



Green University

Midterm Exam Assignment
Course Title: Web Programming
Course Code: CSE 309
Section: PC DA

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Ans to the Question no-01

Whenever we visit a page on the web, our computer uses the Hypertext Transfer Protocol (HTTP) to download that page from another computer somewhere on the Internet.

Let's step through that process.

Step 1: Direct browser to URL

When we want to browse the web, we can use many types of computers (like laptops, desktops, and phones), as long as the computer has a browser application installed. The user either types a Uniform Resource Locator (URL) in the browser or follows a link from an already opened page:

Like: ``https://docs.google.com/document``.

Notice something about that URL: it starts with "HTTP". That's a signal to the browser that it needs to use HTTP to fetch the document for that URL.

Step 2: Browser looks up IP

We typically type nice human-friendly URLs into browsers, like "khanacademy.org" and "wikipedia.org". Those domain names map to IP addresses, the true location of the domain's computers. That's handled by the Domain Name System.

The browser uses a DNS resolver to map the domain to an IP address:

Step 3: Browser sends HTTP request

Once the browser identifies the IP address of the computer hosting the requested URL, it sends an HTTP request.

An HTTP request can be as short as two lines of text:

GET /index.html HTTP/1.1 Host: www.example.com

The first word is the HTTP verb: "GET". There are other verbs for other actions on the web, like submitting form data ("POST").

The next part specifies the path: "/index.html". The host computer stores the content of the entire website, so the browser needs to be specific about which page to load.

The final part of the first line specifies the protocol and the version of the protocol: "HTTP/1.1".

The second line specifies the domain of the requested URL. That's helpful in case of a host computer stores the content for multiple websites.

Step 4: Host sends the back HTTP response

Once the host computer receives the HTTP request, it sends back a response with both the content and metadata about it.

The HTTP response starts similarly to the request:

HTTP/1.1 200 OK The response begins with the protocol and version, "HTTP/1.1". The next number is the very important HTTP status code, and in this case, it's 200. That code represents a successful retrieval of the document ("OK").

If the server failed to retrieve the document, the status codes provide more information, like if the failure was due to user error or server error. For example, the most well-known status code is 404 ("File not found").

That happens whenever you visit a path on a server that doesn't correspond to any document. Since users have a habit of typing URLs incorrectly, 404s happen frequently, so websites often have fun 404 web pages. Try typing a nonsense Khan Academy URL and see what happens!

The next part of an HTTP response is the headers. They give the browser additional details and help the browser to render the content.

These two headers are common to most requests:

Content-Type: text/html; charset=UTF-8 Content-Length: 208

The content type tells the browser what type of document it's sending back. A common type on the web is "text/html", as all webpages are HTML text files. Other types are possible, like images ("image/png"), videos ("video/MPEG"), script ("application/javascript") and anything else you can load in your browser.

The content length gives the length of the document in bytes, which helps the browser know how long a file will take to download.

Finally, the HTTP response writes out the actual document requested. This page is a simple HTML file:

```
<!DOCTYPE html>
<html>
  <head>
    <title>Example Domain</title>
  </head>
  <body>
    <h1>Example Domain</h1>
    <p>This domain is to be used for illustrative examples in documents.</p>
  </body>
</html>
```

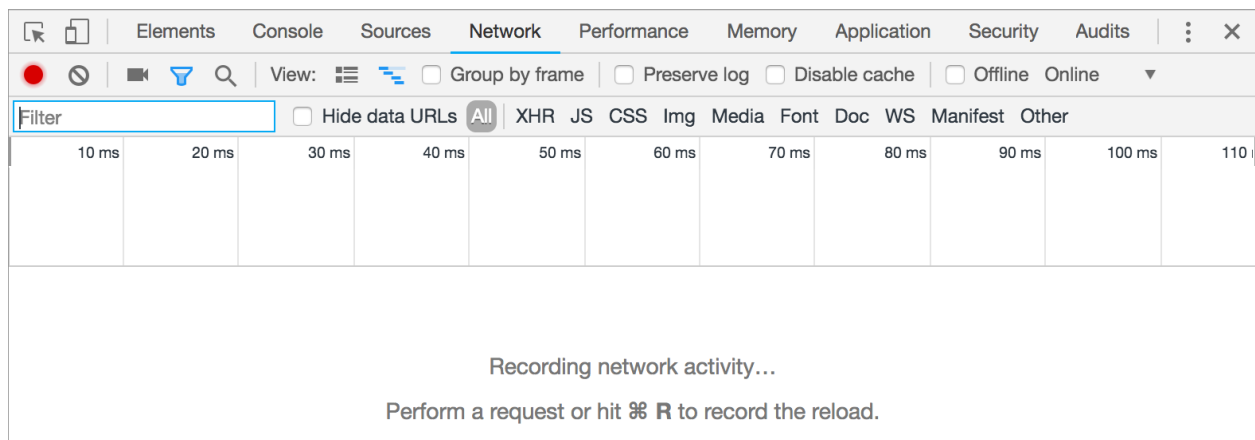
Step 5: The browser renders the response

The browser now has all the information it needs to render the document requested.

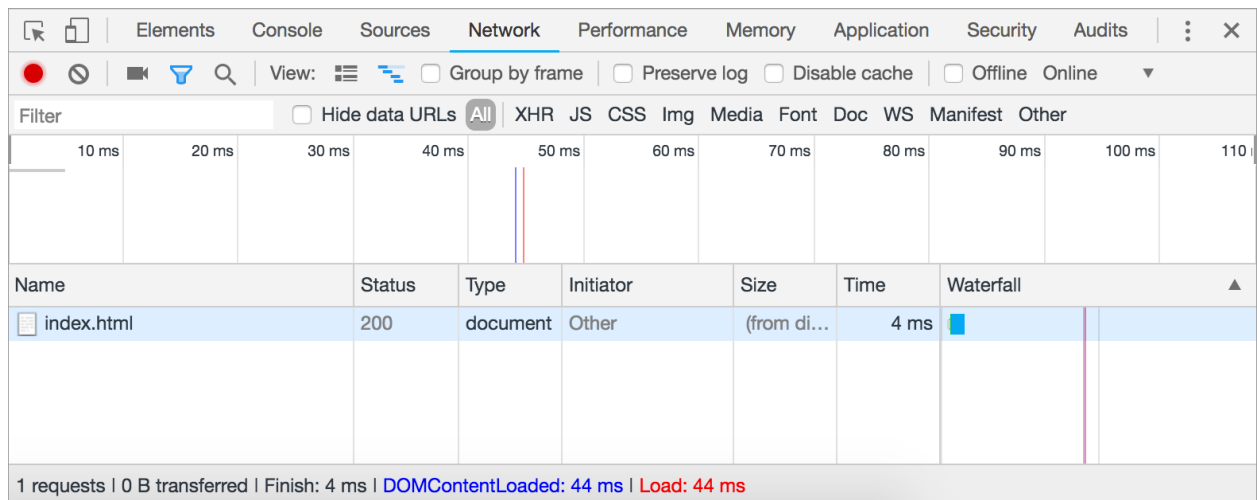
Now we can see what happened.

Let's try it in Chrome.

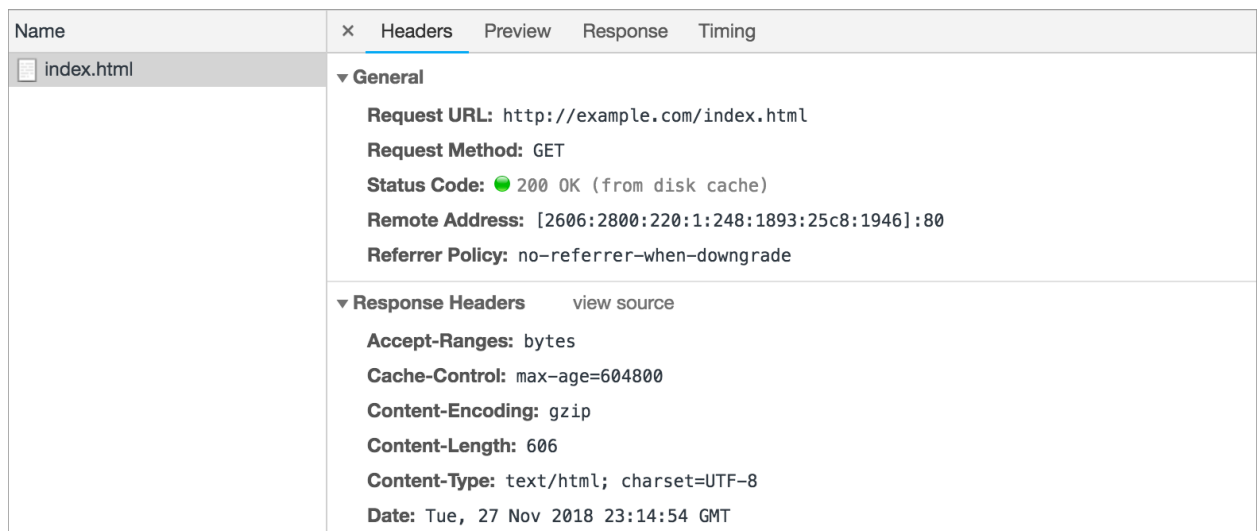
First, we need to open the Chrome developer tools. One way to do that is to open the "View" menu, then select "Developer" → "Developer Tools". Once that pops open, select the "Network" tab.



Next, type a URL in the browser bar, like "http://www.example.com/index.html". An HTTP request shows up in the console, and the browser renders the page.



We can dig into that request to see the juicy details if we want. Click "index.html" under the "Name" column". A tabbed interface pops up and defaults to a "Headers" tab.



The "Response headers" include headers discussed above, like "Content-Type" and "Content-Length", plus lots of other interesting headers. The actual HTML content of the response is another tab, "Response".

Name	x	Headers	Preview	Response	Timing
index.html				<pre> 1 <!doctype html> 2 <html> 3 <head> 4 <title>Example Domain</title> 5 6 <meta charset="utf-8" /> 7 <meta http-equiv="Content-type" content="text/html; charset=utf-8" /> 8 <meta name="viewport" content="width=device-width, initial-scale=1" /> </pre>	

HTTP and TCP/IP

HTTP is a protocol that's built on top of the TCP/IP protocols.

Each HTTP request is inside an IP packet, and each HTTP response is inside another IP packet--or more typically, multiple packets, since the response data can be quite large.

There are many other protocols built on top of TCP/IP, like protocols for sending an email (SMTP, POP, IMAP) and uploading files (FTP).

All of these protocols enable us to use the Internet to connect with other computers in useful ways and to communicate and collaborate across wide distances.

Ans to the Question no-02

Live site: [https://naz365.github.io/test-site/`](https://naz365.github.io/test-site/)

Html

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta http-equiv="X-UA-Compatible" content="IE=edge" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <!-- bootstrap -->
    <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/css/bootstrap.min.cs
s"
      rel="stylesheet"
integrity="sha384-EVSTQN3/azprG1Anm3QDgpJLIm9Nao0Yz1ztcQTWFspD3yD65VohhpUuCO
mLASjC"
      crossorigin="anonymous"
    />
    <!-- end -->
    <link rel="stylesheet" href="index.css" />
    <title>portfolio</title>
  </head>
  <body>
    <header id>
      <div class="navDiv">
        <nav class="navbar navbar-expand-lg navbar-dark bg-dark">
          <div class="container-fluid">
            <button
              class="navbar-toggler"
              type="button"
              data-bs-toggle="collapse"
```

```

data-bs-target="#navbarTogglerDemo01"
aria-controls="navbarTogglerDemo01"
aria-expanded="false"
aria-label="Toggle navigation"
>
<span class="navbar-toggler-icon"></span>
</button>
<div class="collapse navbar-collapse" id="navbarTogglerDemo01">
  <a class="navbar-brand" href="#">
     portfolio
  </a>
  <ul class="navbar-nav me-auto mb-2 mb-lg-0">
    <li class="nav-item">
      <a class="nav-link active" aria-current="page" href="#"
        >Home</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="#about-section">About-me</a>
    </li>
    <li class="nav-item">
      <a class="nav-link" href="#contact-section">Contact</a>
    </li>
  </ul>
  <form class="d-flex">
    <input
      class="form-control me-2"
      type="search"
      placeholder="Search"
      aria-label="Search"
    />
    <button class="btn btn-outline-success" type="submit">
      Search

```



```

        </button>
    </form>
</div>
</div>
</nav>
</div>
<section class="hero-section">
    <div class="hero-text">
        <h1>I'm Mohammad Nazmul Hossain</h1>
        <p>A dreamer, a `believer`, and a very ordinary man.</p>
    </div>
</section>
</header>

<section class="back_color">
    <div class="about-me" id="about-section">
        <div class="resume">
            <div class="header-bio">
                <h1>Mohammad Nazmul Hossain</h1>
            </div>
            <p>ID: <strong>193902031</strong></p>
            <p>Date of Birth : 15/01/1998.</p>
            <p>Nationality : <strong>Bangladeshi</strong></p>
            <p>Region : Islam</p>
            <p>Father's name: Md. Ismail Hossain</p>
            <p>Present address : Ga-125, Middle Badda, Dhaka-1212,
Bangladesh</p>
            <p>
                Permanent address : H-253, South Khailkur, Gasa, Gazipur-1704,
                Bangladesh
            </p>
        </div>
    </div>
    <div>
        <table

```

```
class="
    table table-dark table-bordered table-striped
    border-primary
    table-responsive
    caption-top
"
>
<caption class="text-center bg-dark text-info">
    <strong> Educational info </strong>
</caption>
<thead>
    <tr>
        <th scope="col">No</th>
        <th scope="col">Name of Exam</th>
        <th scope="col">Year</th>
        <th scope="col">GPA</th>
    </tr>
</thead>
<tbody>
    <tr>
        <th scope="row">1</th>
        <td>Dakhil</td>
        <td>2017</td>
        <td>5.00</td>
    </tr>
    <tr>
        <th scope="row">2</th>
        <td>Alim</td>
        <td>2019</td>
        <td>4.96</td>
    </tr>
    <tr>
        <th scope="row">3</th>
        <td>Bsc in CSE</td>
        <td>2019-2024</td>
```

```

        <td>3+</td>
    </tr>
</tbody>
</table>
</div>
</section>
<section class="contact-me m-4" id="contact-section">
    <h2 class="text-center">Contact with me</h2>
    <div class="container">
        <div class="row">
            <div class="col-md-6">
                <form class="row g-3">
                    <div class="col-12">
                        <label for="Name" class="form-label">Name</label>
                        <input
                            type="text"
                            id="Nameinput"
                            class="form-control"
                            placeholder="Name"
                            aria-label="First name"
                            onchange="handleNameCharlen()"
                        />
                    </div>

                    <div class="col-12">
                        <label for="inputEmail4" class="form-label">Email</label>
                        <input
                            type="email"
                            class="form-control"
                            id="inputEmail4"
                            onchange="handleEmailCharlen()"
                        />
                    </div>

                    <div class="col-12">

```

```
<label for="inputAddress" class="form-label">Address</label>
<input
  type="text"
  class="form-control"
  id="inputAddress"
  placeholder="1234 Main St"
/>
</div>
<div class="col-12">
  <label for="inputDate" class="form-label">Date</label>
  <input
    type="date"
    class="form-control"
    id="inputDate"
    name="date"
  />
</div>

<div class="col-md-6">
  <label for="inputCity" class="form-label">City</label>
  <input type="text" class="form-control" id="inputCity" />
</div>
<div class="col-md-4">
  <label for="inputState" class="form-label">State</label>
  <select id="inputState" class="form-select">
    <option selected>Choose ... </option>
    <option> ... </option>
  </select>
</div>
<div class="col-md-2">
  <label for="inputZip" class="form-label">Zip</label>
  <input type="text" class="form-control" id="inputZip" />
</div>

<div class="mb-3">
```

```
<label for="exampleInputNumber1" class="form-label"
  >Mobile number</label
>
<input
  type="number"
  class="form-control"
  id="exampleInputNumber1"
  placeholder="+880"
  aria-describedby="numberHelp"
/>
<div id="numberHelp" class="form-text">
  We'll never share your information with anyone else.
</div>
</div>
<div class="col-12">
  <button
    type="submit"
    class="btn btn-primary"
    onclick="handleSubmit()"
  >
    Submit
  </button>
</div>
</form>
</div>
<div class="col-md-6">
  
</div>
</div>
</div>
</section>
```

```

<section>
  <div class="footer-dark">
    <footer>
      <div class="container">
        <div class="row">
          <div class="col-sm-6 col-md-3 item">
            <h3>Services</h3>
            <ul>
              <li><a href="#">Web design</a></li>
              <li><a href="#">Development</a></li>
              <li><a href="#">Hosting</a></li>
            </ul>
          </div>
          <div class="col-sm-6 col-md-3 item">
            <h3>About</h3>
            <ul>
              <li><a href="#">my project</a></li>
              <li><a href="#">Team</a></li>
            </ul>
          </div>
          <div class="col-md-6 item text">
            <h3>Naz365</h3>
            <p>
              A Front-end Web Developer. Committed to making some
              hassle-free and fast Websites for his clients. Love to
              create
              new ideas and also love to implement ideas as well. A
              dreamer,
              a `believer`, and a very ordinary man.
            </p>
          </div>
          <div class="col item social">
            <a href="#"><i class="icon ion-social-facebook"></i></a>
            <a href="#"><i class="icon ion-social-twitter"></i></a>
            <a href="#"><i class="icon ion-social-snapchat"></i></a>
          </div>
        </div>
      </div>
    </footer>
  </div>
</section>

```

```

        ><a href="#"><i class="icon ion-social-instagram"></i></a>
      </div>
    </div>
    <p class="copyright">copyright© all-right received by Naz365</p>
  </div>
</footer>
</div>
</section>

<!-- footer -->
<script src="./index.js"></script>
<script
src="https://cdn.jsdelivr.net/npm/bootstrap@5.0.2/dist/js/bootstrap.bundle.m
in.js"

integrity="sha384-MrcW6ZMFYlzcLA8Nl+NtUVF0sA7MsXsP1UyJoMp4YLEuNSfAP+JcXn/tWt
IaxVXM"

  crossorigin="anonymous"
></script>
<script
  src="https://kit.fontawesome.com/8099e62eef.js"
  crossorigin="anonymous"
></script>
</body>
</html>

```

CSS

```
.hero-section {
```

```
background-image: linear-gradient(rgba(0, 0, 0, 0.5), rgba(0, 0, 0, 0.5)),
  url("https://i.ibb.co/c6cr8Hm/IMG20210515173016.jpg");
height: 100vh;
background-size: cover;
background-position: center;
background-repeat: no-repeat;
position: relative;
}

.hero-text {
  text-align: center;
  position: absolute;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  color: white;
}

.about-me {
  height: 70vh;
  background-size: cover;
  background-position: center;
  background-repeat: no-repeat;
  position: relative;
}

.resume {
  text-align: center;
  position: absolute;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  color: black;
}

.footer-dark {
  padding: 50px 0;
```



```
color: #f0f9ff;
background-color: #282d32;
}

.footer-dark h3 {
margin-top: 0;
margin-bottom: 12px;
font-weight: bold;
font-size: 16px;
}

.footer-dark ul {
padding: 0;
list-style: none;
line-height: 1.6;
font-size: 14px;
margin-bottom: 0;
}

.footer-dark ul a {
color: inherit;
text-decoration: none;
opacity: 0.6;
}

.footer-dark ul a:hover {
opacity: 0.8;
}

@media (max-width: 767px) {
.footer-dark .item:not(.social) {
text-align: center;
padding-bottom: 20px;
}
}
```

```
.footer-dark .item.text {  
  margin-bottom: 36px;  
}  
  
@media (max-width: 767px) {  
  .footer-dark .item.text {  
    margin-bottom: 0;  
  }  
}  
  
.footer-dark .item.text p {  
  opacity: 0.6;  
  margin-bottom: 0;  
}  
  
.footer-dark .item.social {  
  text-align: center;  
}  
  
@media (max-width: 991px) {  
  .footer-dark .item.social {  
    text-align: center;  
    margin-top: 20px;  
  }  
}  
  
.footer-dark .item.social > a {  
  font-size: 20px;  
  width: 36px;  
  height: 36px;  
  line-height: 36px;  
  display: inline-block;  
  text-align: center;  
  border-radius: 50%;
```

```
box-shadow: 0 0 0 1px rgba(255, 255, 255, 0.4);
margin: 0 8px;
color: #fff;
opacity: 0.75;
}

.footer-dark .item.social > a:hover {
  opacity: 0.9;
}

.footer-dark .copyright {
  text-align: center;
  padding-top: 24px;
  opacity: 0.3;
  font-size: 13px;
  margin-bottom: 0;
}

.back_color {
  background-image: -moz-linear-gradient(
    135deg,
    rgb(209, 215, 250),
    rgb(233, 206, 253)
  );

  background-image: -webkit-linear-gradient(
    135deg,
    rgb(209, 215, 250),
    rgb(233, 206, 253)
  );

  background-image: linear-gradient(
    135deg,
    rgb(209, 215, 250),
    rgb(233, 206, 253)
  );
}
```

```
}
```

JavaScript

```
const handleNameCharlen = () => {  
  let name = document.getElementById("Nameinput").value;  
  if (name.length ≥ 20) {  
    alert("Your Name must be within 20 characters");  
  }  
};  
  
const handleSubmit = () => {  
  let phoneNumber =  
document.getElementById("exampleInputNumber1").value;  
  if (!phoneNumber.includes("+880")) {  
    alert("Phone number must be started with +880");  
  }  
};
```