

Room 1: HTTP in Detail

Summary:

This room explores the HTTP technologies, which include: requests, responses, cookies, headers, and status codes.

Objective:

- To practically make requests using HTTP

Tools Used:

- No tool(s) used

Steps Taken:

Task 1: What is HTTP(S)

The screenshot shows a web browser window at `tryhackme.com/room/httpindetail`. The page is titled "Room progress (13%)" and features a laptop icon. A modal dialog box is open, displaying the message: "An embedded page at static-labs.tryhackme.cloud says You got the flag: THM{INVALID_HTTP_CERT}" with an "OK" button. The main content area is divided into two columns. The left column contains text explaining HTTP and HTTPS, followed by three questions with input fields and "Correct Answer" buttons. The right column shows a "Welcome To TryHackMe" message and a logo. The bottom of the page has a navigation bar with a "Requests And Responses" tab selected.

Room progress (13%)

An embedded page at static-labs.tryhackme.cloud says
You got the flag: THM{INVALID_HTTP_CERT}

OK

TryHackMe

Welcome To TryHackMe

What is HTTP? (HyperText Transfer Protocol)

HTTP is what's used whenever you view a website, developed by Tim Berners-Lee and his team between 1989-1991. HTTP is the set of rules used for communicating with web servers for the transmitting of webpage data, whether that is HTML, Images, Videos, etc.

What is HTTPS? (HyperText Transfer Protocol Secure)

HTTPS is the secure version of HTTP. HTTPS data is encrypted so it not only stops people from seeing the data you are receiving and sending, but it also gives you assurances that you're talking to the correct web server and not something impersonating it.

Answer the questions below

What does HTTP stand for?

HyperText Transfer Protocol

✓ Correct Answer

What does the S in HTTPS stand for?

secure

✓ Correct Answer

On the mock webpage on the right there is an issue, once you've found it, click on it. What is the challenge flag?

THM{INVALID_HTTP_CERT}

✓ Correct Answer

Requests And Responses

Task 2: Requests and Responses

tryhackme.com/room/httpindetail

Room progress (22%)

```
<html>
<head>
  <title>TryHackMe</title>
</head>
<body>
  Welcome To TryHackMe.com
</body>
</html>
```

To breakdown each line of the response:

Line 1: HTTP 1.1 is the version of the HTTP protocol the server is using and then followed by the HTTP Status Code in this case "200 OK" which tells us the request has completed successfully.

Line 2: This tells us the web server software and version number.

Line 3: The current date, time and timezone of the web server.

Line 4: The Content-Type header tells the client what sort of information is going to be sent, such as HTML, images, videos, pdf, XML.

Line 5: Content-Length tells the client how long the response is, this way we can confirm no data is missing.

Line 6: HTTP response contains a blank line to confirm the end of the HTTP response.

Lines 7-14: The information that has been requested, in this instance the homepage.

Answer the questions below

What HTTP protocol is being used in the above example?

HTTP/1.1

✓ Correct Answer


What response header tells the browser how much data to expect?

Content-Length

✓ Correct Answer

http://tryhackme.com

Woop woopl! Your answer is correct


Welcome To TryHackMe

Task 3: HTTP Methods

tryhackme.com/room/httpindetail

Room progress (40%)

HTTP methods are a way for the client to show their intended action when making an HTTP request. There are a lot of HTTP methods but we'll cover the most common ones, although mostly you'll deal with the GET and POST method.

GET Request
This is used for getting information from a web server.

POST Request
This is used for submitting data to the web server and potentially creating new records

PUT Request
This is used for submitting data to a web server to update information

DELETE Request
This is used for deleting information/records from a web server.

Answer the questions below

What method would be used to create a new user account?

POST

✓ Correct Answer

What method would be used to update your email address?

PUT

✓ Correct Answer

What method would be used to remove a picture you've uploaded to your account?

DELETE


✓ Correct Answer

What method would be used to view a news article?

✓ Correct Answer

http://tryhackme.com

Woop woopl! Your answer is correct


Welcome To TryHackMe

Website Check

Task 4: HTTP Status Codes

tryhackme.com/room/httpindetail

Room progress (50%)

402 - Method Not Allowed

The resource does not allow this method request, for example, you send a GET request to the resource /create-account when it was expecting a POST request instead.

404 - Page Not Found

The page/resource you requested does not exist.

500 - Internal Service Error

The server has encountered some kind of error with your request that it doesn't know how to handle properly.

503 - Service Unavailable

This server cannot handle your request as it's either overloaded or down for maintenance.

If you are a visual learner, also check out a great [http.cat](http://cat) resource to study status codes. Now, click the "View Site" button on the right to see what some of these HTTP status messages look like in a browser.

Answer the questions below

What response code might you receive if you've created a new user or blog post article?

201

✓ Correct Answer

What response code might you receive if you've tried to access a page that doesn't exist?

404

✓ Correct Answer

What response code might you receive if the web server cannot access its database and the application crashes?

503

✓ Correct Answer


What response code might you receive if you try to edit your profile without logging in first?

401

✓ Correct Answer

Task 5 Headers

http://tryhackme.com/



TryHackMe

Welcome To TryHackMe

Task 5: Headers

tryhackme.com/room/httpindetail

Room progress (60%)

Content-Type: Tells the browser what type of data is being returned, i.e., HTML, CSS, JavaScript, Images, PDF, Video, etc. Using the content-type header the browser then knows how to process the data.

Accept-Encoding: Tells the web server what types of compression methods the browser supports so the data can be made smaller for transmitting over the internet.

Cookie: Data sent to the server to help remember your information (see cookies task for more information).

Common Response Headers

These are the headers that are returned to the client from the server after a request.

Set-Cookie: Information to store which gets sent back to the web server on each request (see cookies task for more information).

Cache-Control: How long to store the content of the response in the browser's cache before it requests it again.

Content-Type: This tells the client what type of data is being returned, i.e., HTML, CSS, JavaScript, Images, PDF, Video, etc. Using the content-type header the browser then knows how to process the data.

Content-Encoding: What method has been used to compress the data to make it smaller when sending it over the internet.

Answer the questions below

What header tells the web server what browser is being used?

User-Agent

✓ Correct Answer

What header tells the browser what type of data is being returned?

Content-Type

✓ Correct Answer


What header tells the web server which website is being requested?

Host

✓ Correct Answer

Task 6 Cookies

http://tryhackme.com/



TryHackMe

Welcome To TryHackMe

Woop woopl Your answer is correct

Task 6: Cookies

Room progress (77%)

Content-Length: 9
name=adam

HTTP/1.1 200 OK
Server: nginx/1.15.8
Date: Wed, 14 Apr 2021 09:08:19 GMT
Set-Cookie: name=adam
Content-Type: text/html; charset=UTF-8
HTML DATA:

GET / HTTP/1.1
Host: cookies.thm
User-Agent: xxxx
Cookie: name=adam

HTTP/1.1 200 OK
Server: nginx/1.15.8
Date: Wed, 14 Apr 2021 09:08:19 GMT
Content-Type: text/html; charset=UTF-8
<html><body>Welcome back **adam**</body></html>

with the name set to adam

The server responds with a Set-Cookie header telling the client to save the data name=adam

On the next and every further request the clients sends the cookie data back to the server

The server then sees the cookie data and instead of displaying the form it displays a welcome back message instead

Cookies can be used for many purposes but are most commonly used for website authentication. The cookie value won't usually be a clear-text string where you can see the password, but a token (unique secret code that isn't easily humanly guessable).

Viewing Your Cookies

You can easily view what cookies your browser is sending to a website by using the developer tools, in your browser. If you're not sure how to get to the developer tools in your browser, click on the "View Site" button at the top of this task for a how-to guide.

Once you have developer tools open, click on the "Network" tab. This tab will show you a list of all the resources your browser has requested. You can click on each one to receive a detailed breakdown of the request and response. If your browser sent a cookie, you will see these on the "Cookies" tab of the request.

Answer the questions below

Which header is used to save cookies to your computer?

Set-Cookie

✓ Correct Answer

Task 5: Making Requests

Room progress (81%)

Task 6 Cookies

Task 7 Making Requests

Click the "View Site" button on the right.

This is an emulator for making demo HTTP requests, using what you've learnt from the above tasks you can use it to complete the below questions.

Answer the questions below

Make a GET request to /room page

THM{YOU'RE_IN_THE_ROOM}

✓ Correct Answer

Hint

Make a GET request to /blog page and set the id parameter to 1
Note: Use the gear button on the right to manage URI parameters

_{_____}

Submit

Make a DELETE request to /user/1 page

_{_____}

Submit

Make a PUT request to /user/2 page with the username parameter set to admin
Note: Use the gear button on the right to manage body parameters

_{_____}

Submit

Hint

Make a POST request to /login page with the username of thm and a password of letmein
Use the gear button on the right to manage body parameters

_{_____}

Submit

Hint

GET http://tryhackme.com/room

✓ Woop woopl Your answer is correct

GET /room HTTP/1.1
Host: tryhackme.com
User-Agent: Mozilla/5.0 Firefox/87.0
Content-Length: 0

Response

HTTP/1.1 200 Ok
Server: nginx/1.15.8
Mon, 8 Sep 2025 14:52:38 GMT
Content-Type: text/html; charset=utf-8
Content-Length: 252
Last-Modified: Mon, 8 Sep 2025 14:52:38 GMT

<html>
<head>
 <title>TryHackMe</title>
</head>
<body>
 Welcome to the Room page THM{YOU'RE_IN_THE_ROOM}
</body>
</html>

THM Browser

Welcome to the Room page THM{YOU'RE_IN_THE_ROOM}

Website Check Developer Tools How HTTP Works v2b

tryhackme.com/room/httpindetail

Room progress (50%)

use it to complete the below questions.

Answer the questions below

Make a GET request to /room page

THM{YOU'RE_IN_THE_ROOM}

Correct Answer

Hint

Make a GET request to /blog page and set the id parameter to 1

Note: Use the gear button on the right to manage URI parameters

THM{YOU_FOUND_THE_BLOG}

Correct Answer

Make a DELETE request to /user/1 page

Submit

Make a PUT request to /user/2 page with the username parameter set to admin

Note: Use the gear button on the right to manage body parameters

Submit

Hint

Make a POST request to /login page with the username of thm and a password of letmein

Note: Use the gear button on the right to manage body parameters

Submit

Hint

How likely are you to recommend this room to others?

1 2 3 4 5 6 7 8 9 10

Submit now

GET /blog?id=1 HTTP/1.1

Host: tryhackme.com

User-Agent: Mozilla/5.0 Firefox/87.0

Content-Length: 0

Response

HTTP/1.1 200 Ok

Server: nginx/1.15.8

Mon, 8 Sep 2025 14:57:12 GMT

Content-Type: text/html; charset=utf-8

Content-Length: 250

Last-Modified: Mon, 8 Sep 2025 14:57:12 GMT

<html>

<head>

<title>TryHackMe</title>

</head>

<body>

Viewing Blog article 1 THM{YOU_FOUND_THE_BLOG}

</body>

</html>

THM Browser

Viewing Blog article 1 THM{YOU_FOUND_THE_BLOG}

Website Check Developer Tools How HTTP Works v2b

tryhackme.com/room/httpindetail

Room progress (50%)

Make a GET request to /room page

THM{YOU'RE_IN_THE_ROOM}

Correct Answer

Hint

Make a GET request to /blog page and set the id parameter to 1

Note: Use the gear button on the right to manage URI parameters

THM{YOU_FOUND_THE_BLOG}

Correct Answer

Make a DELETE request to /user/1 page

THM{USER_IS_DELETED}

Correct Answer

Make a PUT request to /user/2 page with the username parameter set to admin

Note: Use the gear button on the right to manage body parameters

Submit

Hint

Make a POST request to /login page with the username of thm and a password of letmein

Note: Use the gear button on the right to manage body parameters

Submit

Hint

How likely are you to recommend this room to others?

1 2 3 4 5 6 7 8 9 10

Submit now

DELETE /user/1 HTTP/1.1

Host: tryhackme.com

User-Agent: Mozilla/5.0 Firefox/87.0

Content-Length: 0

Response

HTTP/1.1 200 Ok

Server: nginx/1.15.8

Mon, 8 Sep 2025 15:03:37 GMT

Content-Type: text/html; charset=utf-8

Content-Length: 250

Last-Modified: Mon, 8 Sep 2025 15:03:37 GMT

<html>

<head>

<title>TryHackMe</title>

</head>

<body>

The user has been deleted THM{USER_IS_DELETED}

</body>

</html>

THM Browser

The user has been deleted THM{USER_IS_DELETED}

Website Check Developer Tools How HTTP Works v2b

tryhackme.com/room/httpindetail

Room progress (95%)

THM{YOU_FOUNDED_THE_ROOM}

Correct Answer

Hint

Make a GET request to /blog page and set the id parameter to 1
Note: Use the gear button on the right to manage URI parameters

THM{YOU_FOUND_THE_BLOG}

Correct Answer

Make a DELETE request to /user/1 page

THM{USER_IS_DELETED}

Correct Answer

Make a PUT request to /user/2 page with the username parameter set to admin
Note: Use the gear button on the right to manage body parameters

THM{USER_HAS_UPDATED}

Correct Answer

Hint

Make a POST request to /login page with the username of thm and a password of letmein
Note: Use the gear button on the right to manage body parameters

{_____}

Submit

Hint

How likely are you to recommend this room to others?

12345678910

Submit now

Created by

tryhackme strategos Aashir.Masood TactfulTurtle

PUT http://tryhackme.com/user/2

Woop woopl Your answer is correct

PUT /user/2 HTTP/1.1
Host: tryhackme.com
User-Agent: Mozilla/5.0 Firefox/87.0
Content-Length: 14
Content-Type: application/x-www-form-urlencoded

username=admin

Response

HTTP/1.1 200 Ok
Server: nginx/1.15.8
Mon, 8 Sep 2025 15:5:13 GMT
Content-Type: text/html; charset=utf-8
Content-Length: 251
Last-Modified: Mon, 8 Sep 2025 15:5:13 GMT

<html>
<head>
<title>TryHackMe</title>
</head>
<body>
Username changed to admin THM{USER_HAS_UPDATED}
</body>
</html>

THM Browser

Username changed to admin THM{USER_HAS_UPDATED}

tryhackme.com/room/httpindetail

Room completed (100%)

THM{YOU_FOUNDED_THE_ROOM}

Correct Answer

Make a DELETE request to /user/1 page

THM{USER_IS_DELETED}

Correct Answer

Make a PUT request to /user/2 page with the username parameter set to admin
Note: Use the gear button on the right to manage body parameters

THM{USER_HAS_UPDATED}

Correct Answer

Hint

Make a POST request to /login page with the username of thm and a password of letmein
Note: Use the gear button on the right to manage body parameters

THM{HTTP_REQUEST_MASTER}

Correct Answer

Hint

How likely are you to recommend this room to others?

12345678910

Submit now

Created by

tryhackme strategos Aashir.Masood TactfulTurtle

Room Type

Free Room. Anyone can deploy virtual machines in the room (without being subscribed!)

Users in Room

481,939

Created

1581 days ago

POST http://tryhackme.com/login

Go

POST /login HTTP/1.1
Host: tryhackme.com
User-Agent: Mozilla/5.0 Firefox/87.0
Content-Length: 29
Content-Type: application/x-www-form-urlencoded

username=thm&password=letmein

Response

HTTP/1.1 200 Ok
Server: nginx/1.15.8
Mon, 8 Sep 2025 15:14:44 GMT
Content-Type: text/html; charset=utf-8
Content-Length: 256
Last-Modified: Mon, 8 Sep 2025 15:14:44 GMT

<html>
<head>
<title>TryHackMe</title>
</head>
<body>
You logged in! Welcome Back THM{HTTP_REQUEST_MASTER}
</body>
</html>

THM Browser

You logged in! Welcome Back THM{HTTP_REQUEST_MASTER}

How HTTP Works v2b

Flag(s):

- THM {INVALID_HTTP_CERT}
- THM {YOU_ARE_IN_THE_ROOM}
- THM {YOU_FOUND_THE_BLOG}
- THM {USER_IS_DELETED}
- THM {USER_HAS_UPDATED}
- THM {HTTP_REQUEST_MASTER}

Lessons Learned:

- I successfully made HTTP requests via a simulation.

Room 2: DNS in Detail

Summary:

This room explores the Domain System and its functionalities in web servers

Objective:

- To dissect the Domain System and get to its core structures
- To explore the hierarchy of domains, record types, and how requests for domains are made

Tools Used:

- nslookup

Steps Taken:

Task 1: What is DNS

The screenshot shows a web browser at the URL `tryhackme.com/room/dnsindetail`. The page has a dark header with navigation icons and a "New Chrome available" notification. Below the header, a progress bar indicates "Room progress (1%)".

The main content area features a task card titled "Task 1 What is DNS?". The card contains the following text:

What is DNS?

DNS (Domain Name System) provides a simple way for us to communicate with devices on the internet without remembering complex numbers. Much like every house has a unique address for sending mail directly to it, every computer on the internet has its own unique address to communicate with it called an IP address. An IP address looks like the following 104.26.10.229, 4 sets of digits ranging from 0 - 255 separated by a period. When you want to visit a website, it's not exactly convenient to remember this complicated set of numbers, and that's where DNS can help. So instead of remembering 104.26.10.229, you can remember tryhackme.com instead.

Answer the questions below

What does DNS stand for?

Domain Name System

Correct Answer

Below the task card, there is a list of other tasks in the room:

- Task 2 Domain Hierarchy
- Task 3 Record Types
- Task 4 Making A Request
- Task 5 Practical

At the bottom of the page, there is a footer section with the following information:

Created by	Room Type	Users in Room	Created
tryhackme AshirMasood	Free Room. Anyone can deploy virtual machines	543,923	1580 days ago

Task 2: Domain Hierarchy

tryhackme.com/room/dnsindetail

Room progress (35%)

Level Domain). Historically a gTLD was meant to tell the user the domain name's purpose; for example, a .com would be for commercial purposes, .org for an organization and .gov for government. And a ccTLD was used for geographical purposes, for example, .ca for sites based in Canada, .co.uk for sites based in the United Kingdom. Due to such demand, there is an influx of new gTLDs ranging from .online, .club, .website, .biz and so many more. For a full list of over 2000 TLDs [click here](#).

Woop woopl! Your answer is correct

Second-Level Domain

Taking [tryhackme.com](#) as an example, the .com part is the TLD, and tryhackme is the Second Level Domain. When registering a domain name, the second-level domain is limited to 63 characters + the TLD and can only use a-z 0-9 and hyphens (cannot start or end with hyphens or have consecutive hyphens).

Subdomain

A subdomain sits on the left-hand side of the Second-Level Domain using a period to separate it; for example, in the name [admin.tryhackme.com](#) the admin part is the subdomain. A subdomain name has the same creation restrictions as a Second-Level Domain, being limited to 63 characters and can only use a-z 0-9 and hyphens (cannot start or end with hyphens or have consecutive hyphens). You can use multiple subdomains split with periods to create longer names, such as [jupiter.servers.tryhackme.com](#). But the length must be kept to 253 characters or less. There is no limit to the number of subdomains you can create for your domain name.

Answer the questions below

What is the maximum length of a subdomain?

63

✓ Correct Answer

🔑 Hint

Which of the following characters cannot be used in a subdomain (3 b _ -)?

-

✓ Correct Answer

What is the maximum length of a domain name?

253

✓ Correct Answer

What type of TLD is .co.uk?

ccTLD

✓ Correct Answer

Task 3: Record Types

tryhackme.com/room/dnsindetail

Room progress (50%)

like [alt1.aspm1.google.com](#). These records also come with a priority flag. This tells the client in which order to try the servers, this is perfect for if the main server needs to be sent to a backup server.

Woop woopl! Your answer is correct

TXT Record

TXT records are free text fields where any text-based data can be stored. TXT records have multiple uses, but some common ones can be to list servers that have the authority to send an email on behalf of the domain (this can help in the battle against spam and spoofed email). They can also be used to verify ownership of the domain name when signing up for third party services.

Answer the questions below

What type of record would be used to advise where to send email?

MX

✓ Correct Answer

What type of record handles IPv6 addresses?

AAAA

✓ Correct Answer

Task 4: Making A Request

Task 5: Practical

How likely are you to recommend this room to others?

1 2 3 4 5 6 7 8 9 10

Submit now

Task 4: Making A Request

TryHackMe | DNS in Detail | file:///C:/Users/Elitebook | Extending your network | Download file | iLovePDF | ilovepdf merged.pdf | New Chrome available

tryhackme.com/room/dnsindetail

Room progress (74%)

is found locally, this is sent back to your computer, and your request ends here (this is common for popular and heavily requested services such as Google, Facebook, Twitter). If the request cannot be found locally, a journey begins to find the correct answer, starting with the internet's root DNS servers.

3. The root servers act as the DNS backbone of the internet, their job is to redirect you to the correct Top Level Domain Server, depending on your request. If, for example, you request www.tryhackme.com, the root server will recognise the Top Level Domain of .com and refer you to the correct TLD server that deals with .com addresses.

4. The TLD server holds records for where to find the authoritative server to answer the DNS request. The authoritative server is often also known as the nameserver for the domain. For example, the name server for tryhackme.com is kjp.ns.cloudflare.com and uma.ns.cloudflare.com. You'll often find multiple nameservers for a domain name to act as a backup in case one goes down.

5. An authoritative DNS server is the server that is responsible for storing the DNS records for a particular domain name and where any updates to your domain name DNS records would be made. Depending on the record type, the DNS record is then sent back to the Recursive DNS Server, where a local copy will be cached for future requests and then relayed back to the original client that made the request. DNS records all come with a TTL (Time To Live) value. This value is a number represented in seconds that the response should be saved for locally until you have to look it up again. Caching saves on having to make a DNS request every time you communicate with a server.

Answer the questions below

What field specifies how long a DNS record should be cached for?

TTL ✓ Correct Answer

What type of DNS Server is usually provided by your ISP?

recursive ✓ Correct Answer

What type of server holds all the records for a domain?

authoritative ✓ Correct Answer

Task 5: Practical

tryhackme.com/room/dnsindetail

Room completed (100%)

Task 3 Record Types

Task 4 Making A Request

Task 5 Practical

Using the website on the right, we can build requests to make DNS queries and view the results. The website will also show you the command you'd need to run on your own computer if you wished to make the requests yourself. [View Site](#)

Answer the questions below

What is the CNAME of shop.website.thm?

shops.myshopify.com ✓ Correct Answer [Hint](#)

What is the value of the TXT record of website.thm?

TtIM[7012DAG0997F35A9516C2E16D2944FF] ✓ Correct Answer [Hint](#)

What is the numerical priority value for the MX record?

30 ✓ Correct Answer [Hint](#)

What is the IP address for the A record of www.website.thm?

10.10.10 ✓ Correct Answer [Hint](#)

How likely are you to recommend this room to others?

DNS type subdomain [Send DNS Request](#)

```
Address: 127.0.0.53#53
Non-authoritative answer:
website.thm text = "THM(70128BA60997F35A9516C2E16D2944FF)"

user@thm:~$ nslookup --type=MX website.thm
Server: 127.0.0.53
Address: 127.0.0.53#53
Non-authoritative answer:
website.thm mail exchanger = 30 alt4.aspmx.l.google.com

user@thm:~$ nslookup --type=A website.thm
Server: 127.0.0.53
Address: 127.0.0.53#53
Non-authoritative answer:
Name: website.thm
Address: 10.10.10.10

user@thm:~$ nslookup website.thm
```

How DNS Works

Flag(s):

- THM {7012BBA60997F35A95162E16D2944FF}

Lessons Learned:

- I successfully used the nslookup command to explore DNS CNAME and record types, via a simulation

Room 3: How Websites Work

Summary:

This room explores the functionality of websites and their risk of security breaches

Objective:

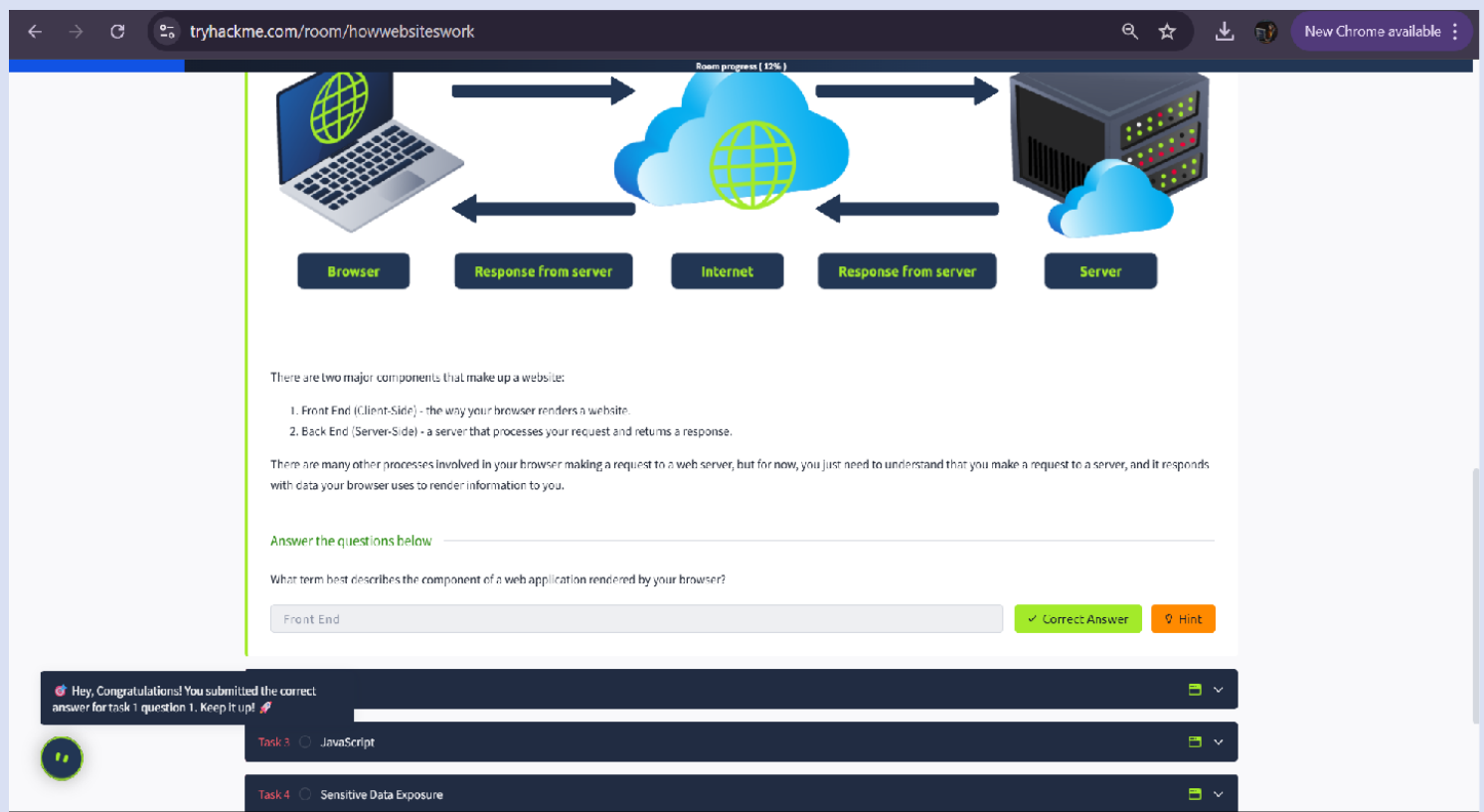
To understand how websites are created and their vulnerabilities that could lead to potential security risks

Tools Used:

- No tool(s) used

Steps Taken:

Task 1: How Websites Work



tryhackme.com/room/howwebsiteswork

Room progress (12%)

Browser → Internet → Server

Response from server ← Internet ← Response from server

There are two major components that make up a website:

1. Front End (Client-Side) - the way your browser renders a website.
2. Back End (Server-Side) - a server that processes your request and returns a response.

There are many other processes involved in your browser making a request to a web server, but for now, you just need to understand that you make a request to a server, and it responds with data your browser uses to render information to you.

Answer the questions below

What term best describes the component of a web application rendered by your browser?

Front End

✓ Correct Answer

Hint

Hey, Congratulations! You submitted the correct answer for task 1 question 1. Keep it up!

Task 3 ☐ JavaScript

Task 4 ☐ Sensitive Data Exposure

Task 2: HTML

tryhackme.com/room/howwebsiteswork

Room progress (50%)

You can view the HTML of any website by right-clicking and selecting "View Page Source" (Chrome) / "Show Page Source" (Safari).

Answer the questions below

Let's play with some HTML! First click the "View Site" button inside this task. On the right-hand side, you should see a box that renders HTML - if you enter some HTML into the box and click the green "Render HTML Code" button, it will render your HTML on the page; you should see an image of some cats.

No answer needed ✓ Correct Answer

One of the images on the cat website is broken - fix it, and the image will reveal the hidden text answer!

HTMLHERO ✓ Correct Answer Hint

Add a dog image to the page by adding another img tag () on line 11. The dog image location is img/dog-1.png. What is the text in the dog image?

DOGHTML ✓ Correct Answer Hint

Task 3 JavaScript

Task 4 Sensitive Data Exposure

Task 5 HTML Injection

Hey, Congratulations! You submitted the correct answer for task 1 question 1. Keep it up! 🎉

comment this room to others?

1 2 3 4 5 6 7 8 9 10

Submit now

HTML Code

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>TryHackMe HTML editor</title>
5   </head>
6   <body>
7     <h1>Cat website</h1>
8     <p>See images of all my cats!</p>
9     <img src='img/cat-1.jpg'>
10    <img src='img/cat-2.jpg'>
11    <img src='img/dog-1.png'>
12  </body>
13 </html>
```


Render HTML Code

Type HTML into the box above, then click the "Render HTML" button to see how it looks

Rendered HTML Code

Cat Website!

See images of all my cats!



HTMLHERO

DOGHTML

HTML Editor

Task 3: JavaScript

tryhackme.com/room/howwebsiteswork

Room progress (50%)

Answer the questions below

Click the "View Site" button on this task. On the right-hand side, add JavaScript that changes the text of the "Hack the Planet" button.

Add the button HTML from this task that changes the element's text to "Button Clicked" on the editor on the right. Update the code by clicking the "Render HTML+JS Code" button and then click the button.

No answer needed Complete Hint

Task 4 Sensitive Data Exposure

Task 5 HTML Injection

How likely are you to recommend this room to others?

1 2 3 4 5 6 7 8 9 10

Submit now

Hey, Congratulations! You submitted the correct answer for task 1 question 1. Keep it up! 🎉

Room Type Users in Room Created

one can deploy virtual machines 354,477 1624 days ago (without being subscribed!)

Copyright TryHackMe 2018-2025

HTML + Javascript Code

```
8 <script type="text/javascript">
9   document.getElementById("demo").innerHTML = "Hack the Planet"
10 </script>
11 </body>
12 </html>
```

Render HTML+JS Code

Type HTML/JS into the box above, then click the "Render HTML+JS" button to see how it looks

Rendered HTML Code

Hack the Planet

HTML Editor JavaScript Editor

tryhackme.com/room/howwebsiteswork

Room progress (30%)

HTML elements can also have events, such as "onclick" or "onmouseover" that execute JavaScript when the event occurs. The following code changes the text of the element with the demo ID to Button Clicked: `<button onclick="document.getElementById('demo').innerHTML = 'Button Clicked';">Click Me</button>` - onclick events can also be defined inside the JavaScript script tags, and not on elements directly.

Answer the questions below

Click the "View Site" button on this task. On the right-hand side, add JavaScript that changes the demo element's content to "Hack the Planet"

JSISFIUN

Correct Answer

Hint

Add the button HTML from this task that changes the element's text to "Button Clicked" on the editor on the right, update the code by clicking the "Render HTML+JS Code" button and then click the button.

No answer needed

Correct Answer

Hint

Task 4 Sensitive Data Exposure

Task 5 HTML Injection

How likely are you to recommend this room to others?

12345678910

Submit now

Created by

Room Type

Users in Room

Created

tryhackme

Maxablancas

Free Room. Anyone can deploy virtual machines

354,477

1624 days ago

HTML + Javascript Code

Render HTML+JS Code

```
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <title>tryHackMe Editor</title>
5   </head>
6   <body>
7     <div id="demo">Hi there!</div>
8     <script type="text/javascript">
9       document.getElementById("demo").innerHTML = "Hack the Planet"
10    </script>
11    <button>
12      onclick=document.getElementById("demo").innerHTML = "Button Clicked";<click Me!
13    </button>
14  </body>
15 </html>
```

Type HTML/JS into the box above, then click the "Render HTML+JS" button to see how it looks

↓

Rendered HTML Code

Hack the Planet

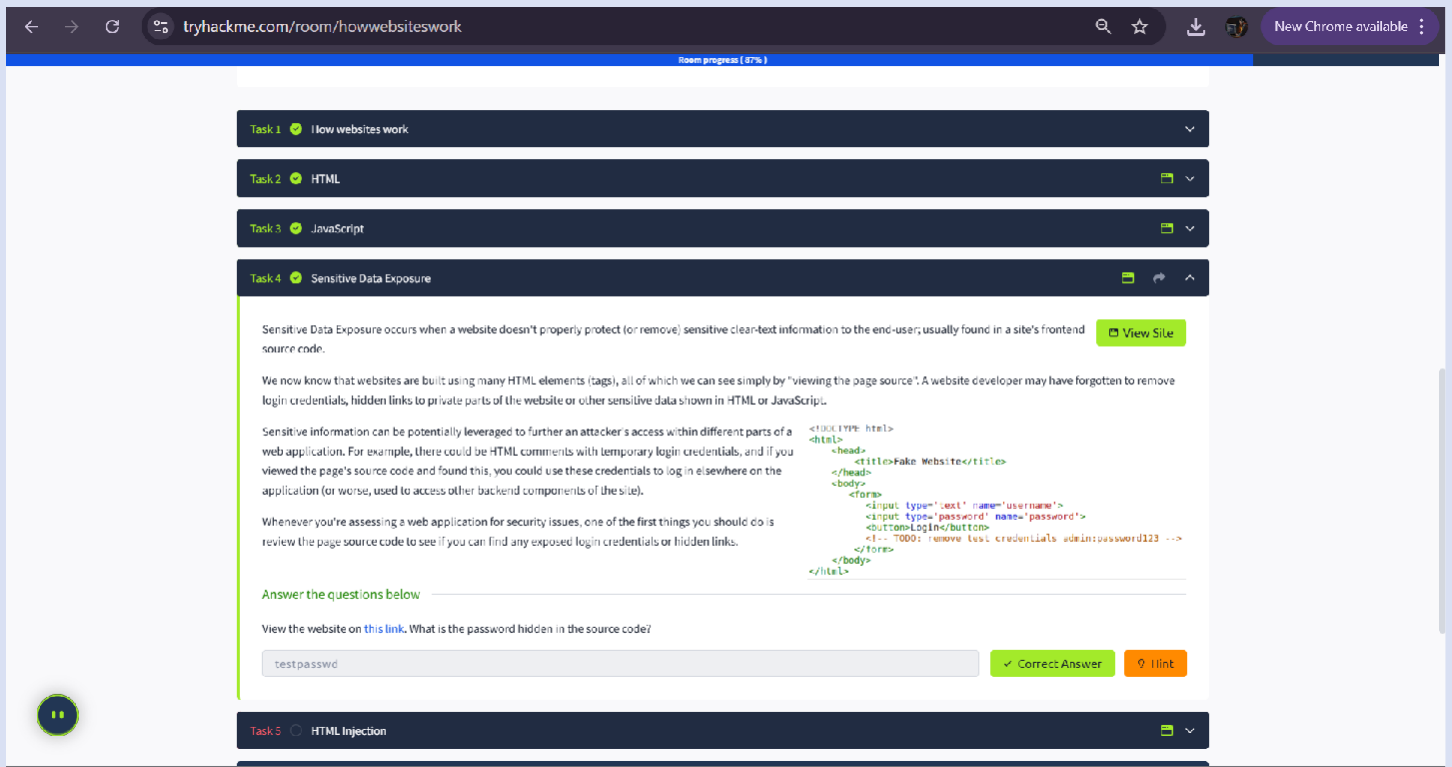
onclick=document.getElementById("demo").innerHTML = "Button Clicked";<click Me!

Task 4: Sensitive Data Exposure

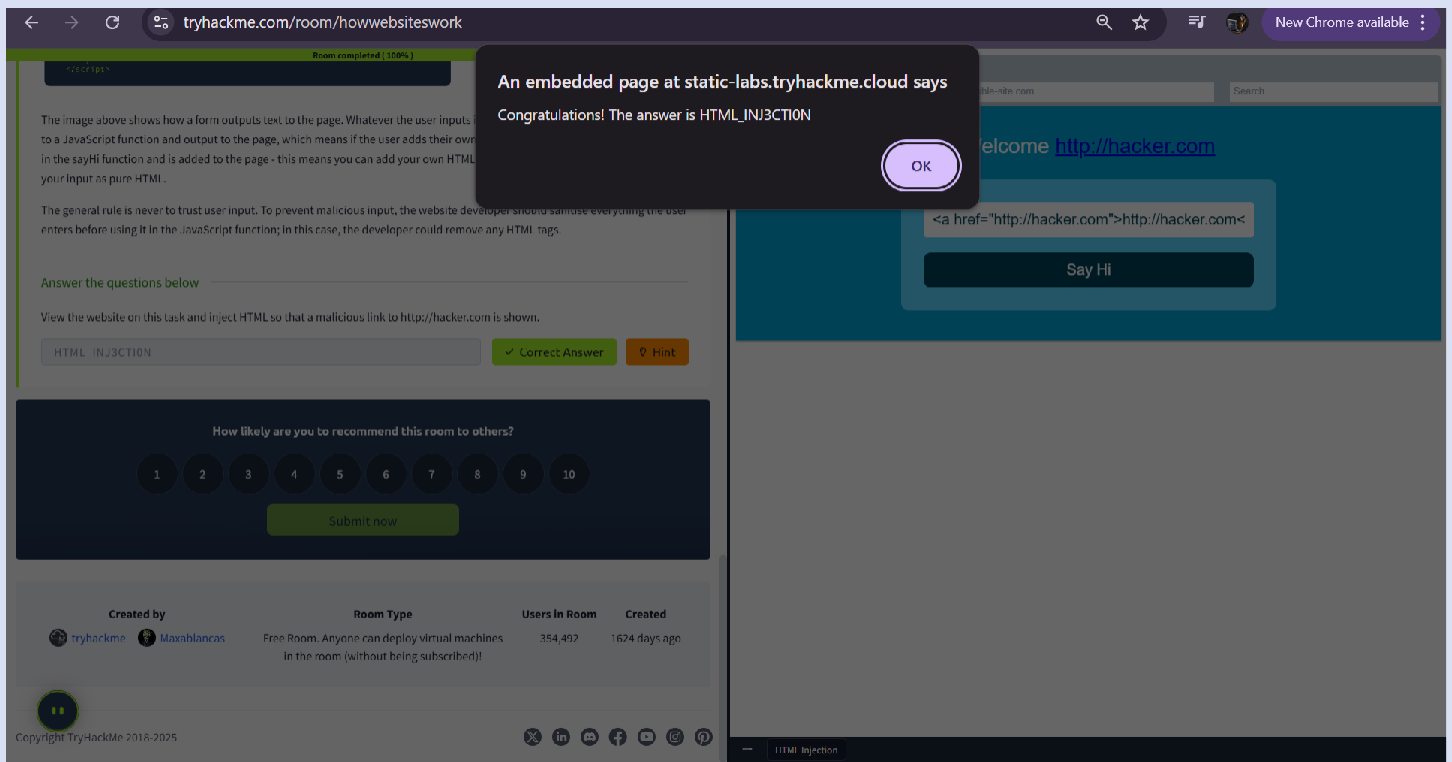
view-source:https://static-labs.tryhackme.cloud/sites/howwebsiteswork/html_data_exposure/

Line wrap

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>How websites work</title>
5   <link rel="stylesheet" href="css/style.css"></link>
6 </head>
7
8 <body>
9   <div id="html-code-box">
10     <div id="html-bar">
11       <span id="html-url">https://vulnerable-site.com</span>
12     </div>
13     <div class="theme" id="html-code">
14       <div class="logo-pos"></div>
15       <p id="login-msg"></p>
16       <form method="post" id="form" autocomplete="off">
17         <div class="form-field">
18           <input class="input-text" type="text" name="username" placeholder="Username..">
19         </div>
20         <div class="form-field">
21           <input class="input-text" type="password" name="password" placeholder="Password..">
22         </div>
23         <button onclick="login()" type="button" class="login">Login</button>
24       </form>
25       <!--
26         TODO: Remove test credentials!
27         Username: admin
28         Password: testpasswd
29       -->
30     </div>
31     <div class="footer">Copyright © Vulnerable Website</div>
32   </div>
33   <script src="js/script.js"></script>
34 </body>
35 </html>
```



Task 5: HTML Injection



Flag(s):

- No flag(s) found

Lessons Learned:

- I learned how HTML and JavaScript are interlinked in a website's backend and how one can manipulate the front end with an HTML injection, in the case of unfiltered user input

Room 4: Putting It All Together

Summary:

This room summarizes the web server's functionalities and network components

Objective:

- To simulate the whole structure of web services

Tools Used:

- No tool(s) used

Steps Taken:

Task 1: Putting it All Together

← → ↻ tryhackme.com/room/puttingitaltogether 🔍 ☆ 🗖 New Chrome available ⋮

Room progress (12%)

Task 1 Putting It All Together ^

Putting It All Together

From the previous modules, you'll have learned that quite a lot of things go on behind the scenes when you request a webpage in your browser.

To summarise, when you request a website, your computer needs to know the server's IP address it needs to talk to; for this, it uses DNS. Your computer then talks to the web server using a special set of commands called the HTTP protocol; the webserver then returns HTML, JavaScript, CSS, Images, etc., which your browser then uses to correctly format and display the website to you.

```
graph LR; A[Request website in your browser] --> B[Find web server IP address with DNS]; B --> C[Connect to webserver]; C --> D[View website]
```

There are also a few other components that help the web run more efficiently and provide extra features.

Answer the questions below

I've read this...

Correct Answer

Task 2 Other Components ▾

Task 3 How Web Servers Work ▾

Task 4 Quiz ▾

Task 2: Other Components


tryhackme.com/room/puttingitaltogether

Room progress (50%)

simple plain text file up to complex clusters of multiple servers providing speed and resilience. You'll come across some common databases: MySQL, MSSQL, MongoDB, Postgres, and more; each has its specific features.

WAF (Web Application Firewall)

A WAF sits between your web request and the web server; its primary purpose is to protect the webserver from hacking or denial of service attacks. It analyses the web requests for common attack techniques, whether the request is from a real browser rather than a bot. It also checks if an excessive amount of web requests are being sent by utilising something called rate limiting, which will only allow a certain amount of requests from an IP per second. If a request is deemed a potential attack, it will be dropped and never sent to the webserver.



Answer the questions below

What can be used to host static files and speed up a clients visit to a website?

CDN

✓ Correct Answer

What does a load balancer perform to make sure a host is still alive?

health check

✓ Correct Answer

What can be used to help against the hacking of a website?

WAF

✓ Correct Answer

Hey, Congratulations! You submitted the correct answer for task 2 question 3. Keep it up!

Web Servers Work

Task 4 Quiz

Task 3: How Web Servers Work

tryhackme.com/room/puttingitaltogether

Room progress (87%)

```
<html><body>Hello <?php echo $_GET["name"]; ?></body></html>
```

It would output the following to the client:

```
<html><body>Hello adam</body></html>
```

You'll notice that the client doesn't see any PHP code because it's on the **Backend**. This interactivity opens up a lot more security issues for web applications that haven't been created securely, as you learn in further modules.

Answer the questions below

What does web server software use to host multiple sites?

Virtual Hosts

✓ Correct Answer

What is the name for the type of content that can change?

Dynamic

✓ Correct Answer

Does the client see the backend code? Yay/Nay

Nay

✓ Correct Answer

Task 4 Quiz

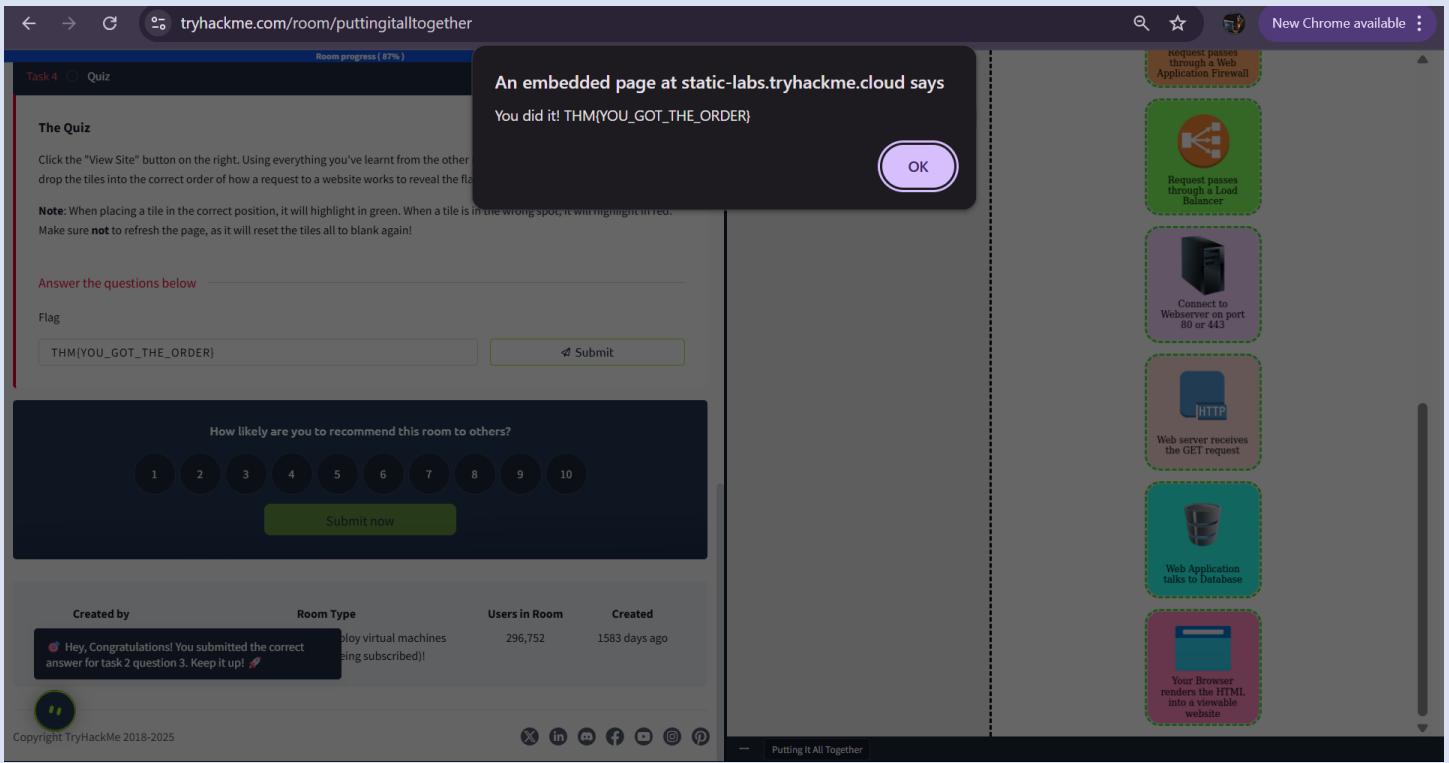
How likely are you to recommend this room to others?

1 2 3 4 5 6 7 8 9 10

Submit now

Hey, Congratulations! You submitted the correct answer for task 2 question 3. Keep it up!

Task 4: Quiz



Flag(s):

- THM{YOU_GOT_THE_ORDER}

Lessons Learned:

- I successfully outlined the structure of a web service.