com | Head ache |
| GIRI | varshi@gmail.com | Stomach pain |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

The terminal window also shows a file explorer on the left with a folder named 'touch-hospital'. The bottom status bar indicates the system is at 35°C, partly sunny, and the date is 11/07/2025.

## Conclusion:

The successful implementation of the Touch Hospital Website using AWS cloud services demonstrates the power and flexibility of a fully serverless, cloud-native architecture in delivering modern healthcare services. The combination of Amazon S3, VPC, IAM, RDS and EC2 provided an end-to-end infrastructure that is:

- **Secure:** Enforced with role-based access control, encryption and HTTP traffic.
- **Reliable:** Ensures high uptime with global CDN distribution and monitoring.
- **Cost-Effective:** Operates on a pay-as-you-go model, eliminating upfront infrastructure costs.

This project not only modernizes the patient experience by offering seamless online access to appointments and hospital information but also reduces operational costs and IT overhead for healthcare providers.

