

## Quiz Submissions - CS571 Fall 2020: Web Technologies Exam 2



Pratusha Singh (username: pratusha@usc.edu)

### Attempt 1

Written: Nov 24, 2020 6:01 PM - Nov 24, 2020 6:42 PM

### Submission View

Your quiz has been submitted successfully.






### Cookies and Privacy Questions [10 pts]

Questions are worth 5 points each.

#### Question 2

3 / 5 points

Select all true properties of cookies. Select all that apply.

-  ☐ Secure cookies are erased when the user closes the browser
-  ☐ Http Only cookies are invisible to JavaScript
-  ☐ Cookies can store any information you provide to a site
-  ☐ Persistent cookies may not be deleted
-  ☐ Cookies can track your IP address






### Web Security Questions [10 pts]

Each question is worth 5 points.

#### Question 3

4 / 5 points

What are common ways that websites get infected?

-  ☐ Back-end virtual hosting companies attacks
-  ☐ Social networks
-  ☐ Cross-site Spoofing
-  ☐ SQL Injection attacks
-  ☐ XSP Scripting attacks

### REST Questions [5 pts]

Each question is worth 5 points.

### Question 5

4 / 5 points

For REST Web Services, select the statements that are true.

- ✓ ☐ REST services are based on HTTP/HTTPS
- ✗ ☐ REST services do not offer security
- ✓ ☐ REST services are language dependent
- ✓ ☐ REST services are a W3C recommendation
- ✓ ☐ REST services are platform independent

### High-Performance Websites Questions [5 pts]

Each question is worth 5 points.

### Question 6

4 / 5 points

Which of the following are rules to improve Web site performance? Select all that apply.

- ✓ ☐ Use cookie-free domains
- ✓ ☐ Run Google PageSpeed Insights
- ✓ ☐ Reduce number of DOM elements
- ✗ ☐ Use newer versions of image standards
- ✓ ☐ Use POST for Ajax requests

### Secure Web Communication Questions [5 pts]

### Question 7

2 / 5 points

What are the roles of a Certificate Authority (CA)? Select all that apply.

- ✗ ☐ Sign certificates with CA's public key
- ✓ ☐ Pre-configure browser trust roots
- ✗ ☐ Be trusted by all parties
- ✓ ☐ Guarantee an organization is legitimate
- ✗ ☐ Issue Digital certificates for Intermediate CAs

### HTML5 Questions [10 pts]

**Each question is worth 5 points.**



### Ajax Questions [15 pts]

**Each question is worth the listed points.**

#### Question 13

0 / 1 point

[1 point] Updates to the XMLHttpRequest() specification are being managed by the World Wide Web Consortium (W3C).

-  ☐ True
-  ☐ False

### JQuery Questions [10 pts]

**Each question is worth the points listed.**

#### Question 18



0 / 1 point

[1 point] Consider the following CSS, jQuery and HTML. Will "Text 2" be changed by the jQuery code, underlined and with green dotted border?

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>attributeContainsPrefix demo</title>
  <style>
    a {
      display: inline-block;
    }
  </style>
  <script src="https://code.jquery.com/jquery-3.5.0.js"></script>
</head>
<body>
```

```
<a href="example.html" hreflang="en">Text 1</a>
<a href="example.html" hreflang="en-UK">Text 2</a>
<a href="example.html" hreflang="english">Text 3</a>
```

```
<script>
$( "a[hreflang|='en']" ).css( "border", "3px dotted green" );
</script>
</body>
</html>
```

-  ☐ True
-  ☐ False

#### Question 19

2 / 3 points

[3 points] Which of the following selectors are part of the Basic Filter selectors category? Check all that apply.

✓ ☐ :multiple selector

➡ ✗ ☐ :first

➡ ✓ ☐ :header selector

### Responsive Website Design (RWD) Questions [10 pts]

Each question is worth the points listed.

#### Question 22

2 / 4 points

[4 points] What are properties of the Responsive Web Design (RWD) approach? Select all that apply.

✗ ☐ Easy reading with a minimum of scrolling

➡ ✓ ☐ Adapts to viewing environment

✗ ☐ Uses CSS3 media queries, adaptive grids and flexible images

➡ ✓ ☐ No panning if possible, unless required by the application

▷ View Feedback

### Frameworks Questions [10 pts]

Each question is worth the points listed.

#### Question 25

2 / 3 points

[3 points] Select which of the following are TRUE of Angular (version 8+). Select all that apply.

➡ ✗ ☐ Depends on TypeScript, RxJS and Node

➡ ✓ ☐ Includes a reactive programming library for JavaScript

✓ ☐ Supports *FilterPipe* and *OrderByPipe*

#### Question 27

2 / 4 points

[4 points] Which of the following are TRUE of Node.js? Select all that apply.

➡ ✓ ☐ Maintains several connections per server to make HTTP requests

✗ ☐ Core modules include networking and a fetch() compatible API

✓ ☐ Includes built-in CORS support

➡ ✗ ☐ Includes both synchronous and asynchronous file I/O support

### Serverless Questions [10 pts]

Each question is worth the points listed.

#### Question 28

2 / 3 points

[3 points] Which of the following are TRUE of AWS Lambda? Select all that apply.

✗ ☐ Functions and classes are unit of deployment

✓ ☐ Cost of idle time is small

➡ ✓ ☐ Functions can be triggered by events

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Attempt Score: 83 / 100 - 83 %

Overall Grade (highest attempt): 83 / 100 - 83 %

Done

# Quiz Submissions - CS571 Summer 2021: Web Technologies Exam 2<sup>x</sup>

Aayush Khator (username: khator@usc.edu)

## Attempt 1

Written: Jun 28, 2021 6:00 PM - Jun 28, 2021 6:39 PM

## Submission View

Released: Jun 29, 2021 8:00 AM

### Cookies and Privacy Questions

#### Question 1

1.2 / 2 points

[2 points] Cookies include a number of components, some required, some optional. Select only the required components:

- ✓ ☒ Domain
- ✓ ☐ Secure flag
- ✗ ☒ HttpOnly flag
- ✓ ☒ Name / value pair
- ✗ ☐ Expiration date

#### Question 2

2 / 2 points

[2 points] Select all true properties of cookies. Select all that apply.

**Cookies can track your IP address**



✓ ☒ Http Only cookies are invisible to JavaScript

✓ ☐ Persistent cookies may not be deleted

✓ ☒ Cookies can store any information you provide to a site

✓ ☐ Secure cookies are erased when the user closes the browser

### Question 3

1.2 / 2 points

[2 points] Select all ways to "opt out" of cookies. Select all that apply.

✗ ☒ Install browser extensions

→ ✓ ☒ Use cookie management tool in browser

→ ✓ ☒ Download opt-out cookie

→ ✓ ☒ Select "do not track" in browser

✗ ☒ Change account Preferences on registration sites

### Web Security Questions

### Question 4

1.6 / 2 points

[2 points] What are the most recommended ways to generate strong passwords? Select all that apply.

→ ✓ ☒ Use a very large number of characters

→ ✓ ☒ Use diceware generated passwords

- ✓ ☐ Use passwords that satisfy Microsoft Active Directory settings
- ✓ ☐ Use passwords with low entropy
- ✗ ☒ Use a combinations of 8 or more letters, digits and special characters

### Question 5

1.6 / 2 points

[2 points] Which of the following are Injection Attacks?

- ➡ ✗ ☐ Cross Site Request Forgery (CSRF)
- ➡ ✓ ☒ Search Worms
- ✓ ☐ Content Spoofing
- ➡ ✓ ☒ SQL Injection
- ✓ ☐ DDoS attack

### Question 6

1.6 / 2 points

[2 points] Which types of hacks can cause damage on the client side? Select all that apply.





- ➡ ✓ ☒ Install malicious software
- ✓ ☐ Denial of Service
- ✓ ☐ Deface pages, altering content
- ➡ ✗ ☐ Stealing cookies
- ➡ ✓ ☒ Log user keystrokes

### REST Questions







**Question 7****1.6 / 2 points**

[2 points] For REST Web Services, select the statements that are true. Select all that apply.

-  ☒ REST services are language dependent
-  ☒ REST services do not offer security
-  ☒ REST services are platform independent
-  ☒ REST services can use HTTPS
- ☒ REST services are a W3C recommendation

**High-Performance Websites Questions****Question 8****1.6 / 2 points**

[2 points] Which of the following are ways to reduce the number of HTTP requests? Select all that apply.

-  ☒ Combine Style Sheets
- ☒ Combine cookies
-   ☐ Combine scripts
- ☒ Split images
-  ☒ Use Image Maps

**Question 9****1.2 / 2 points**

[2 points] Which of the following are rules to improve Web site performance? Select all that apply.

-  ☒ Reduce number of DOM elements

- ➡ ✖ ☐ Use newer versions of image standards
- ✓ ☐ Use POST for Ajax requests
- ✖ ✓ ☐ Run Google PageSpeed Insights
- ➡ ✓ ✓ ☐ Use cookie-free domains

## HTML5 Questions

### Question 10

2 / 2 points

[2 points] Which of the following are removed elements in HTML5? Select all that apply.

- ✓ ✓ ☐ center
- ✓ ☐ footer
- ✓ ✓ ☐ font
- ✓ ✓ ☐ frameset
- ✓ ☐ embed

### Question 11

1.6 / 2 points

[2 points] Which of these are the 2 most popular HTML5 video codecs? Select only 2.

- ➡ ✓ ✓ ☐ VP9
- ✖ ✓ ☐ Theora
- ✓ ☐ Ogg
- ➡ ✓ ✓ ☐ H.264

✓ ☐ Audio Video Interleave (AVI)

## Question 12

2 / 2 points

[2 points] Which of the following attributes are not supported in HTML5? Select all that apply.

✓ ☐ colspan

✓ ☒ bgcolor

✓ ☒ align

✓ ☐ controls

✓ ☒ border

## Ajax Questions

## Question 13

2 / 2 points

[2 points] The fetch() API can receive cross-site cookies.

☐ True

✓ ☒ False

## Question 14

0 / 2 points

[2 points] Creating an instance of the XMLHttpRequest object is the same in all latest browser.

➡ ☐ True

✗ ☒ False

**Question 15****2 / 2 points**

[2 points] CORS and server proxy are good ways to avoid cross-domain browser restrictions.

- ✓ ☒ True  
☐ False

**Question 16****2 / 2 points**

[2 points] The web browser displays a visual progress indicator while the XMLHttpRequest is being processed.

- ☐ True  
✓ ☒ False

**Question 17****2 / 2 points**

[2 points] Consider the following code snippet:

```
j = eval("(" + text + ")");
```

Select all answers that are TRUE for such code.

- ✓ ☒ It is part of JSON.parse()  
✓ ☒ It is very unsafe

**Question 18****2 / 2 points**

[2 points] Select all valid XMLHttpRequest() Object properties. Select all that apply.

- ✓ ☐ onReadyState  
✓ ☐ readyStateChange  
✓ ☒ status

**Question 19****2 / 2 points**

**[2 points]** Of the URLs below, select only the ones that have the same origin as <http://www.ajaxbook.com>?

- ✓ ☐ <http://www.ajaxbook.com:443>
- ✓ ☐ <https://www.ajaxbook.com>
- ✓ ☐ <http://carsearch.ajaxbook.com>
- ✓ ☒ <http://www.ajaxbook.com/ajax>

**Question 20****2 / 2 points**

**[2 points]** Consider the following code from one of the Ajax example shown in class:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN">
<html><head><title>My Third Ajax Script</title>
<script src="script03.js" type="text/javascript" language="Javascript"></script></head>
<body><div id="pictureBar"> </div></body></html>
```

**And this JavaScript:**

```
window.onload = initAll;
var xhr = false;
function initAll() { same as previously except it calls getPix }
function getPix() { xhr.open("GET", "flickrfeed.xml", true);
xhr.onreadystatechange = xxxxxx1; xhr.send(null);setTimeout("getPix()",5 * 1000); }
function showPictures() {
    var tempDiv = document.createElement("div");
    var tempDiv2 = document.createElement("div");
    if (xhr.readyState == 4) {
        if (xhr.status == 200) {
            tempDiv.xxxxxx2 = xhr.responseText;
            var allLinks = tempDiv.getElementsByTagName("a");
            for (var i=1; i<allLinks.length; i+=2) {
                tempDiv2.appendChild(allLinks[i].cloneNode(true)); }
            allLinks = tempDiv2.getElementsByTagName("a");
            var randomImg = Math.floor(Math.random() * allLinks.length);
```

```
document.getElementById("pictureBar").innerHTML = allLinks[randomImg].innerHTML;  
    } else { alert("There was a problem with the request " + xhr.status); } } }
```

What should be the values of the two items listed as XXXXX1 and XXXXX2?

✓ ☒ showPictures and innerHTML

☐ callback and loadHTML

### Question 21

1.5 / 2 points

[2 points] What are some of the characteristics of Ajax applications? Select all that apply.

➡ ✓ ☒ May use JavaScript to create IFRAMES

➡ ✓ ☒ Interface is manipulated by client-side JavaScript

✗ ☒ Server can manipulate UI using templates

✓ ☐ User interaction is via form submission

### Question 22

2 / 2 points

[2 points] Which JavaScript method is used primarily with JSON?

☐ run()

☐ exec()

✓ ☒ eval()

## JQuery Questions

### Question 23

**2 / 2 points**

**[2 points]** Consider the following CSS, jQuery and HTML. Will "Text 2" be changed by the jQuery code, underlined and with green dotted border?

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>attributeContainsPrefix demo</title>
  <style>
    a {
      display: inline-block;
    }
  </style>
  <script src="https://code.jquery.com/jquery-3.5.0.js"></script>
</head>
<body>

<a href="example.html" hreflang="en">Text 1</a>
<a href="example.html" hreflang="en-UK">Text 2</a>
<a href="example.html" hreflang="english">Text 3</a>

<script>
$( "a[hreflang]='en']" ).css( "border", "3px dotted green" );
</script>
</body>
</html>
```

✓ ☒ True

☐ False

## Question 24

2 / 2 points

[2 points] Which of the following selectors are part of the Basic Filter selectors category? Select all that apply.

✓ ☐ :multiple selector

✓ ☒ :header selector

✓ ☒ :first

## Question 25

2 / 2 points

[2 points] Which of the following objects are abstracted by jQuery? Select all that apply.

✓ ☒ XMLHttpRequest

✓ ☒ DOM

✓ ☒ JSON

## Question 26

2 / 2 points

[2 points] Consider the following example of use of the ":last-child" Selector:

```
$("#input[value='Hot Fuzz'] ").text( "Hot Fuzz" ) ;
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>last-child demo</title>
  <style>
    span.solast {
      text-decoration: line-through;
    }
  </style>
  <script src="https://code.jquery.com/jquery-3.5.0.js"></script>
</head>
<body>
```



```
<div>
  <span>John,</span>
  <span>Karl,</span>
  <span>Brandon,</span>
  <span>Sam</span>
</div>
<div>
  <span>Glen,</span>
  <span>Tane,</span>
  <span>Ralph,</span>
  <span>David</span>
</div>
<script>
$( "div span:last-child" )
.css({ color:"red", fontSize:"80%" })
.hover(function() {
  $( this ).addClass( "solast" );
}, function() {
  $( this ).removeClass( "solast" );
});
</script>
</body>
</html>
```

**Which names will be colored red?**

 ☒ Sam and David

 ☐ John and Glen

## Question 27

2 / 2 points

[2 points] What is the JavaScript object added by jQuery? Select all that apply.

 ☒ \$

 ☒ jQuery

## Question 28

2 / 2 points

[2 points] Which of the following selectors are part of the Basic selectors category? Select all that apply.

- ✓ ☒ Element
- ✓ ☐ Form
- ✓ ☒ Multiple

**Question 29****2 / 2 points**

**[2 points]** What is the jQuery code that corresponds to the following DOM code?

```
var kids = n.childNodes;
```

- ☐ kids = \$("body").childNodes();
- ✓ ☒ kids = \$("body").children();

**Responsive Website Design (RWD) Questions****Question 30****1 / 2 points**

**[2 points]** Consider the following media queries:

```
<link rel="stylesheet" media="only screen and (min-width:320px) and (max-width: 760px)"  
href="css1.css">
```

```
<link rel="stylesheet" media="only screen and (min-width:761px) and (max-width: 1100px)"  
href="css2.css">
```

**What different device sizes they fail to support? Select all that apply.**

- ➡ ✗ ☐ Devices with large screens

➡ ✓ ☒ **Devices with small screens**

### Question 31

2 / 2 points

[4 points] Select which concepts are the basis of Responsive Website Design. Select all that apply.

- ✓ ☐ content reduction
- ✓ ☒ flexible images
- ✓ ☒ fluid grids
- ✓ ☒ CSS3 media queries

### Question 32

2 / 2 points

[2 points] Select valid reasons why hosting a .mobi website is not recommended. Select all that apply.

- ✓ ☒ Requires duplication of content
- ✓ ☐ It hinders search engines

### Question 33

0.5 / 2 points

[2 points] What are properties of the Responsive Web Design (RWD) approach? Select all that apply.

- ✗ ☒ Uses CSS3 media queries, adaptive grids and flexible images
- ➡ ✓ ☒ Adapts to viewing environment
- ➡ ✗ ☐ No panning if possible, unless required by the application
- ✗ ☒ Easy reading with a minimum of scrolling

### Question 34

2 / 2 points

**[2 points] Consider the following code:**

```
h1 { margin-left: 14.575%; width: 70.85%; }
```

**Is this an example of what kind of dimensions?**

- ☐ Pixel-based
- ☐ Rule-based
- ✓ ☒ Relative-based

## Frameworks Questions

### Question 35

2 / 2 points

**[2 points] Which of the following are TRUE of TypeScript? Select all that apply.**

- ✓ ☒ Includes support for classes and modules
- ✓ ☐ Supports MVC
- ✓ ☒ Supports Optionals

### Question 36




1 / 2 points

**[2 points] Select which of the following is true of React. Select all that apply.**

- ➡ ✓ ☒ Does not implement MVC
- ✗ ☒ Is a framework like Angular




**Question 37****0.667 / 2 points**

[2 points] Select which of the following are TRUE of Angular (version 2 though 9). Select all that apply.

-  ☒ Uses services to increase usability and flexibility
-  ☒ Architecture based on services
-  ☒ Can be used to build Single Page Applications, by rendering plain HTML at the server side



**Question 38****1.5 / 2 points**

[2 points] Which of the following are TRUE of Node.js? Select all that apply.

- ☒ Includes built-in CORS support
-  ☒ Core modules include networking and a fetch() compatible API
-  ☒ Includes both synchronous and asynchronous file I/O support
-  ☒ Maintains several connections per server to make HTTP requests

**Question 39****1 / 2 points**

[2 points] Select which of the following are TRUE of TypeScript. Select all that apply.

-  ☒ A Semantic superset of JavaScript
-  ☒ Can seamlessly consume JavaScript

**Serverless Questions****Question 40****2 / 2 points**

**[2 points] Select which of the following is true of AWS Lambda? Select all that apply.**

- ✓ ☒ Adapts to rates of incoming requests
- ✓ ☒ Functions are unit of deployment
- ✓ ☐ Can be triggered by HTTP only

### Question 41

2 / 2 points

**[2 points] Select which of the following are TRUE of AWS Lambda? Select all that apply.**

- ✓ ☐ Complex resource model
- ✓ ☒ Easy to build scalable back-end services
- ✓ ☐ Not suitable for real-time data processing

### Question 42

2 / 2 points

**[2 points] Which of the following are properties of a container like Docker? Select all that apply.**

- ✓ ☐ Not portable
- ✓ ☒ Container images can be shared
- ✓ ☒ Containers on same host share single Linux kernel

### Question 43

2 / 2 points

**[2 points] Which of the following are TRUE of AWS Lambda? Select all that apply.**

- ✓ ☒ Functions can be triggered by events
- ✓ ☐ Cost of idle time is small

**Functions and classes are unit of deployment**



## 1st Half Course Questions

### Question 44

2 / 2 points

[2 Points] Which of the following are valid values of the Accept-Encoding header? Select all that apply.

✓ ☒ compress

✓ ☒ br

### Question 45

2 / 2 points

[ 2 Points] Select all true properties of JSON Objects. Select all that apply.

✓ ☐ Keys are strings or numeric

✓ ☒ Values are JSON values

✓ ☒ Objects are unordered containers of key/value pairs

✓ ☒ Can be used to represent: struct, record, hashtable, object


### Question 46

1.333 / 2 points

[2 Points] Below are lines extracted from the CSS style sheet of google.com.

```
.gb_N .gb_M {  
    background-image: none !important;  
    position: relative  
}
```

## Which of the following examples will trigger the CSS?

- 
☒
☒

```

<div class="gb_N">
  <div class="gb_M">
    . . .
  <div>
<div>

```
- ☒
☐

```

<div id="gb_N">
  <div id="gb_M">
    . . .
  <div>
<div>

```
- ☒
☒

```

<body class="gb_N">
  . . .
<div>

```

### Question 47

2 / 2 points

[2 Points] Select characters that to appear in HTML need to be represented with numeric or entity references. Select all that apply.

- ☒
☒
 & (ampersand)
- ☒
☒
 " (double quote)
- ☒
☒
 ' (single quote)

### Question 48

2 / 2 points

[2 Points] Consider the following program:

```
alert( "123".match( /\d/g ))
```



What is displayed by the alert?

☐ 1

✓ ☒ 1,2,3

### Question 49

2 / 2 points

[2 Points] Consider the following Python code:

```
>>> a = set('abracadabra')
>>> b = set('alacazam')
>>> a & b
```

What gets printed?

☐ {'a', 'b', 'c', 'd', 'l', 'r', 'm', 'z'}

☐ {'a', 'b'}

✓ ☒ {'c', 'a'}

### Question 50

2 / 2 points

[2 Points] Consider the following example from w3schools.com.

```
<!DOCTYPE html>
<html>
<body>
<p>Click the button.</p>
<button onclick="myFunction()">Try it</button>
```

```
<script>
function myFunction() {
var btn = document.createElement("BUTTON");
btn.innerHTML = "CLICK ME";
document.body.appendChild(btn);
}
</script>
</body>
</html>
```

What happens when one clicks the "Try it" button?

- ☐ Creates a BUTTON element with text "CLICK ME" above the text "Click the button".
- ✓ ☒ Creates a BUTTON element with text "CLICK ME" next to the "Try It" button
- ☐ Creates a BUTTON element with text "CLICK ME" above the "Try It" button
- ☐ Creates a BUTTON element with text "CLICK ME" below (i.e., under) the "Try It" button

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**Attempt Score:**85.7 / 100 - 85.7 %

**Overall Grade (highest attempt):**85.7 / 100 - 85.7 %

Done

