

**10-July-2024**

## **Training Day - 12 Report:**

### **Learned About SSL Certificates and Securing Websites with HTTPS**

#### **1. Understanding SSL Certificates:**

- SSL (Secure Sockets Layer) certificates encrypt data between the user's browser and the web server, ensuring secure communication and privacy.

#### **2. Installed Certbot on the College Server Using Snap:**

- **Ensure Snap is Installed:**

```
sudo apt update  
sudo apt install snapd
```

- **Install Certbot:**

```
sudo snap install --classic certbot
```

#### **3. Obtained SSL Certificates and Enabled HTTPS:**

- **Run Certbot to Obtain SSL Certificates:**

```
sudo certbot --apache
```

- **Follow Interactive Prompts:**

- Enter email for renewal notifications.
- Agree to terms and select domains to activate HTTPS.

- **Enable HTTPS on Apache:**

- Certbot automatically configures Apache to serve the site over HTTPS and updates the virtual host configuration.

- **Verify HTTPS:**

- Visit `https://example.com` and check for a padlock icon in the browser's address bar to confirm the SSL certificate is active.

#### **4. Automatic Renewal:**

- Certbot automatically renews SSL certificates. To test renewal:
- `sudo certbot renew --dry-run`