

# Pen Testing with Bash

## Network Reconnaissance and Enumeration



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# Reconnaissance

## Information Gathering

Passive info gathering  
Help in testing planning  
From public sources

VS

## Enumeration

Active scanning  
Use of tools  
Identify attack vectors





**More than just commands**

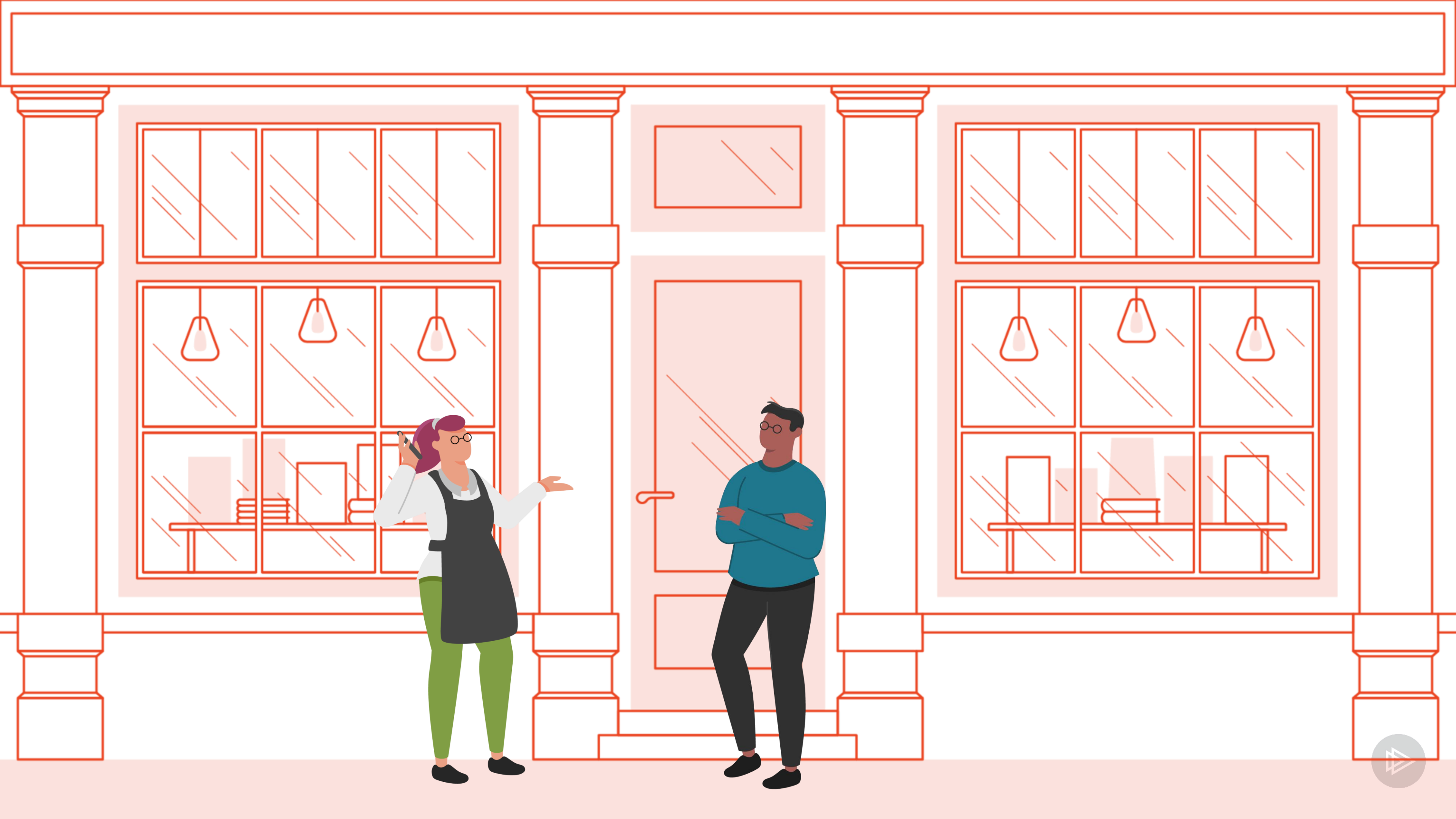
**Tons of functionality**

**Essential for pen testers**

**Widely available**

**Resource rich**







**Early engagement**

**Registration database**

**Publicly available**

**Info query**





**Compile Information**

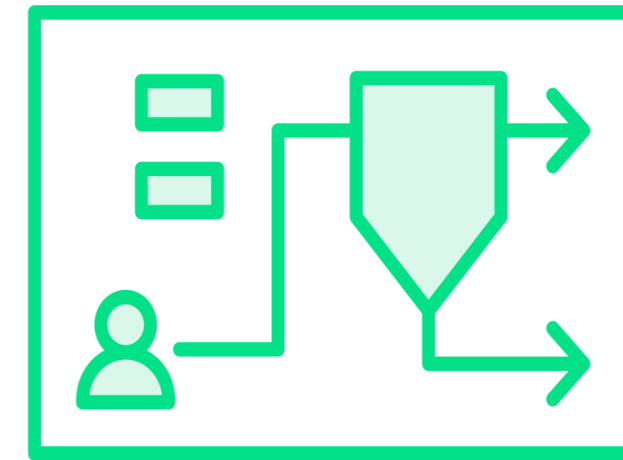
**Analyze Data**

**Identify Weakness**



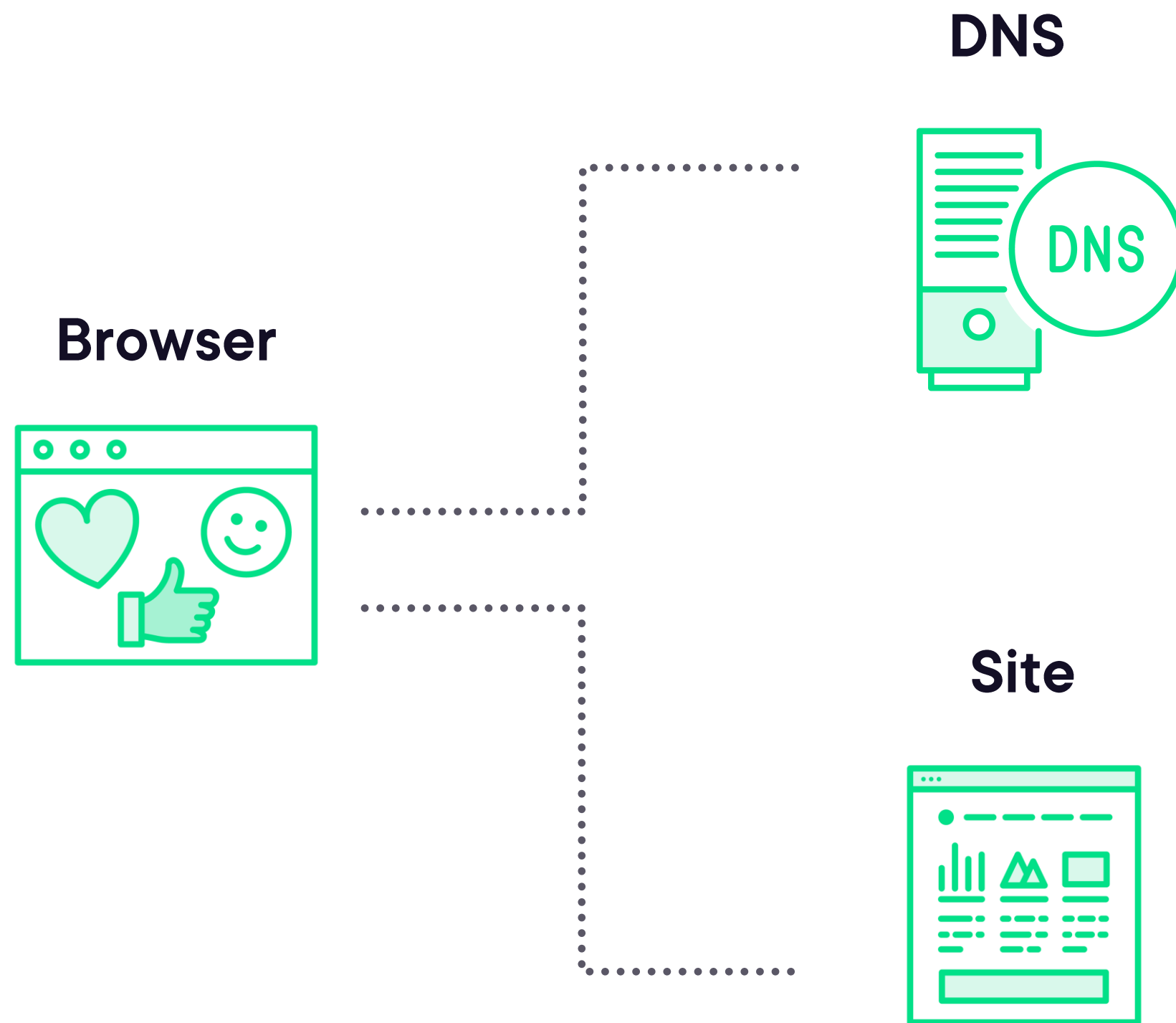


**Translates domain name to IP  
address**



**Making internet usage easier**







**Host to IP mapping**

**Reverse DNS lookup**

**Mail server**

**Text records**





**A records handle mapping domain names to IPs**



**MX records specifies mail servers**



**CNAME records do domain name to domain name mapping**



**TXT records store textual data related to the domain name**

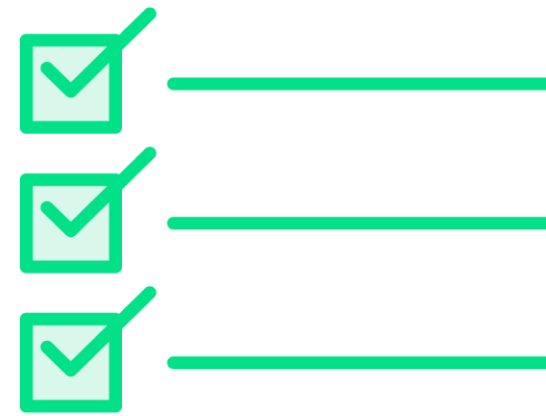


**NS records specify DNS servers**





**Interrogation tool**



**It has all the needed  
functions**



**It is prevalent**



**Get the list of subdomains**

**Bigger attack surface**

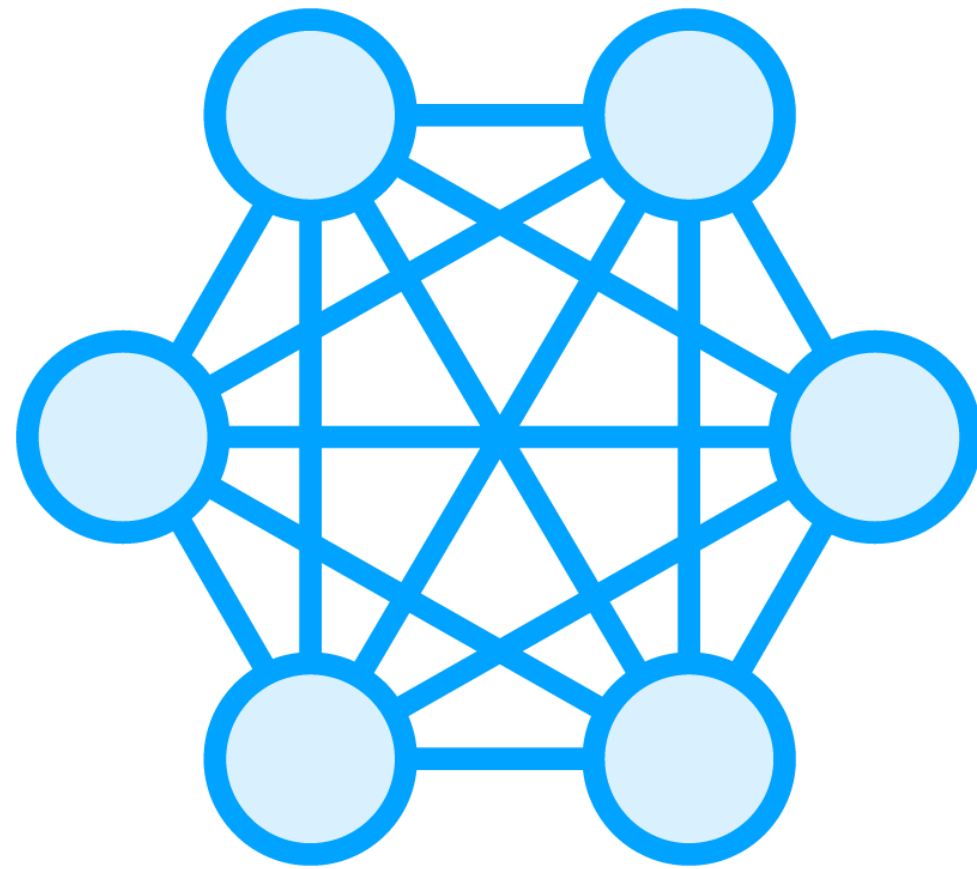


**DNSMap is the tool  
for you**

**Discovery is done by  
brute forcing**

**Uses a wordlist for  
subdomains**





**IP to MAC mapping**

**Can be used for discovery**

**Bound to local network**

**ARP vs ICMP**

- Stealthy in nature
- More reliable



**Open-source tool**

**Equipped with  
functionality**

**Network scanning  
capability**

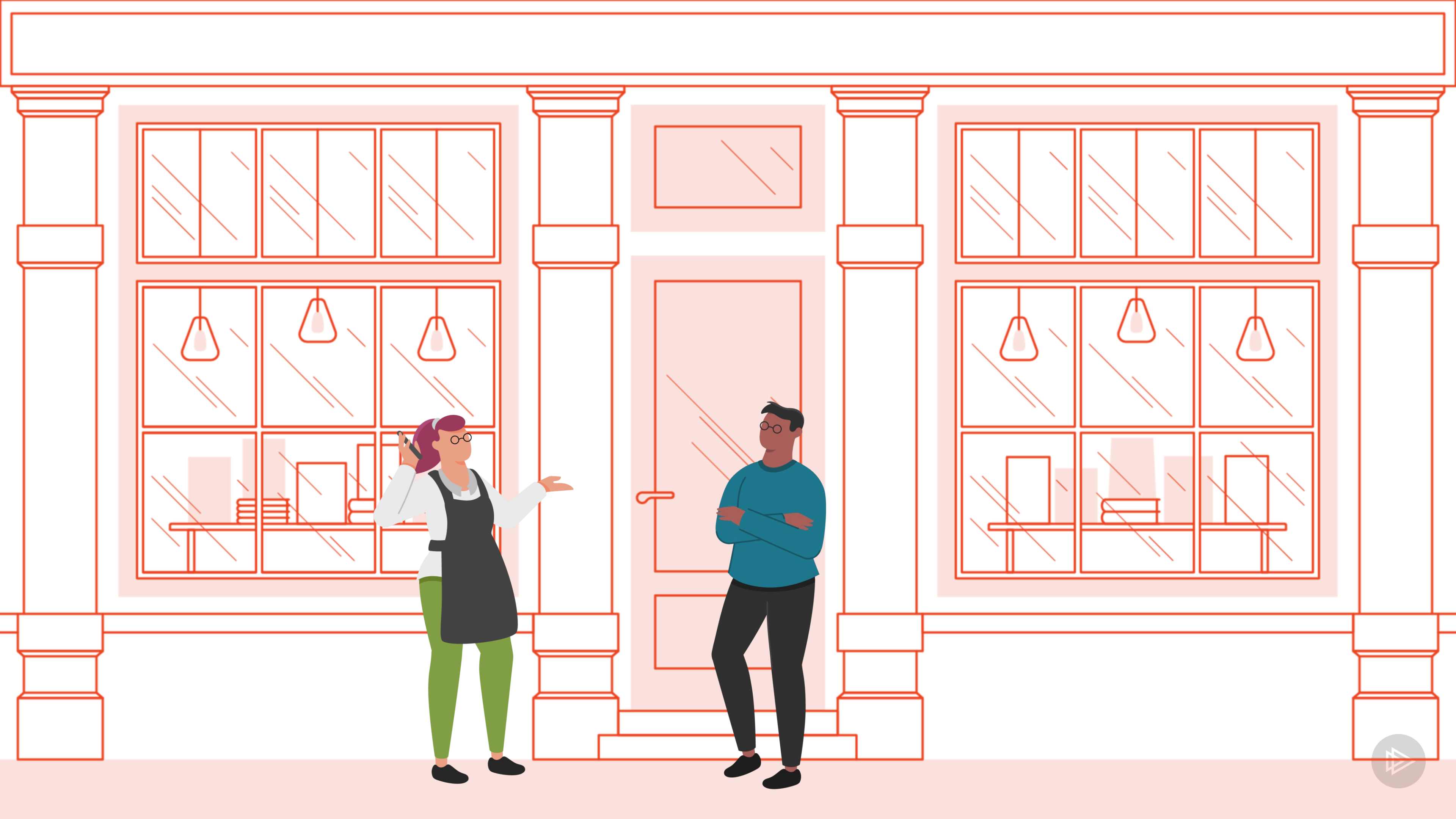


**ARP does not always work**

**Utilize a combination of scan  
types**







**Costly and error  
prone**

**Bash scripts  
streamline your work**

**Get an accurate  
result quickly**

