

Twitter Clone - AWS EC2 Deployment Summary (Frontend + Backend)

1. Create EC2 Instance (Free Tier)

- Chose Ubuntu 24.04 LTS
- Created and downloaded .pem key pair (e.g., twitter-key.pem)
- Allowed ports: initially SSH (22) only
- Launched instance and noted down public IPv4 (e.g., 13.202.22.78)

2. SSH into EC2

```
ssh -i "C:/Users/PoojaRavindraChaudha/Downloads/twitter-key.pem" ubuntu@13.202.22.78
```

3. Install PostgreSQL

```
sudo apt update
```

```
sudo apt install postgresql postgresql-contrib
```

```
sudo -i -u postgres
```

```
psql
```

PostgreSQL Setup:

```
ALTER USER postgres WITH PASSWORD 'newpassword';
```

```
CREATE DATABASE twitter OWNER postgres;
```

```
\q
```

```
exit
```

4. Install Node.js + Git

```
sudo apt install nodejs npm git
```

```
node -v
```

```
npm -v
```

5. Clone Project from GitHub

```
git clone https://github.com/pooja-chaudhari1227/Twitter_clone.git
```

6. Start the Backend

```
cd Twitter_clone/backend
```

```
nano .env
```

```
npm install
```

```
npm start
```

7. Install and Configure PM2

```
sudo npm install -g pm2
```

```
pm2 start server.js --name twitter-backend
```

```
pm2 status
```

```
pm2 startup
```

```
# Run the command shown by pm2 startup
```

```
pm2 save
```

8. Open Required Ports in AWS Security Group

- Port 22 -> SSH

- Port 80 -> Frontend

- Port 3000 -> Backend API

9. Build and Deploy Frontend

```
cd ../frontend
```

```
npm install
```

```
npm run build
```

Copy Build to Nginx Directory:

```
sudo rm -rf /var/www/html/*
```

```
sudo cp -r build/* /var/www/html/
```

```
sudo systemctl restart nginx
```

10. Fix Nginx to Support React Routing

```
sudo nano /etc/nginx/sites-available/default
```

```
location / {
```

```
    try_files $uri /index.html;
```

```
}
```

```
sudo systemctl reload nginx
```

11. CORS Fix for Backend

In server.js or index.js:

```
app.use(cors({  
  origin: 'http://13.202.22.78',  
  methods: ['GET', 'POST', 'PUT', 'DELETE', 'OPTIONS'],  
  allowedHeaders: ['Content-Type', 'Authorization']  
}));
```

```
pm2 restart twitter-backend
```

12. Final Result

- Frontend: <http://13.202.22.78>
- Backend API: <http://13.202.22.78:3000/api/...>
- PM2 keeps backend alive
- Nginx supports React routing

Optional Next Steps:

- Nginx reverse proxy for cleaner URLs
- Enable HTTPS with Let's Encrypt
- Use a custom domain
- Automate deployment with GitHub Actions