CYBERSECURITY BOOTCAMP

GDG Algiers

Women Techmakers Algiers

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Who Am I

Who Am I

Madani Yousfi Abdelwahed

The Server Side

Introduction

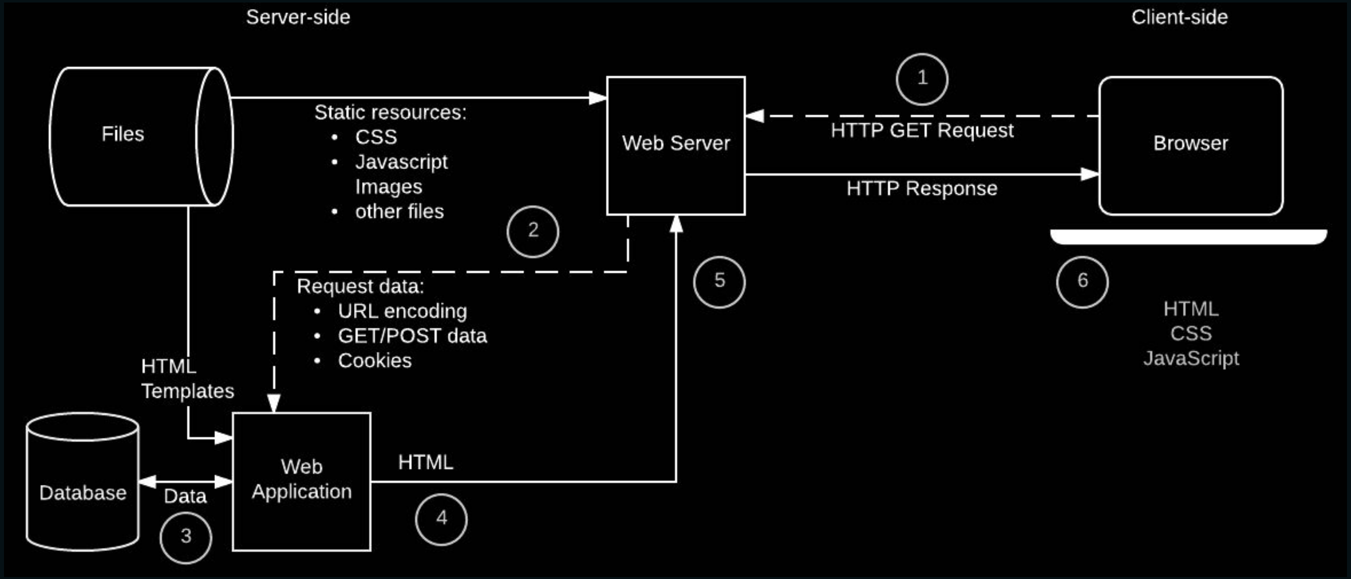
Introduction

“In the client–server model, server-side refers to programs and operations that run on the server. This is in contrast to client-side programs and operations which run on the client side (browser ...) ”

Wikipedia

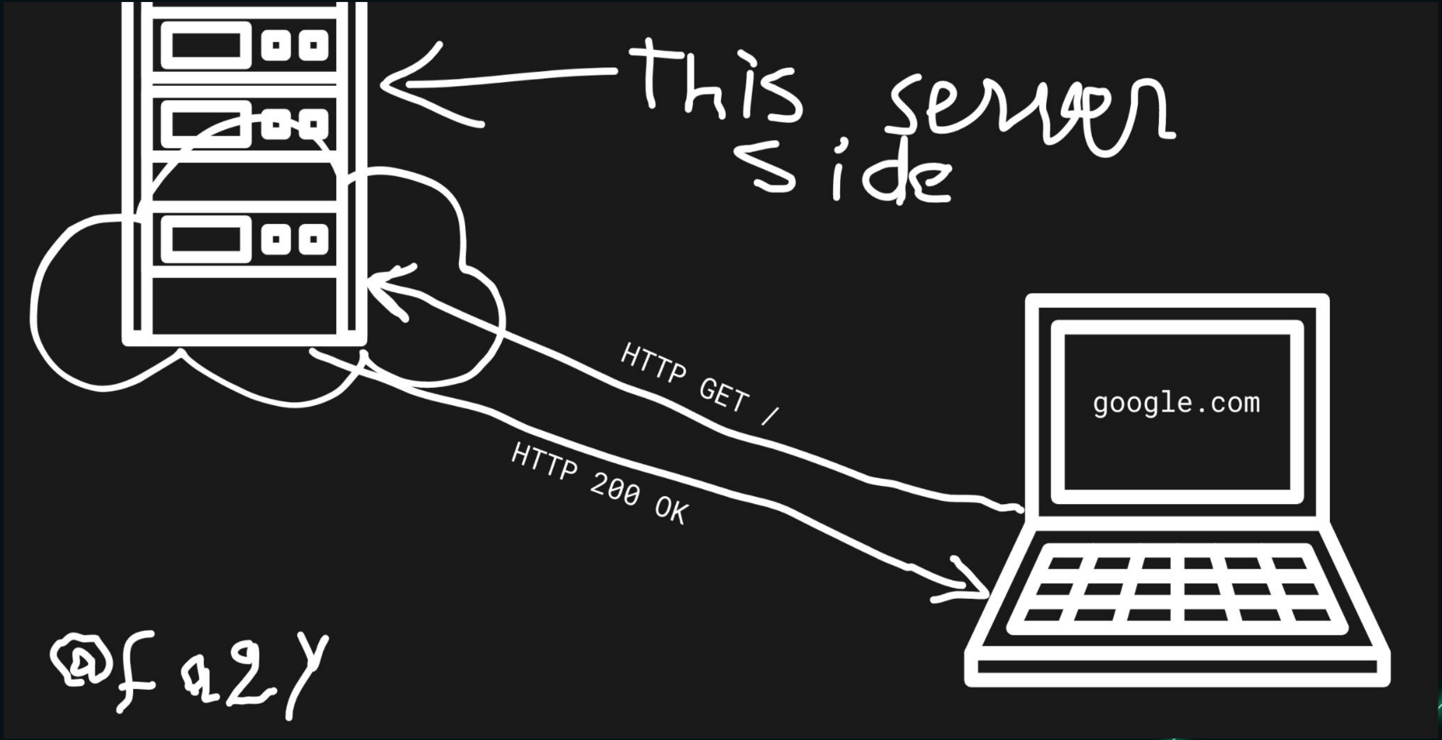
How it works?

How it works?



MDN

How it works?



Server Side Vulnerabilities

Server-side request forgery
SSRF

Server-side request forgery - SSRF

Description:

"Server-side request forgery (also known as SSRF) is a web security vulnerability that allows an attacker to induce the server-side application to make requests to an unintended location."

PortSwigger - SSRF

Impact of SSRF:

- Unauthorized actions or access to data within the organization.
- Attack other back-end systems that the application can communicate with.
- Might allow an attacker to perform arbitrary command execution.
- Connections to external third-party systems.

SQL Injection
SQLi

SQL Injection - SQLi

Description:

> *"SQL injection attacks are a type of injection attack, in which SQL commands are injected into data-plane input in order to affect the execution of predefined SQL commands."*

OWASP - SQL Injection

Impact of SQLi:

- Read sensitive data from the database.
- Modify database data (Insert/Update/Delete).
- Execute administration operations on the database (such as shutdown the DBMS).
- Recover the content of a given file present on the DBMS file system.
- Some cases issue commands to the operating system..

Server-Side Template Injection
SSTI

Server-Side Template Injection - SSTI

Description:

> *"A server-side template injection occurs when an attacker is able to use native template syntax to inject a malicious payload into a template, which is then executed server-side."*
>
> **Hacktricks - SSTI**

Impact of Server-Side Template Injection - SSTI:

- Expose websites to a variety of attacks depending on the template engine
- Using the attack to perform other attacks on internal infrastructure.
- Use the attack as the basis for numerous other attacks, potentially gaining read access to sensitive data and arbitrary files on the server.

Directory traversal

Directory traversal

Description:

"Directory traversal (also known as File Path Traversal) is a vulnerability that allows an attacker to read arbitrary files on the server that is running an application. "

PortSwigger - Directory traversal

Impact of Directory traversal:

- Accessing application code and data
- Credentials for back-end systems, and sensitive operating system files.
- Might allow writing to arbitrary files on the server, allowing them to modify application data or behavior

OS Command Injection

OS Command Injection

Description:

"An OS command injection is a vulnerability that enables the execution of unauthorized operating system commands. An OS command injection vulnerability arises when a web application sends unsanitized, unfiltered system commands to be executed."

White Hat - OS Command Injection

Impact of OS Command Injection:

- Almost full control of the system.
- Compromise other parts of the hosting infrastructure.
- Exploiting trust relationships to pivot the attack to other systems within the organization.

Demo

Conclusion

Conclusion

TODO

Thank you for your attention

Introduction:

The Server Side :

Color & Typography

🟩

Titles color
#03EB9D

⬛

Text secondary color for white background
#061115

▩

Text scondary color
#afb8c1

⬜

Text main color
#ffffff

Google Sans

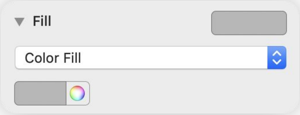
Regular

Bold

Icons

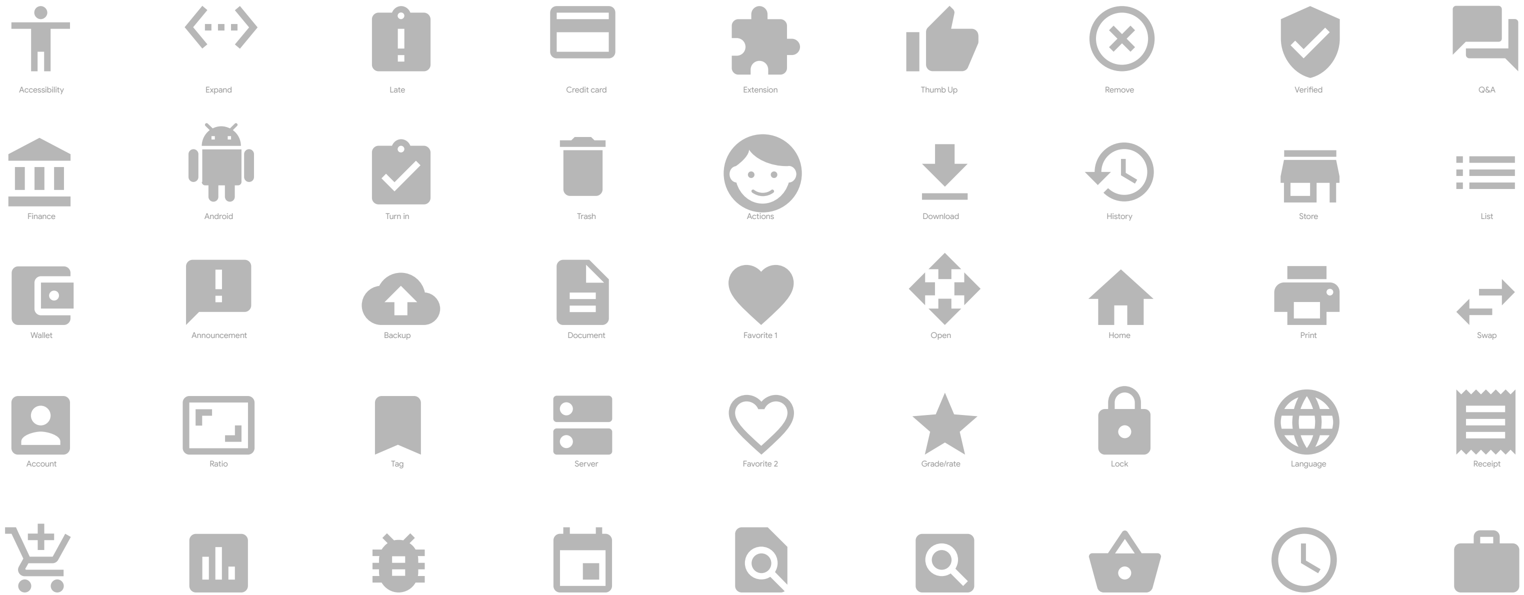
Icons

All icons are vector objects and can be recolored using the fill menu.



Fill

Color Fill



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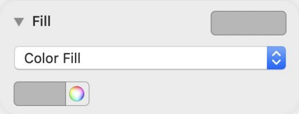

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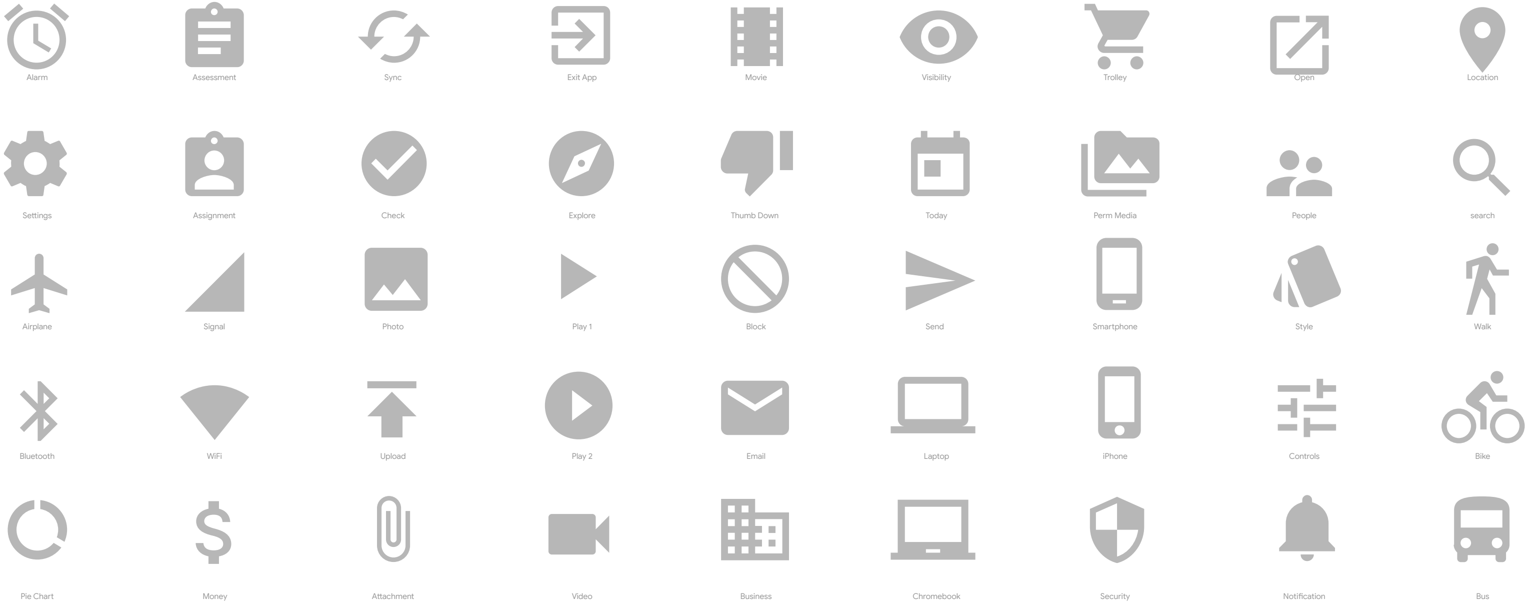

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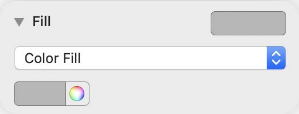

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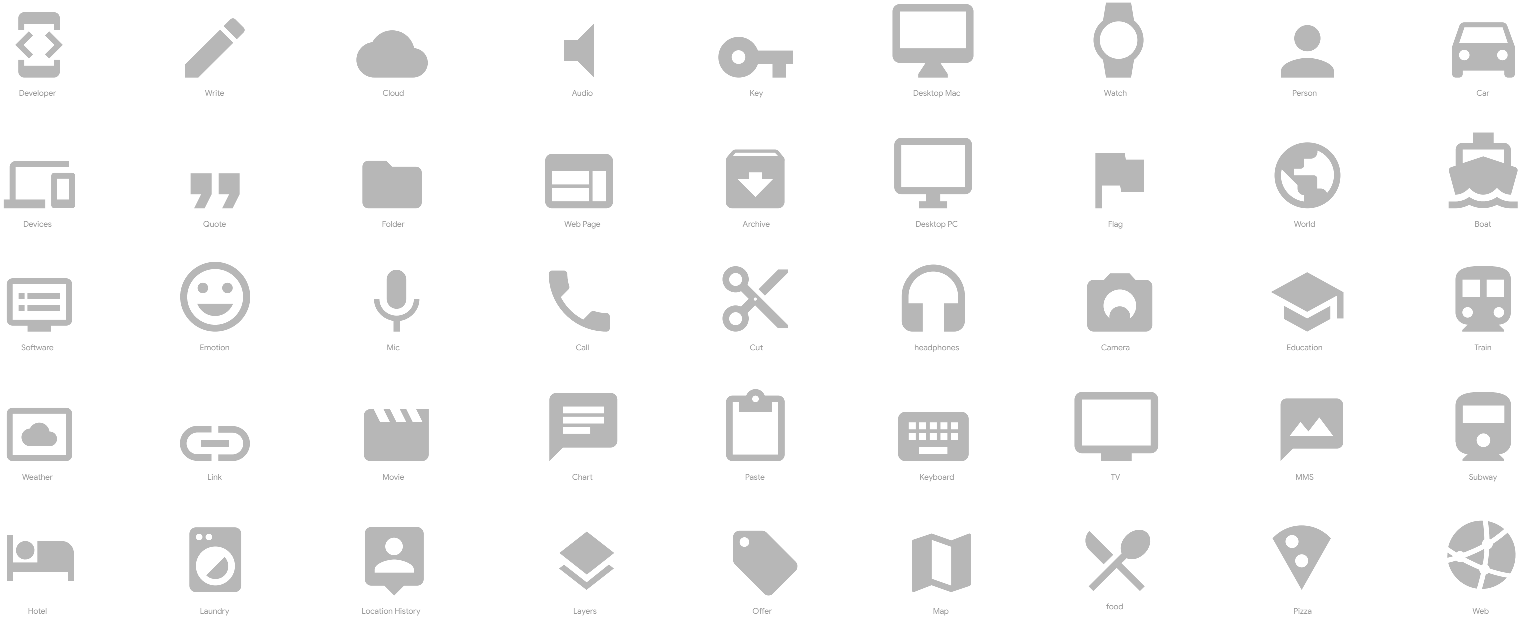

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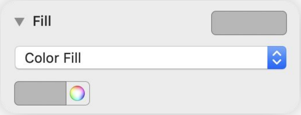

Fill

Color Fill

Cafe

Theatre

Gaming

Florist

Stream

Gas

Delivery

Hospital

Taxi

Print

Radio

Device Library

Logo Library

Logos can be scaled to any size

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