Authentication and Authorization in PHP

WHAT IS AUTHENTICATION?



Matthew Setter
PHP SECURITY ENGINEER

@settermjd matthewsetter.com

Module Overview

- A rapid introduction to authentication
- Learn about two common types:
 - HTTP Authentication
 - Form-based Authentication

What is Authentication?

"The process of verifying the identity of a user, process, or device, often as a prerequisite to allowing access to resources in an information system."

NIST Computer Security Resource Center

There Are Multiple Authentication Types





Single-factor Authentication

Multi-factor Authentication

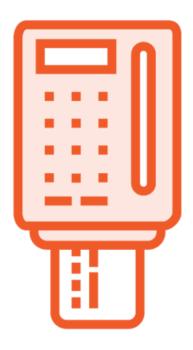
Single-factor Authentication





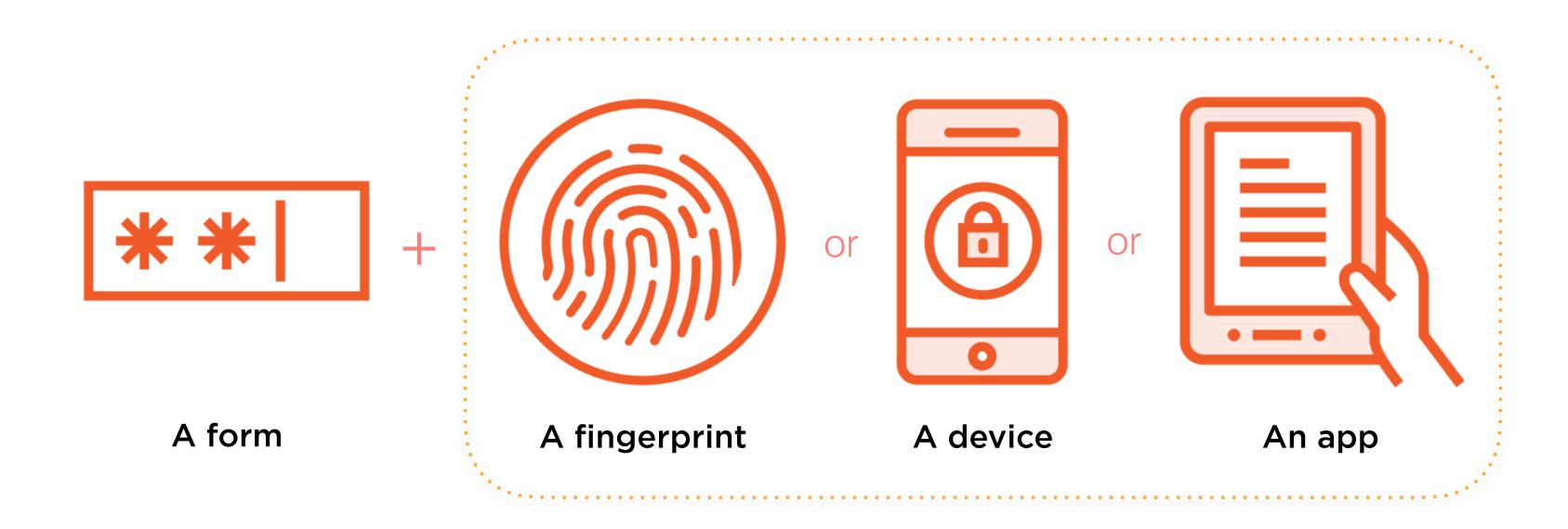


Biometric data



An additional item

Multi-factor Authentication

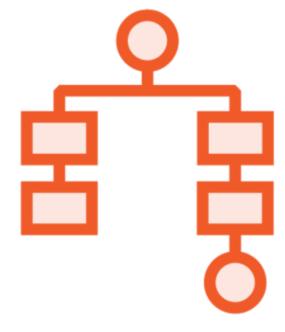


The Difference Between Authentication and Authorization

Authentication vs Authorization



Authentication



Authorization

The Benefits

- 1. Only valid users have access
- 2. Access is appropriately authorized

Common Authentication Types

"Authentication framework, which can be used by a server to challenge a client request, and by a client to provide authentication information, as defined by RFC 7235."

HTTP Authentication (MDN)

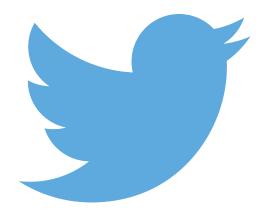
HTTP Authentication



- Doesn't use login pages
- Uses HTTP headers
- There are 6 types

Form-based Authentication











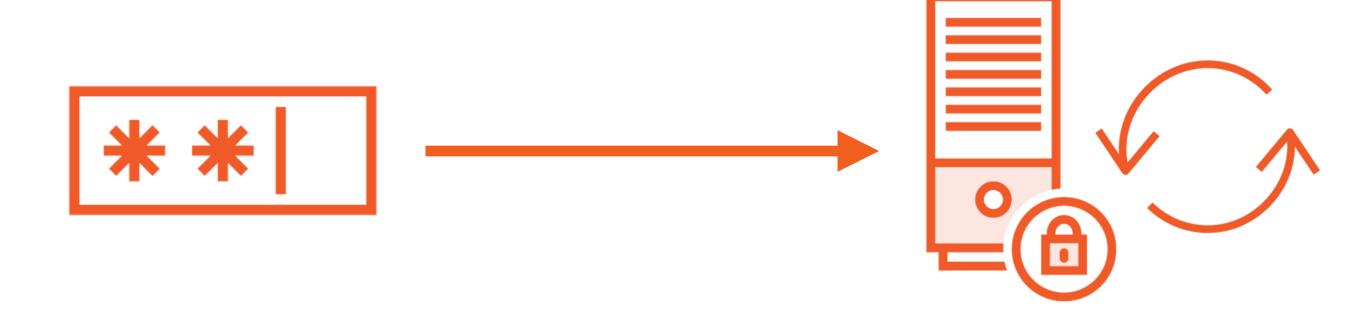


Form-based Authentication

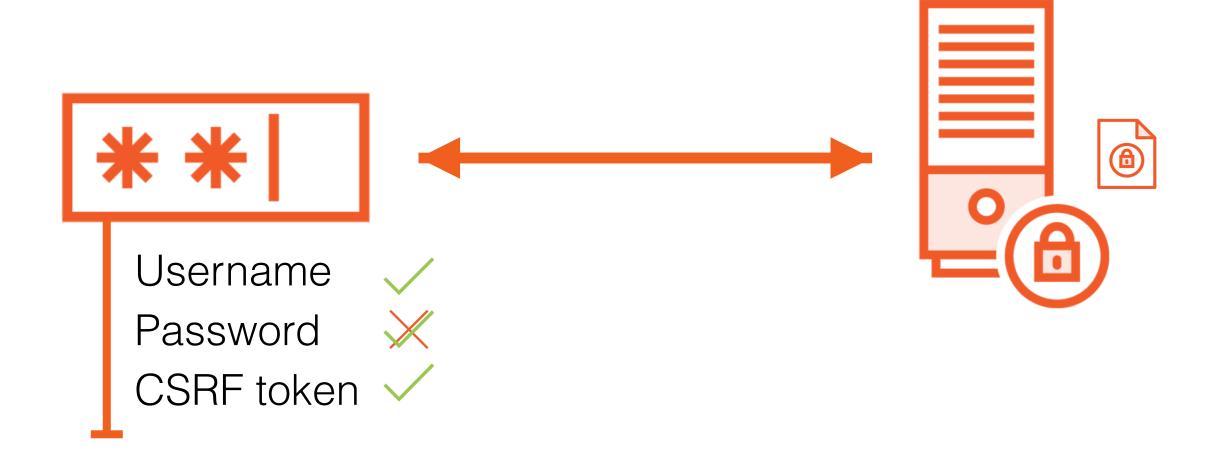


- Has no formal specification
- Uses HTTP and HTML elements
- Is very flexible
- Can be very creative

Form-based Authentication Flow



Form-based Authentication Flow



Please Be Aware



Set the HttpOnly and Secure flags to avoid XSS attacks

Module Recap

- Rapid introduction to authentication
- Learned the difference between authentication and authorization
- Learned about two authentication types

Coming Up Next

- HTTP Authentication
- Basic and Digest