**Smart Finance Hub - Documentation**

**Student Name:** Kevin Khetvani  
**Student ID:** 35431769  
**IP Address:** 13.53.219.150  
**Domain:** smartfinancehub.guru

**1. Create an AWS Account and launch Ubuntu Server**

* Signed up at [aws.amazon.com](https://aws.amazon.com/)
* Navigated to **EC2** and launched an instance:
  + Selected **Ubuntu 24.04 LTS**
  + Chose **t2.micro (Free Tier)**
  + Created a **new key pair** for SSH access
  + Configured security group to allow **ports 22 (SSH), 80 (HTTP), 443 (HTTPS)**
  + Launched the instance

**2. Connect to Lubuntu Server via SSH**

* On local terminal:

chmod 400 your-key.pem

ssh -i "your-key.pem" ubuntu@your-ec2-public-ip

**3. Install Apache Web Server**

sudo apt update && sudo apt upgrade -y

sudo apt install apache2 -y

sudo ufw allow 'Apache Full'

sudo ufw enable

**4. Upload and Deploy Website Content**

* Created the website using HTML and CSS
* Transferred files via SCP or directly edited using nano:

sudo nano /var/www/html/index.html

* Confirmed site at: http://your-ec2-public-ip

**5. Register a Domain Name**

* Purchased smartfinancehub.guru from **GoDaddy**

**6. Configure DNS with AWS Route 53**

* Created a **Hosted Zone** in Route 53 for the domain
* Copied the nameservers (e.g. ns-332.awsdns-41.com etc.)
* Updated nameservers in GoDaddy DNS settings (removed trailing dots)

**7. Create DNS Records**

* In Route 53:
  + Created an **A record** for smartfinancehub.guru pointing to EC2 IP

**8. Secure the Website with SSL (Certbot)**

* Installed Certbot:

sudo apt install certbot python3-certbot-apache -y

* Requested and configured SSL:

sudo certbot --apache -d smartfinancehub.guru -d www.smartfinancehub.guru

* Verified padlock appears at: https://smartfinancehub.guru

**9. Enable Auto-Renewal for SSL**

sudo certbot renew --dry-run

**Tools and Technologies Used**

| **Tool** | **Purpose** |
| --- | --- |
| AWS EC2 | Virtual hosting for website |
| Lubuntu 22.04 LTS | Server OS |
| Apache2 | Web server |
| AWS Route 53 | DNS management |
| GoDaddy | Domain registrar |
| Certbot (Let's Encrypt) | SSL/HTTPS encryption |
| HTML/CSS/JS | Website content and interaction |