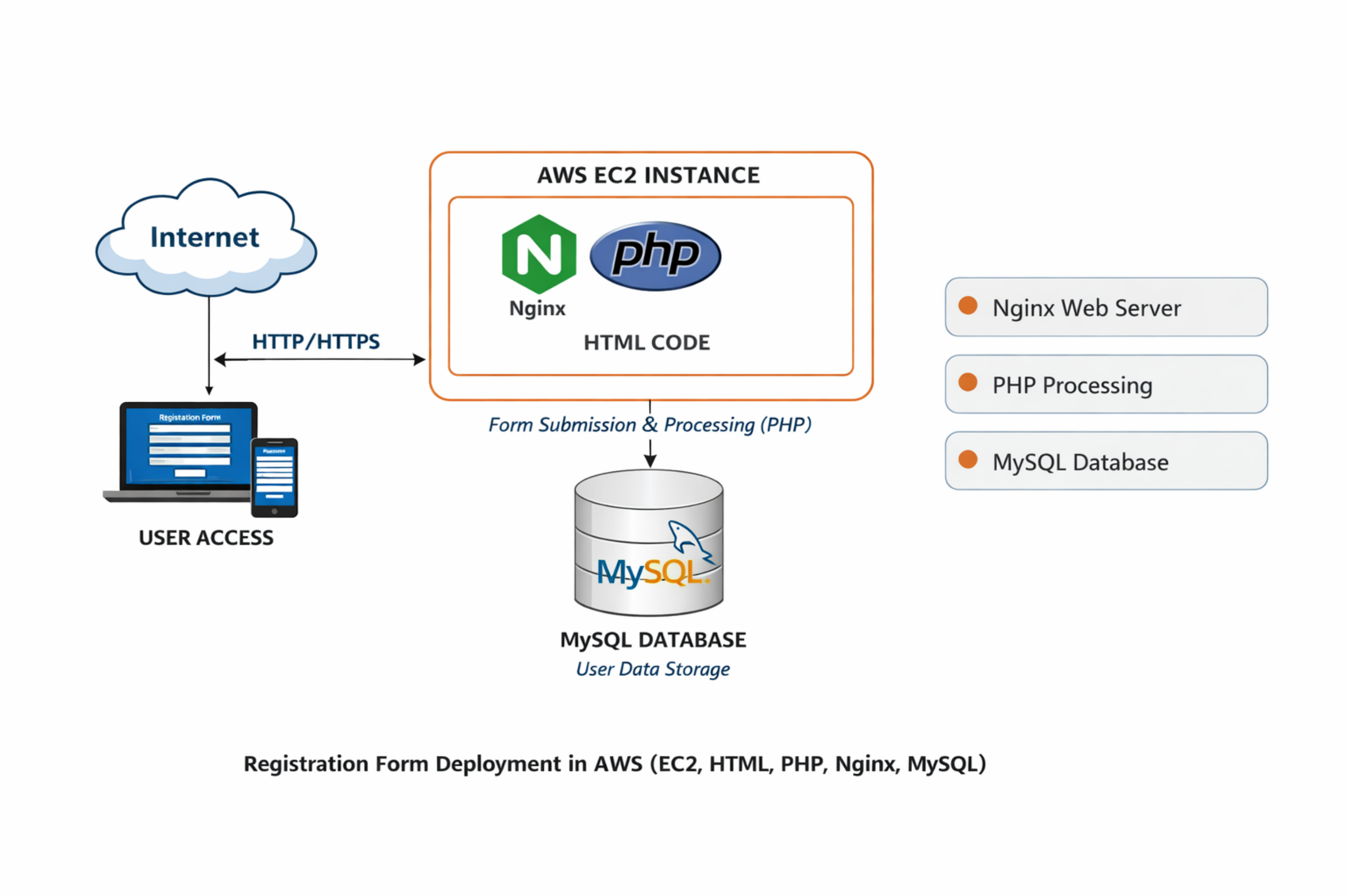
Registration Form Deployment

Introduction

Cloud computing enables on-demand access to computing resources over the internet. Amazon Web Services (AWS) is one of the most widely used cloud platforms. In this project, a simple user registration system is deployed on AWS using EC2, HTML, PHP, Nginx, and MySQL.

Architecture of Registration Form Deployment :



Registration Form Deployment in AWS (EC2, HTML, PHP, Nginx, MySQL)

Project Objective:

This project focuses on deploying a Registration Form web application on AWS. It helps beginners understand cloud hosting, EC2 instance setup, and web server configuration. By completing this project, users learn how to make a static web app publicly accessible while following basic security practices.

Technologies Used.

AWS EC2 – Amazon Web Service

Linux OS – Server operating system

Nginx – Web server

HTML – Frontend design

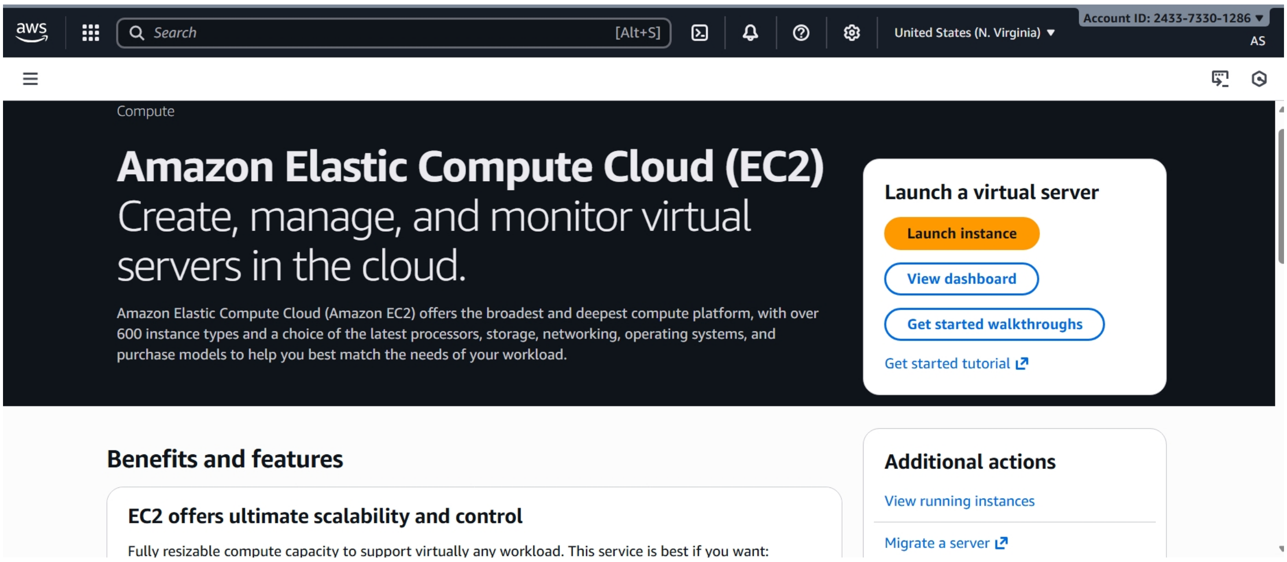
PHP – Backend processing ((with PHP-FPM))

MySQL (MariaDB) – Database

Project Implementation Details:

1. Launch AWS EC2 Instance

- Create an EC2 instance form the AWS Management Console.
- Chose Amzone Linux as AMI
- Configure Security gropus to allow: HTTP (Port 80) HTTPS (Port 443) SSH (Port 22)



Compute

Amazon Elastic Compute Cloud (EC2)

Create, manage, and monitor virtual servers in the cloud.

Amazon Elastic Compute Cloud (Amazon EC2) offers the broadest and deepest compute platform, with over 600 instance types and a choice of the latest processors, storage, networking, operating systems, and purchase models to help you best match the needs of your workload.

Launch a virtual server

Benefits and features

EC2 offers ultimate scalability and control

Fully resizable compute capacity to support virtually any workload. This service is best if you want:

Additional actions

2. Launch EC2 Instance

```
* Create an EC2 instance using Amazon Linux or Ubuntu

* Instance Type : t3.micro(Free Tier)
* Create or select a Key Pair
* Configure Security Group
```

3. Connect to EC2 Instance :

- ssh -i key.pem ec2-user@< Public-IP >

4. Update Server Packages :

- Update the system to install latest packages.
- sudo yum update -y

5.Install Requirement Softwares :

- sudo yum install nginx mariadb-server php-fpm -y
- sudo systemctl start nginx mariadb-server php-fpm
- sudo systemctl enable nginx mariadb-server php-fpm

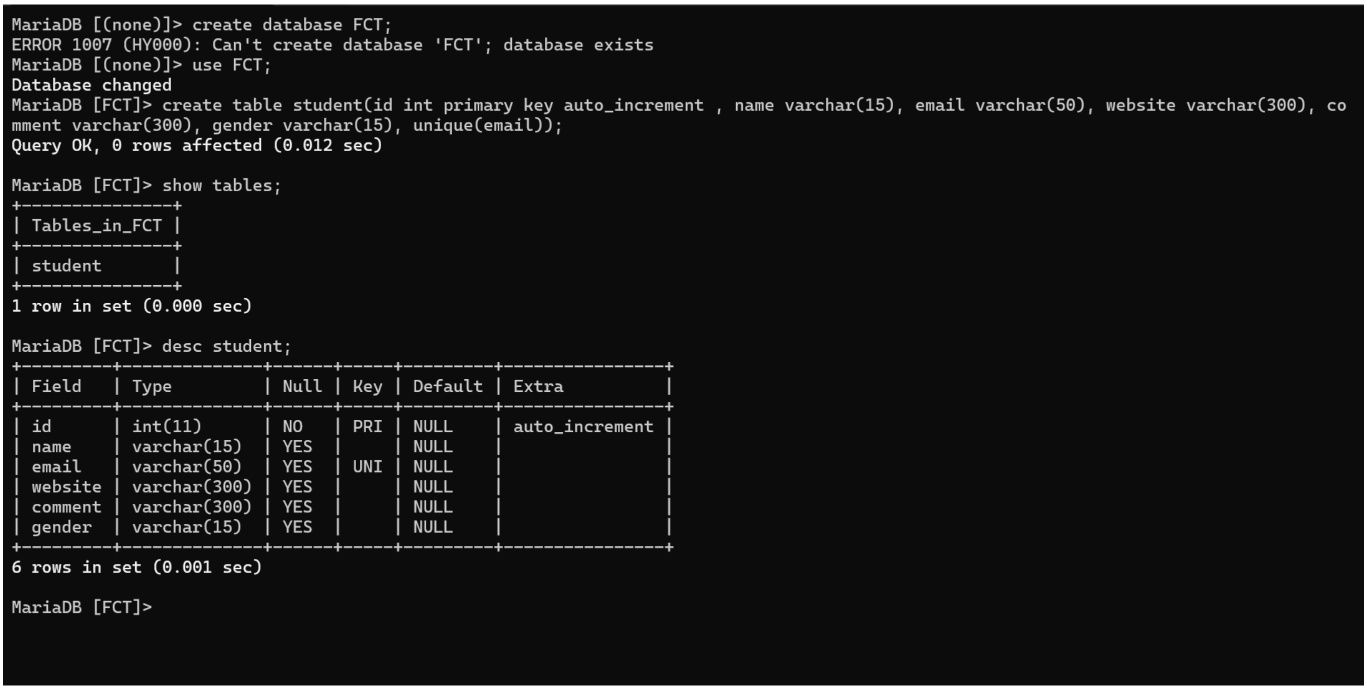
*** PHP and HTML have been used in this project.**

- Cd /usr/share/nginx/html/index.html
- sudo vim sighnup.html
- sudo vim submit.php

6: Create Database & Table

- A database is a structured place to store data (tables, rows, columns). The SQL command CREATE DATABASE is used to create a new database in a Database Management System (DBMS) such as MySQL, PostgreSQL, SQL Server, or Oracle.

```
* mysql -u root -p

* alter user root@localhost identified by 'root';

* create Database FCT;

* use FCT;

* create table student(id int primary key
  auto_increment , name varchar(15), email varchar(50),   website varchar(300),
comment varchar(300), gender varchar(15), unique(email));
```



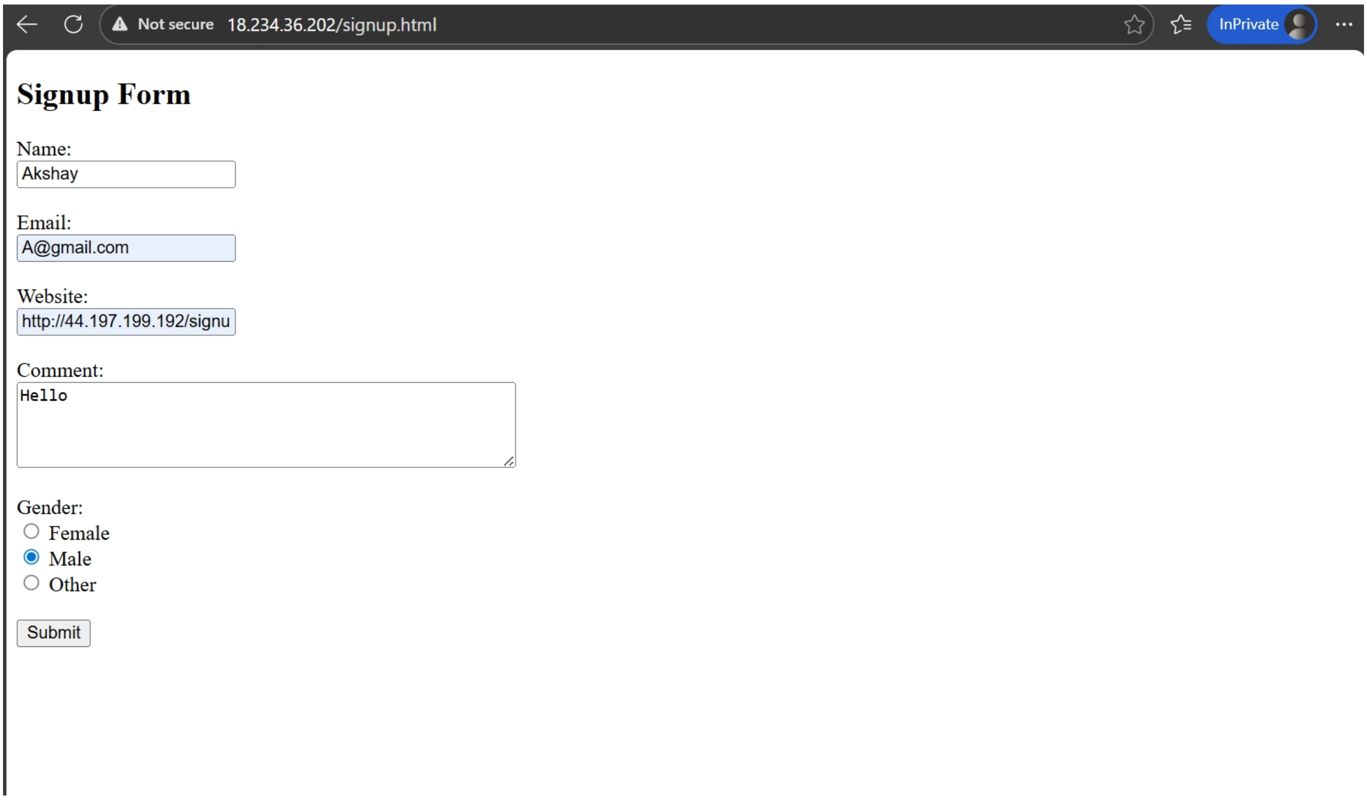
```
MariaDB [(none)]> create database FCT;
ERROR 1007 (HY000): Can't create database 'FCT'; database exists
MariaDB [(none)]> use FCT;
Database changed
MariaDB [FCT]> create table student(id int primary key auto_increment , name varchar(15), email varchar(50), website varchar(300), co
mment varchar(300), gender varchar(15), unique(email));
Query OK, 0 rows affected (0.012 sec)

MariaDB [FCT]> show tables;
+---------------+
| Tables_in_FCT |
+---------------+
| student       |
+---------------+
1 row in set (0.000 sec)

MariaDB [FCT]> desc student;
+---------+--------------+------+-----+---------+----------------+
| Field   | Type         | Null | Key | Default | Extra          |
+---------+--------------+------+-----+---------+----------------+
| id      | int(11)      | NO   | PRI | NULL    | auto_increment |
| name    | varchar(15)  | YES  |     | NULL    |                |
| email   | varchar(50)  | YES  | UNI | NULL    |                |
| website | varchar(300) | YES  |     | NULL    |                |
| comment | varchar(300) | YES  |     | NULL    |                |
| gender  | varchar(15)  | YES  |     | NULL    |                |
+---------+--------------+------+-----+---------+----------------+
6 rows in set (0.001 sec)

MariaDB [FCT]>
```

7.Restart all the services :

```
* sudo systemctl restart nginx
* sudo systemctl restart mariadb
* sudo systemctl restart php-fpm
```

8. Deployment Registration Form Complete :

*** Output:**



Not secure 18.234.36.202/signup.html

InPrivate

Signup Form

Name:
Akshay

Email:
A@gmail.com

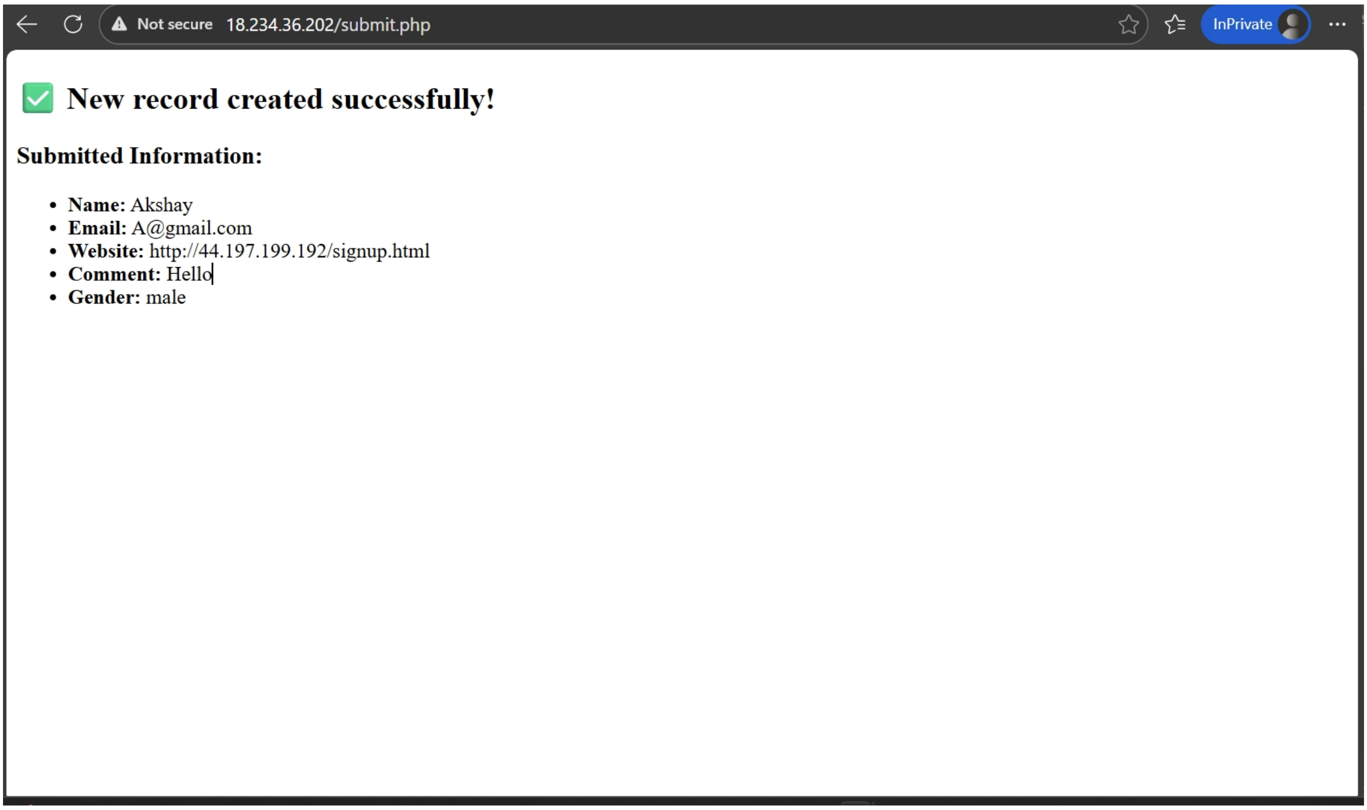
Website:
http://44.197.199.192/signu

Comment:
Hello

Gender:
○ Female
● Male
○ Other

Submit

IP - https://18.234.36.202/submit.php



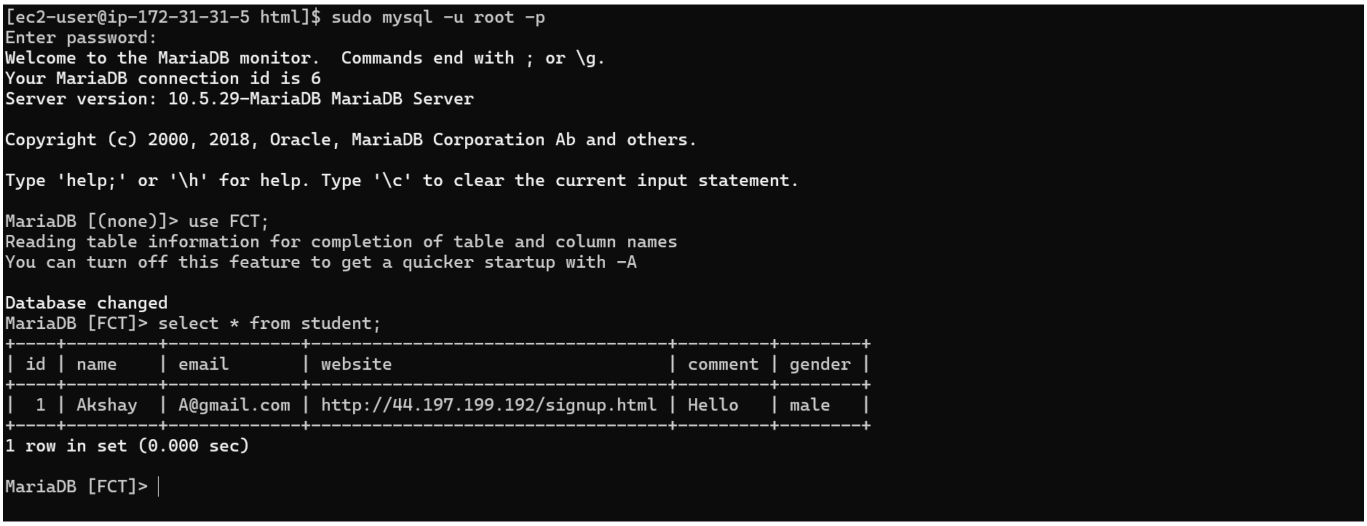
✅ **New record created successfully!**

Submitted Information:

- **Name:** Akshay
- **Email:** A@gmail.com
- **Website:** http://44.197.199.192/signup.html
- **Comment:** Hello
- **Gender:** male

9.Verify Data in Database

- Check MySQL table to confirm data is stored.



```
[ec2-user@ip-172-31-31-5 html]$ sudo mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 6
Server version: 10.5.29-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> use FCT;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
MariaDB [FCT]> select * from student;
+----+---------+-------------+------------------------------------+---------+--------+
| id | name    | email       | website                            | comment | gender |
+----+---------+-------------+------------------------------------+---------+--------+
|  1 | Akshay  | A@gmail.com | http://44.197.199.192/signup.html  | Hello   | male   |
+----+---------+-------------+------------------------------------+---------+--------+
1 row in set (0.000 sec)

MariaDB [FCT]> |
```

Conclusion:

- This project deploys a Registration Form web application on AWS using an EC2 instance with Nginx, HTML, PHP, and MySQL. It demonstrates basic cloud deployment, server configuration, and database integration. The project provides hands-on experience with real-world AWS web hosting and security basics.