



# ROADMAP TO WEB APPLICATION SECURITY

By Bikram Kharal



# ABOUT ME

**Bikram Kharal**

Cyber Security Enthusiast  
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CRTP,eWPTXv2, BSCP

# INTRODUCTION

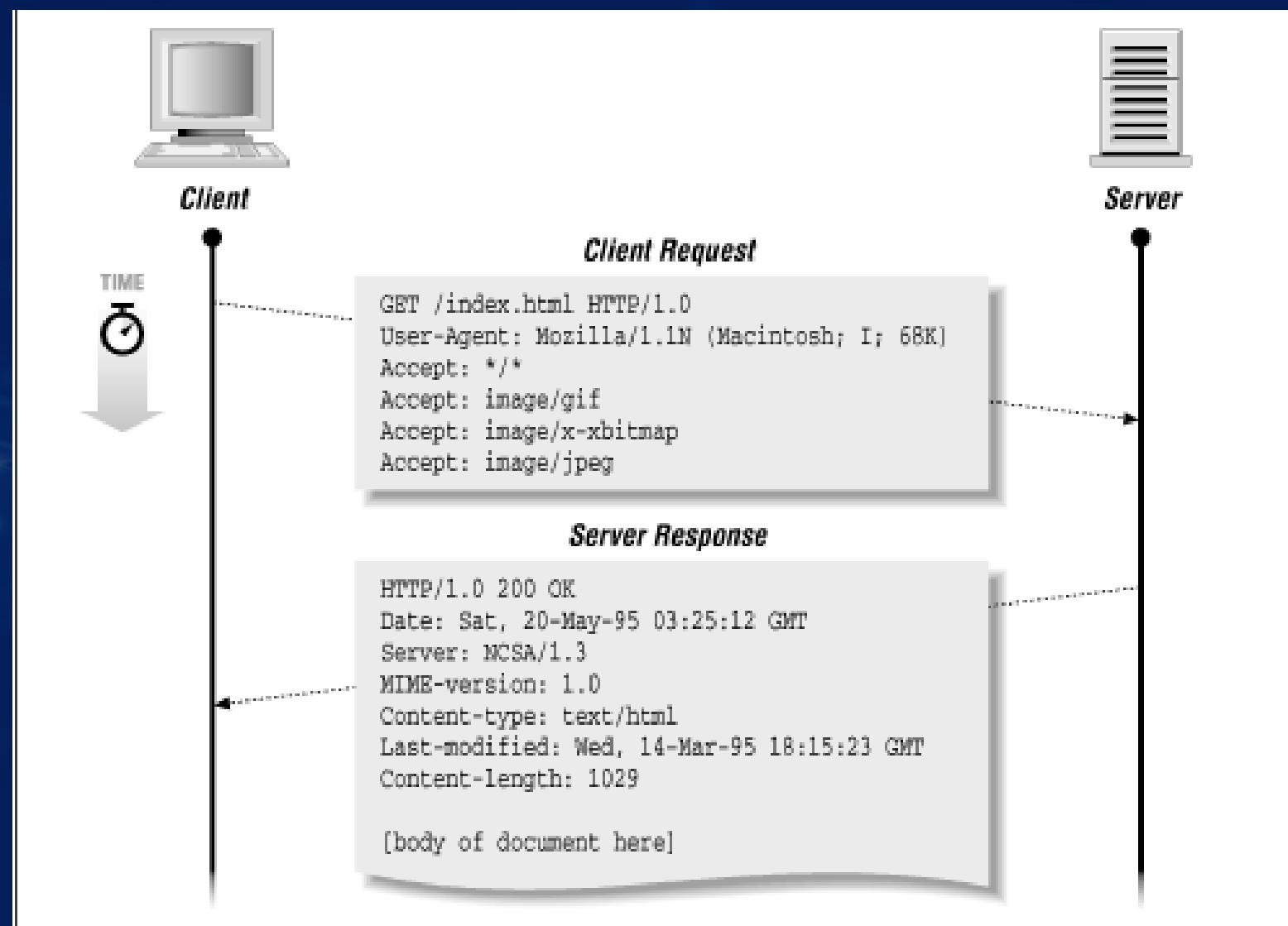
■ Web application security is the practice of detecting and preventing cyber attacks on websites.

■ Vulnerability is the flaw or weakness in the system



## ■ How the Web Works?

- HTTP Headers
- Request and Response
- Status Codes



# LEARN THE FUNDAMENTALS



## ■ CIA TRIAD

- Confidentiality
- Integrity
- Availability

## ■ Servers



# LEARN THE FUNDAMENTALS



# PROGRAMMING

■ PHP, Javascript

■ Python, Bash



# TYPES OF WEB APPLICATION TESTING

- **Static Application Security Testing (SAST)**  
SAST is a white-box testing method that analyzes the source code, bytecode, or binary of an application without executing it.
- **Dynamic Application Security Testing (DAST)**  
DAST is a black-box testing technique that involves executing an application and analyzing its behavior to identify potential security vulnerabilities



# SECURITY CONCEPTS

## ■ OWASP TOP 10

- Broken Access Control
- Cryptographic failures
- Injection
- Insecure design
- Security misconfiguration
- Vulnerable and outdated component
- Identification and authentication failures
- Software and data integrity failures
- Security logging and monitoring failures
- Server-side request forgery

## ■ Common Web Attacks

- Cross-Site Scripting
- SQL Injection
- Indirect Object Reference
- Cross Site Request Forgery

## ■ Tools

- Wappalyzer
- Nmap
- BurpSuite



# LABS

- DVWA
- Portswigger
- Tryhackme





# IMPLEMENTATION

- CTFs
- Bug Bounty Platforms
- Development
- Certifications
  - CEH
  - eWPTX

# STAY UPDATED

## ■ Security Newsletters

- Intigriti Bug Bytes
- Hive Five Newsletter
- Pentesterland

## ■ Social Media

- Twitter
- Youtube
- Medium

## ■ Follow

- Pentester Nepal
- Nahamsec
- Jhaddix
- Thecybermentor
- JohnHammond
- Critical Thinking - BBP



# ANY QUESTIONS?

Get In Touch

