# **TEAM 2.3**

# **Web Application Penetration Testing**

# **TEAM MEMBERS**

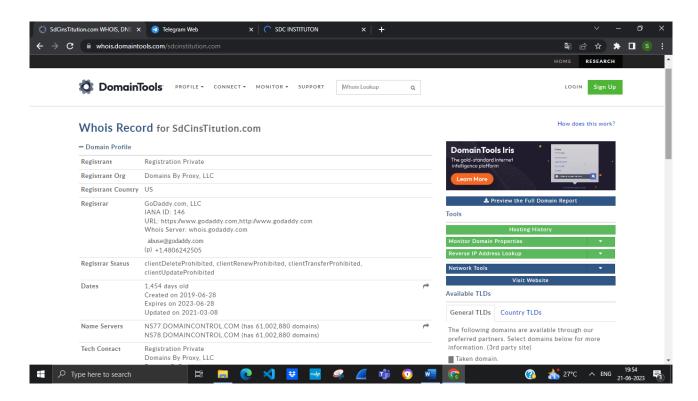
- PRATHEESH KUMAR N 20BCI0195
- SANDHIYA N 20BCI0196
- MUKUNDHAN D 20BCI0291

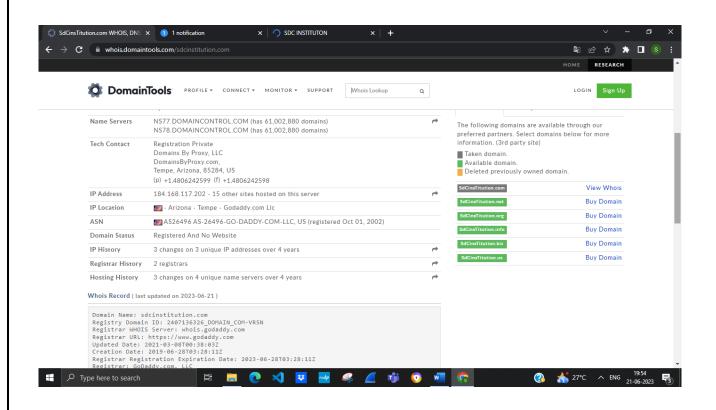
Target/Main: www.sdcinstitution.com

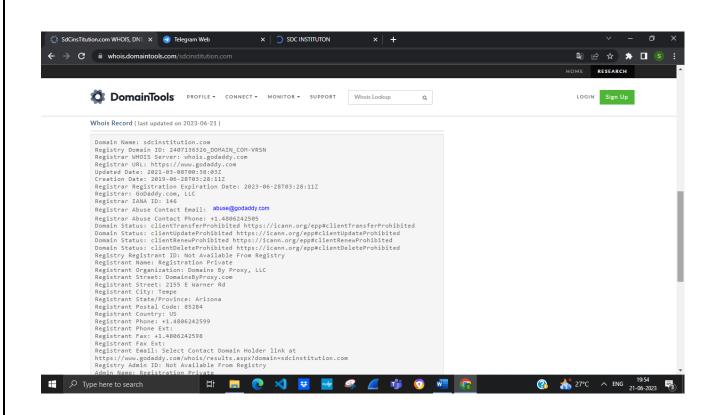
## 1. Information Gathering Reconnaissance:

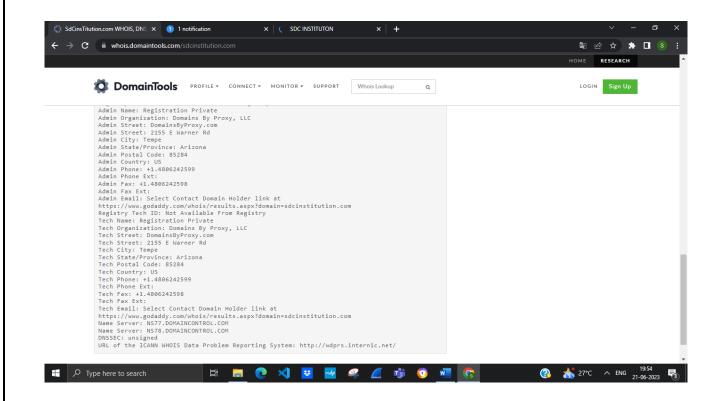
## **Passive Reconnaissance:**

Tool used: whois







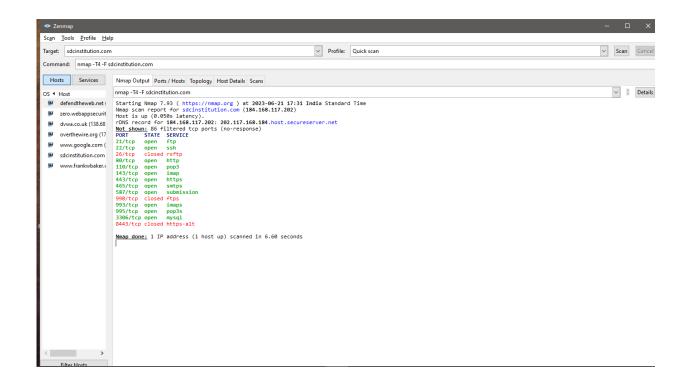


# 2. Active Reconnaissance:

Tool used: nmap

# **Port Scanning:**

Scanning web target for open ports



Here there is the presence of 11 open ports uses and vulnerability of all 11 ports are mentioned below:

#### 1. Port 21/TCP (FTP - File Transfer Protocol):

- Vulnerabilities: Weak authentication mechanisms, plaintext transmission, potential for brute-force attacks.
- Uses: FTP servers for file transfers, commonly used in web development and file sharing.

#### 2. Port 22/TCP (SSH - Secure Shell):

- Vulnerabilities: Weak passwords, outdated SSH versions, SSH brute-force attacks.
- Uses: Secure remote administration and secure file transfers over a network.

## **3.Port 80/TCP (HTTP - Hypertext Transfer Protocol):**

- Vulnerabilities: Web application vulnerabilities (e.g., SQL injection, cross-site scripting), outdated software, misconfigured permissions.
- Uses: Standard port for web traffic, used for accessing websites and web services.

#### **4.Port 110/TCP (POP3 - Post Office Protocol version 3):**

- Vulnerabilities: Weak authentication, lack of encryption, potential for eavesdropping.
- Uses: Email retrieval from a mail server, commonly used by email clients.

## **5.Port 143/TCP (IMAP - Internet Message Access Protocol):**

- Vulnerabilities: Weak authentication, lack of encryption, potential for unauthorized access.
- Uses: Email retrieval and manipulation, commonly used by email clients.

# **6.Port 443/TCP (HTTPS - Hypertext Transfer Protocol Secure):**

- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak cipher suites.
- Uses: Encrypted web traffic using SSL/TLS, commonly used for secure transactions and sensitive data transfer.

#### 7.Port 465/TCP (SMTPS - Simple Mail Transfer Protocol Secure):

- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak authentication.
- Uses: Secure SMTP communication using SSL/TLS, commonly used for outgoing email delivery.

# 8.Port 587/TCP (Submission - Mail Submission Agent):

- Vulnerabilities: Weak authentication, lack of encryption, potential for unauthorized relaying.
- Uses: SMTP communication for email submission by mail clients, often used with STARTTLS for encryption.

#### 9.Port 993/TCP (IMAPS - Internet Message Access Protocol Secure):

- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak authentication.
- Uses: Encrypted email retrieval and manipulation using IMAP over SSL/TLS.

## 10.Port 995/TCP (POP3S - Post Office Protocol version 3 Secure):

- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak authentication.
- Uses: Secure email retrieval using POP3 over SSL/TLS.

## 11.Port 3306/TCP (MySQL - MySQL Database):

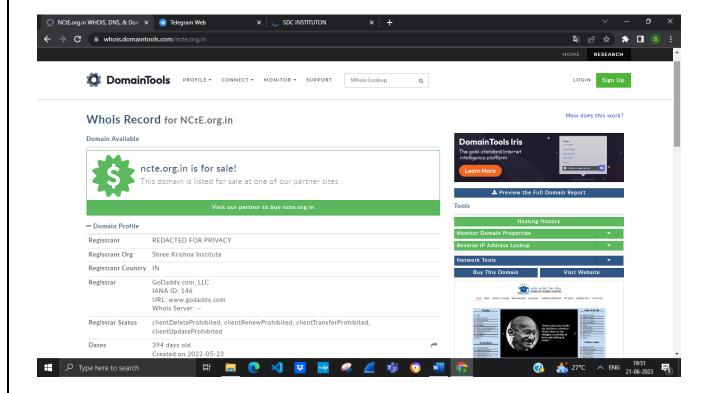
- Vulnerabilities: Weak or default credentials, SQL injection, remote code execution.
- Uses: Database server for MySQL, commonly used in web applications and content management systems.
- 12. It's important to note that these vulnerabilities and uses are not exhaustive, and there may be additional specific vulnerabilities based on the software and configurations in use on these ports. Regular security updates, strong authentication mechanisms, and encryption are crucial to mitigate these vulnerabilities.

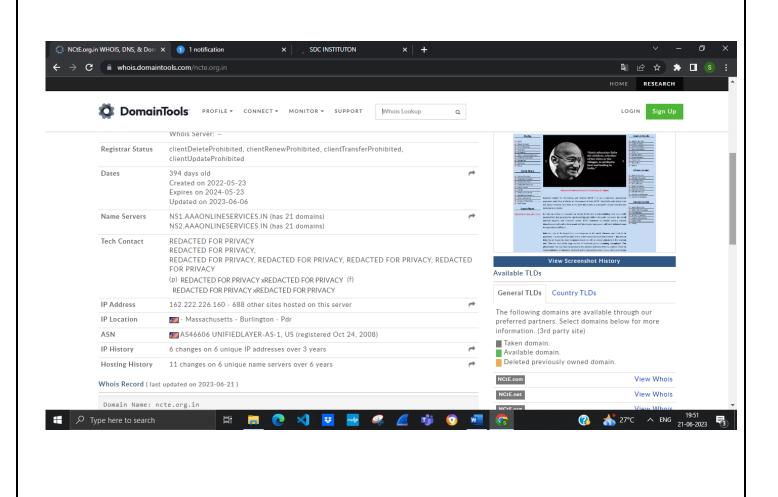
# Test/Practice website: https://ncte.org.in/

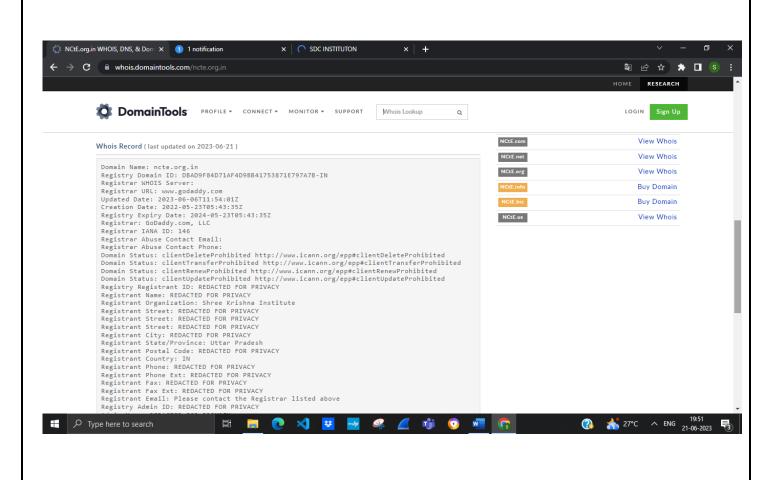
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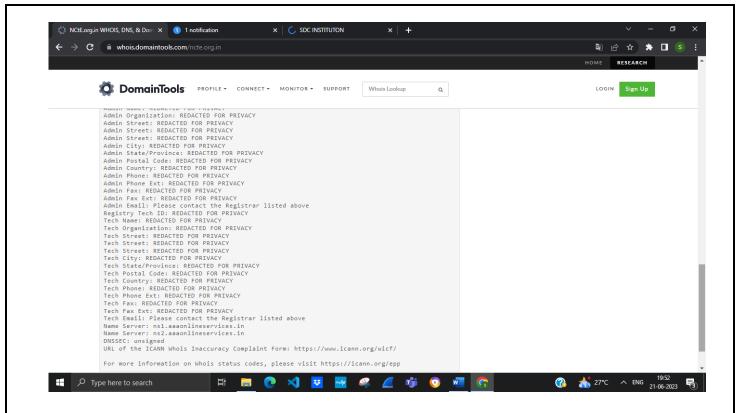
**Passive Reconnaissance:** 

**Tool used: whois** 







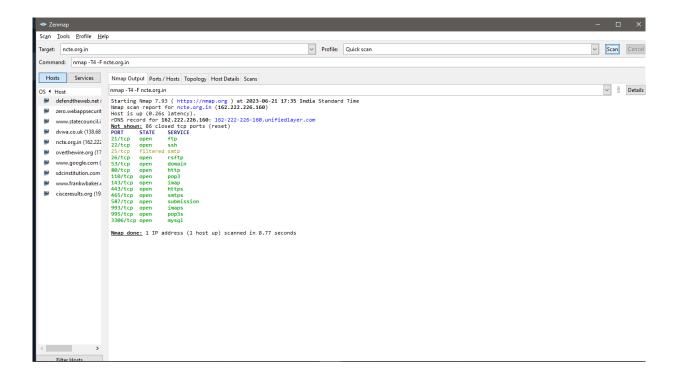


## 2. Active Reconnaissance:

Tool used: nmap

# **Port Scanning:**

Scanning web target for open ports



Here there is the presence of 13 open ports uses and vulnerability of all 13 ports are mentioned below:

#### 1.Port 21/TCP (FTP - File Transfer Protocol):

- Vulnerabilities: Weak authentication mechanisms, plaintext transmission, potential for brute-force attacks.
- Uses: FTP servers for file transfers, commonly used in web development and file sharing.

#### 2.Port 22/TCP (SSH - Secure Shell):

- Vulnerabilities: Weak passwords, outdated SSH versions, SSH brute-force attacks.
- Uses: Secure remote administration and secure file transfers over a network.

#### **3.Port 26/TCP:**

• This port is typically unassigned and doesn't have any specific vulnerabilities or uses associated with it. It's not commonly used for any particular service.

#### **4.Port 53/TCP (DNS - Domain Name System):**

- Vulnerabilities: DNS cache poisoning, DDoS attacks, zone transfer issues.
- Uses: DNS server communication for domain name resolution and mapping domain names to IP addresses.

## **5.Port 80/TCP (HTTP - Hypertext Transfer Protocol):**

- Vulnerabilities: Web application vulnerabilities (e.g., SQL injection, cross-site scripting), outdated software, misconfigured permissions.
- Uses: Standard port for web traffic, used for accessing websites and web services.

## **6.Port 110/TCP (POP3 - Post Office Protocol version 3):**

- Vulnerabilities: Weak authentication, lack of encryption, potential for eavesdropping.
- Uses: Email retrieval from a mail server, commonly used by email clients.

## 7.Port 143/TCP (IMAP - Internet Message Access Protocol):

• Vulnerabilities: Weak authentication, lack of encryption, potential for unauthorized access.

• Uses: Email retrieval and manipulation, commonly used by email clients.

# **8.Port 443/TCP (HTTPS - Hypertext Transfer Protocol Secure):**

- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak cipher suites.
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- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak authentication.
- Uses: Encrypted email retrieval and manipulation using IMAP over SSL/TLS.

### 12.Port 995/TCP (POP3S - Post Office Protocol version 3 Secure):

- Vulnerabilities: Exploitation of SSL/TLS vulnerabilities, weak authentication.
- Uses: Secure email retrieval using POP3 over SSL/TLS.

## 13.Port 3306/TCP (MySQL - MySQL Database):

- Vulnerabilities: Weak or default credentials, SQL injection, remote code execution.
- Uses: Database server for MySQL, commonly used in web applications and content management systems.

NOTE: SIR WE WOULD LIKE TO CHANGE THE TEST WEBSITE TO THE GIVEN LINK FOR THE BETTER MENT BECAUSE WE COULD FIND BETTER RESULTS IN THE NEWLY UPDATED TEST WEBSITE COMPARED TO THE PREVIOUS ONE SO DO CONSIDER THE REQUEST SIR

# THE END