



Activity based Project 3 Report on

Application Security

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Contemporary Curriculum, Pedagogy, and Practice (C2P2)

By

Under the Initiative of

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Project Statement:

Configure your web application and deploy it on Virtual Private Network

Introduction:

In the evolving landscape of healthcare, ensuring the security and privacy of patient and staff accounts is paramount for organizations like Noble Hospital. With the increasing sophistication of cyber threats, bolstering safeguarding measures is not just a matter of compliance but also of ethical responsibility. To address these concerns, Noble Hospital recognizes the imperative of implementing a robust security strategy that goes beyond traditional measures.

In response to this imperative, Noble Hospital aims to enhance its security posture by integrating Multi-Factor Authentication (MFA) into its existing infrastructure. MFA adds an additional layer of security by requiring users to provide multiple forms of identification before gaining access to their accounts. In this proposed strategy, the dual elements of Password and One-Time Password (OTP) authentication will be employed, significantly enhancing protection against unauthorized access and potential data breaches.

By adopting MFA with Password and OTP authentication, Noble Hospital not only aligns with industry best practices but also demonstrates its unwavering commitment to safeguarding sensitive patient information and ensuring the security of its dedicated staff members. This proactive approach underscores Noble Hospital's dedication to maintaining the trust and confidentiality essential in the healthcare sector, ultimately fostering a safer and more secure environment for all stakeholders involved.

Implementation:

Application Security

Install XAMPP: Download and install XAMPP on the server machine that will host the application. XAMPP provides an easy-to-use platform that includes Apache, MySQL, PHP, and Perl, essential components for hosting web applications.

1. **Configure Apache:** Open the XAMPP Control Panel and start the Apache server. Configure Apache to serve your application by editing the Apache configuration files (httpd.conf, httpdvhhosts.conf) located in the "conf" directory of your XAMPP installation. Set up virtual hosts if hosting multiple applications.
2. **Place Application Files:** Copy your application files into the appropriate directory within the XAMPP installation. By default, XAMPP's web root directory is located in the "htdocs" folder. Ensure that your application files are accessible within this directory.
3. **Database Setup:** If your application requires a database, use phpMyAdmin, included with XAMPP, to create a new database and import any necessary database schema and data.
4. **Configure Firewall:** Configure the firewall on the server machine to allow incoming connections on the port used by Apache (usually port 80 for HTTP or port 443 for HTTPS). This ensures that clients on the LAN can access the application.
5. **Static IP Address :** Assign a static IP address to the server machine hosting XAMPP. This ensures that the IP address remains constant, making it easier for clients on the LAN to access the application consistently.
6. **Test Access:** Verify that the application is accessible within the LAN by opening a web browser on a client machine and entering the server's IP address or hostname followed by the path to the application (e.g., `http://server_ip/application_folder`). Ensure that all links and resources within the application are correctly configured for LAN access.

Results:



Figure 1 Install XAMPP

The screenshot shows a Windows File Explorer window with the address bar set to 'This PC > Ayush (F:) > Software_Installed > xampp > htdocs'. The file list is as follows:

Name	Date modified	Type	Size
ASC12	17/03/2024 7:20 pm	File folder	
ASstage2	22/03/2024 1:12 am	File folder	
ASstage3	24/04/2024 10:32 pm	File folder	
cross	23/04/2024 10:46 pm	File folder	
dashboard	17/03/2024 6:53 pm	File folder	
img	17/03/2024 6:53 pm	File folder	
shu	16/04/2024 9:18 pm	File folder	
webalizer	17/03/2024 6:53 pm	File folder	
xampp	17/03/2024 6:53 pm	File folder	
applications	15/06/2022 9:37 pm	Chrome HTML Do...	4 KB
ASstage2	03/04/2024 7:30 pm	WinRAR ZIP archive	1,309 KB
bitnami	15/06/2022 9:37 pm	Cascading Style S...	1 KB
favicon	16/07/2015 9:02 pm	Icon	31 KB
index	16/07/2015 9:02 pm	PHP Source File	1 KB

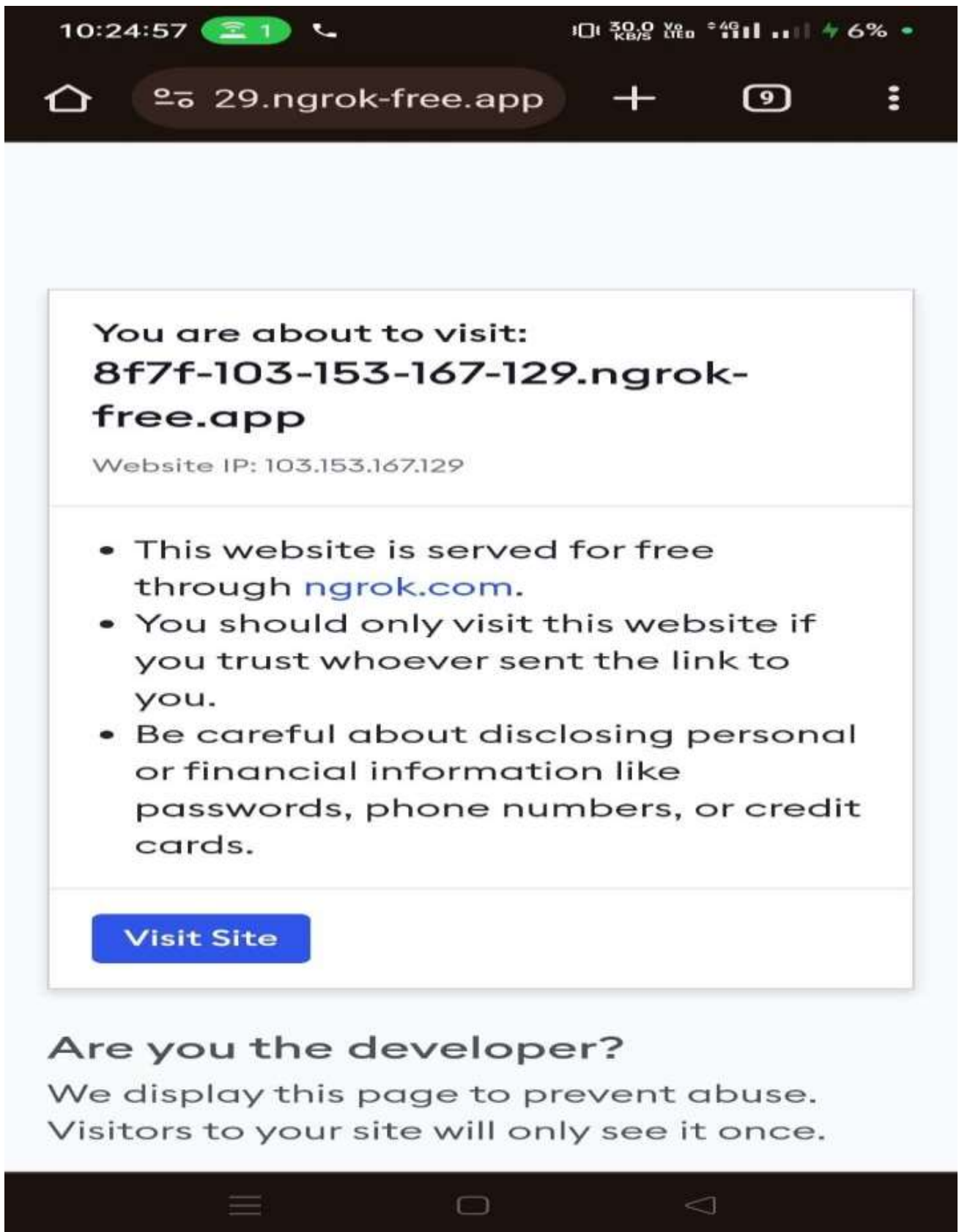
```
Command Prompt - ngrok ht X + v
ngrok (Ctrl+C to quit)
Take our ngrok in production survey! https://forms.gle/aXiBFWzEA36DudFn6

Session Status      online
Account             dheerajyalasangi123@gmail.com (Plan: Free)
Update              update complete, restart for new version!
Version             3.8.0
Region              India (in)
Latency             16ms
Web Interface        http://127.0.0.1:4040
Forwarding           https://8f7f-103-153-167-129.ngrok-free.app -> http://localhost:5500

Connections          ttl      opn      rt1      rt5      p50      p90
                    10       2       0.03    0.02    5.13    21.29

HTTP Requests
-----
GET /favicon.ico      404 Not Found
GET /noble_hospital.html/ws 101 Switching Protocols
GET /noble_hospital.html 200 OK
GET /noble_hospital.html/ws 101 Switching Protocols
GET /noble_hospital.html 304 Not Modified
GET /favicon.ico      404 Not Found
GET /noble_hospital.html 200 OK
GET /noble_hospital.html/ws 101 Switching Protocols
GET /noble_hospital.html 200 OK
GET /noble_hospital.html 200 OK
```

Figure 2 Place the webpage in XAMPP



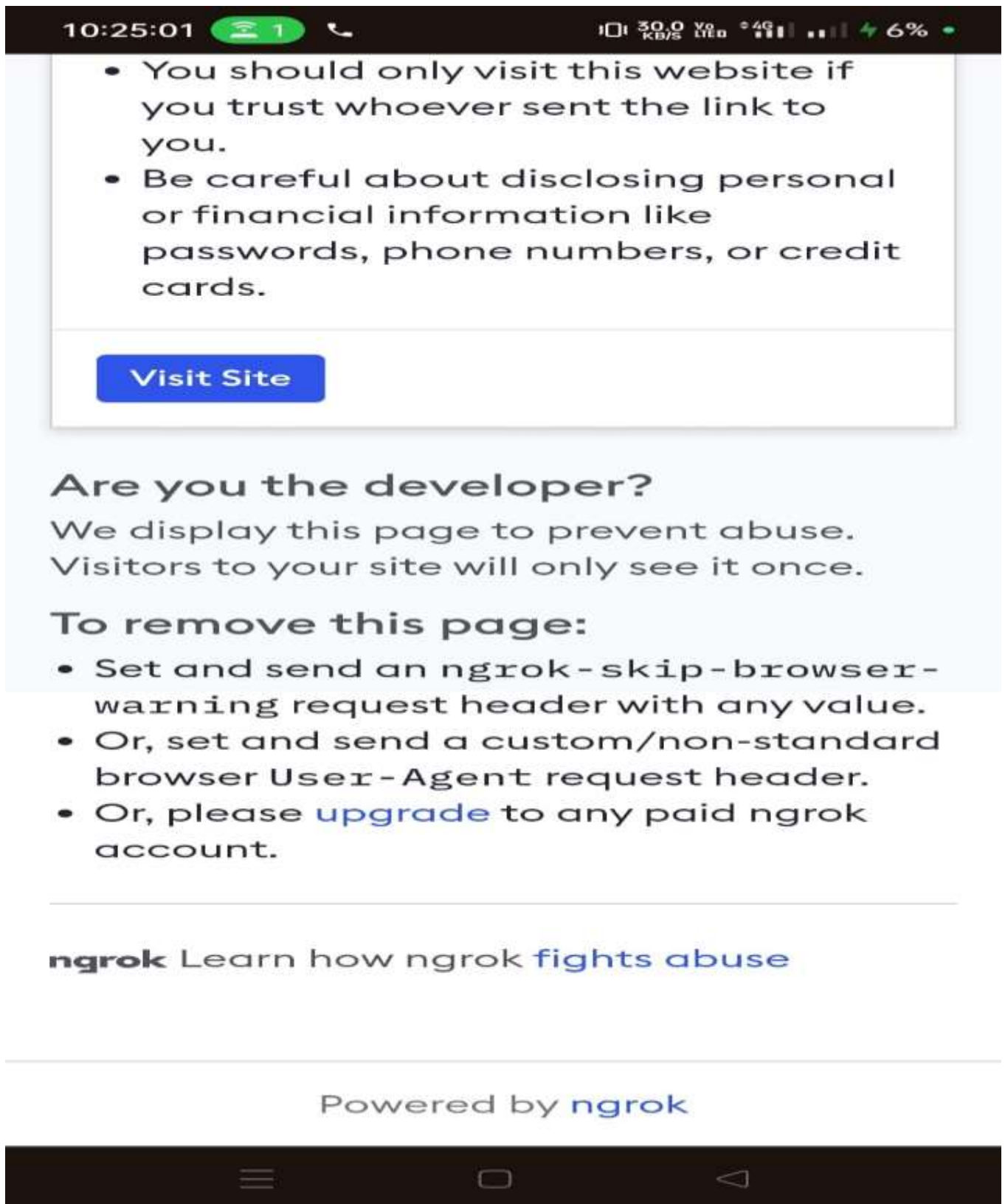


Figure TO VIEW SITE.

Noble Hospital

Home

Services
Contact

Doctors

Welcome to Noble Hospital

Providing quality healthcare services for the community.

Our Services

- Emergency Care
- Medical Consultation
- Surgery
- Maternity Services

Our Services

- Emergency Care
- Medical Consultation
- Surgery
- Maternity Services

Our Doctors

Dr. Aditya Gupta - Surgeon

Dr. Sandeep Vaishya - Surgeon

Dr. Hemant Sharma - Obstetrician

Contact Us

Address: 123 Main Street, Cityville

Phone: (555) 123-4567

Email: info@noblehospital.com

Figure INFORMATION.

Conclusion :

In conclusion, deploying an application on a LAN using XAMPP offers numerous benefits in terms of simplicity, security, performance, cost-effectiveness, and scalability. By leveraging XAMPP's features and configuring network settings effectively, organizations can create a reliable and secure environment for hosting web applications within their internal network.