# Randomly Selected Questions - Set 2

**Question 1 (ID: 7.4.3):** Multiple Choice: Which of the following jQuery methods will fade out an HTML element over a period specified by "normal"?  
- (A) .fadeToggle()  
- (B) .fadeOut("normal")  
- (C) .fadeIn("normal")  
- (D) .slideUp("normal")

**Question 2 (ID: 8.4.10):** Short Answer: Describe the steps involved when a web browser sends a GET request to the Music API using Fetch to load all songs.

**Question 3 (ID: 5.4.2):** Fill in the Blank: To use a third-party web API, a developer usually registers to obtain an \_\_\_\_\_\_\_\_\_.  
- Answer: API key

**Question 4 (ID: 5.4.10):** Code Snippet: What is the correct way to open a connection using XMLHttpRequest in JavaScript for a GET request to a weather API?  
```javascript  
let xhr = new XMLHttpRequest();  
xhr.open("GET", url);  
```  
  
- Answer: `xhr.open("GET", url);`

**Question 5 (ID: 7.6.1):** Multiple Choice: Which jQuery method is used for asynchronously loading a short snippet of HTML into a webpage?  
- (A) $.get()  
- (B) $(element).load()  
- (C) $.ajax()  
- (D) $.post()

**Question 6 (ID: 7.5.3):** Multiple Choice: What jQuery method can be used to prepend a new element to an ordered list (`<ol>`)?  
- (A) appendTo()  
- (B) before()  
- (C) prependTo()  
- (D) after()

**Question 7 (ID: 5.3.6):** Multiple Answers: Which of the following are valid MIME types that might be set with `xhr.setRequestHeader("Content-Type", ...)` when sending Ajax requests? Select all that apply.  
- (A) application/json  
- (B) text/html  
- (C) application/x-www-form-urlencoded  
- (D) image/jpeg

**Question 8 (ID: 7.5.4):** Multiple Answers: Which of the following jQuery methods are used for inserting content into the DOM? (Select all that apply)  
- (A) prepend()  
- (B) detach()  
- (C) wrap()  
- (D) append()

**Question 9 (ID: 8.5.4):** Multiple Choice: Which of the following jQuery methods can be used to retrieve song data from the Music API?  
- (A) $.ajax()  
- (B) $.get()  
- (C) $.post()  
- (D) $.put()

**Question 10 (ID: 7.1.2):** Short Answer: What is the key difference between a JavaScript library and a framework?

**Question 11 (ID: 7.4.5):** Short Answer: Explain how jQuery handles CSS property names that include a dash within its .css() method.

**Question 12 (ID: 6.1.10):** Short Answer: What does SPA stand for, and give an example of an SPA.

**Question 13 (ID: 5.1.1):** Multiple Choice: Which protocol is responsible for the foundational data transfer in HTTP?  
- (A) UDP  
- (B) TCP/IP  
- (C) FTP  
- (D) SMTP

**Question 14 (ID: 8.4.7):** Multiple Choice: To add a new song using Fetch, what content type header must be included in the request?  
- (A) "Content-Type": "text/html"  
- (B) "Content-Type": "application/javascript"  
- (C) "Content-Type": "application/json"  
- (D) "Content-Type": "text/plain"

**Question 15 (ID: 9.2.7):** Short Answer: How does a server validate the integrity of a JWT sent by a client?

**Question 16 (ID: 5.4.3):** Multiple Choice: Which of the following is a common data format returned by RESTful web APIs?  
- (A) PDF  
- (B) JSON  
- (C) HTML  
- (D) CSV

**Question 17 (ID: 9.1.7):** Fill in the Blank: To remove all keys and associated values from storage, use the \_\_\_\_\_\_\_\_\_\_\_ method.

**Question 18 (ID: 7.4.4):** Multiple Choice: What property value is assigned to 'x' after executing the following jQuery code snippet:   
  
```javascript  
let x = $("hl").css("border-style");  
```  
  
- (A) "solid"  
- (B) ""  
- (C) "dotted"  
- (D) "none"

**Question 19 (ID: 7.1.7):** Short Answer: Write the jQuery code to ensure all odd-indexed table rows are hidden.

**Question 20 (ID: 8.7.7):** Short Answer: What are the two values that the POST endpoint '/lab/register' expects in its request body?  
- Answer: zip and airQuality

**Question 21 (ID: 7.5.7):** Multiple Choice: Suppose you have an `<h2>` element and you want to insert a `<p>` element immediately after it. What jQuery method would you use?  
- (A) prependTo()  
- (B) append()  
- (C) insertAfter()  
- (D) before()

**Question 22 (ID: 8.2.5):** Multiple Choice: According to the following schema definition, which data types are supported for the 'gpa' field?  
  
```javascript  
const studentSchema = new mongoose.Schema({  
 gpa: { type: Number, min: 0, max: 4 }  
});  
```  
  
- (A) String or Date  
- (B) Mixed or ObjectId  
- (C) Number only  
- (D) Array or Boolean

**Question 23 (ID: 8.7.1):** Multiple Choice: What method is used to truncate a number to use two decimal points in JavaScript?  
- (A) .toPrecision()  
- (B) .toDecimalPlace()  
- (C) .toFixed()  
- (D) .truncate()

**Question 24 (ID: 5.5.1):** Multiple Choice: What is an exception in a program execution?   
- (A) A syntax error that stops the code from being compiled   
- (B) A special case that improves program performance   
- (C) An error that disrupts the normal flow of program execution   
- (D) A comment left by the developer in the code

**Question 25 (ID: 7.6.2):** Multiple Answer: Which of the following data types can be specified in a jQuery request such as $.get() or $.post()?  
- (A) "json"  
- (B) "xml"  
- (C) "html"  
- (D) "image"

**Question 26 (ID: 5.4.1):** Multiple Choice: What is a third-party web API?  
- (A) An API created by the same person as the web application  
- (B) An API providing data from the user of the application  
- (C) An API provided by an entity separate from the web application and user   
- (D) An API that integrates with local databases only

**Question 27 (ID: 8.2.7):** Multiple Choice: Which of the following operators can be used with Model.find() to retrieve students with a GPA greater than or equal to a specific value?  
  
- (A) $eq  
- (B) $in  
- (C) $gt  
- (D) $gte

**Question 28 (ID: 8.4.4):** Fill in the Blank: In the Music API, the field "popularity" is a number limited to the range of \_\_\_ to \_\_\_.

**Question 29 (ID: 8.3.1):** Multiple Choice: What is the primary purpose of RESTful web APIs in modern web applications?  
- (A) To create user interfaces  
- (B) To manipulate and transport data between clients and servers  
- (C) To host video content  
- (D) To design mobile apps

**Question 30 (ID: 7.7.10):** Code Snippet: In the following jQuery code snippet, what values should replace "???" for a JSONP request to OpenWeatherMap to fetch weather data for ZIP code 10001?  
```javascript  
$.ajax({  
 url: "http://api.openweathermap.org/data/2.5/weather",  
 dataType: "??",  
 jsonp: "??",  
 data: {  
 zip: "10001",  
 units: "imperial",  
 appid: "APIKEY"  
 }  
}).done(function(data) {  
 console.log(data.main.temp);  
});  
```  
- "jsonp", "callback"

**Question 31 (ID: 8.1.7):** Multiple Choice: When using the `insertOne()` method in MongoDB Shell, what does the method return if successful?  
- (A) Acknowledged response  
- (B) Inserted document's count  
- (C) Database name  
- (D) Error message

**Question 32 (ID: 6.4.2):** Multiple Choice: In the Express route `app.get("/users/:username", function(req, res) {...})`, how can you access the username parameter?  
- (A) req.params.username  
- (B) req.query.username  
- (C) req.body.username  
- (D) req.header.username

**Question 33 (ID: 5.3.1):** Multiple Choice: What is the primary benefit of using Ajax for web applications?  
- (A) Synchronous updates to webpages  
- (B) Asynchronous communication with a server, allowing webpage updates without reloading  
- (C) Using XML as the only format for server communication  
- (D) Enhanced security for cross-origin requests

**Question 34 (ID: 7.1.4):** Fill in the Blank: The <script> element's integrity and crossorigin attributes in a CDN jQuery link are used for \_\_\_\_ checking.

**Question 35 (ID: 7.7.9):** Multiple Answers: Which of the following methods can be used to make cross-origin HTTP requests? (Select all that apply.)  
- [ ] Cross-Origin Resource Sharing (CORS)  
- [ ] JSON with Padding (JSONP)  
- [ ] LocalStorage  
- [ ] Service Workers

**Question 36 (ID: 7.4.6):** Multiple Choice: Which animation method is specifically used to change an element's opacity in jQuery?  
- (A) .show()  
- (B) .toggle()  
- (C) .fadeIn()  
- (D) .slideDown()

**Question 37 (ID: 5.3.4):** Multiple Choice: Which HTTP status code indicates that the requested resource was not found?  
- (A) 200  
- (B) 301  
- (C) 403  
- (D) 404

**Question 38 (ID: 6.2.10):** Fill in the blank with the correct term: Semantic versioning follows the pattern \_\_\_\_\_\_\_\_\_\_ where "major", "minor", and "patch" represent different levels of updates.  
- Answer: major.minor.patch

**Question 39 (ID: 5.2.7):** Multiple Choice: What will the following code display in the console?  
```javascript  
let jsonStr = '{"name":"Alice","age":30}';  
let jsonObj = JSON.parse(jsonStr);  
console.log("Name: " + jsonObj.name);  
```  
- (A) Name: {"name":"Alice","age":30}  
- (B) Name: Alice  
- (C) Undefined  
- (D) Error

**Question 40 (ID: 9.1.5):** Multiple Choice: What happens to sessionStorage data when a browser tab is closed?  
- (A) It is saved and available upon reopening.  
- (B) It is permanently deleted.  
- (C) It is cleared.  
- (D) It is saved for one hour.

**Question 41 (ID: 9.2.6):** Multiple Choice: In the given Express server code, what status code is returned for an unauthorized access attempt when the user credentials are incorrect?   
- (A) 200   
- (B) 404   
- (C) 401   
- (D) 500

**Question 42 (ID: 8.5.9):** Multiple Choice: In a web application, which of the following is typically used to make AJAX requests easier than using the XMLHttpRequest object directly?  
- (A) Fetch API  
- (B) Axios  
- (C) jQuery's $.get() and $.ajax()  
- (D) Bootstrap

**Question 43 (ID: 5.3.7):** Multiple Choice: In event-driven programming with the XMLHttpRequest object, what is the role of the `addEventListener` method?  
- (A) To pause pending requests  
- (B) To initiate server requests  
- (C) To define handlers for specific events  
- (D) To handle cross-origin restrictions

**Question 44 (ID: 5.2.2):** Fill in the Blank: JSON is an efficient, structured format for data based on a subset of the \_\_\_\_\_\_\_\_\_\_\_ language.

**Question 45 (ID: 5.2.3):** Multiple Choice: Which method in JavaScript is used to convert a JSON string into a JavaScript object?  
- (A) JSON.convert()  
- (B) JSON.stringify()  
- (C) JSON.parse()  
- (D) JSON.read()

**Question 46 (ID: 5.1.5):** Multiple Choice: Which part of an HTTP request or response specifies additional information with keywords?  
- (A) Start line  
- (B) Header fields  
- (C) Message body  
- (D) DNS lookup

**Question 47 (ID: 5.1.7):** Fill in the Blank: An HTTP response with the status code 404 indicates that the requested resource \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Question 48 (ID: 7.1.9):** Multiple Choice: What is the purpose of the $() function in jQuery?  
- (A) It is used to save files on the server.  
- (B) It is used to write server-side logic.  
- (C) It is used for selecting DOM elements.  
- (D) It is used for encrypting JavaScript code.

**Question 49 (ID: 9.1.8):** Multiple Choice: In private browsing, what can happen to web storage data?  
- (A) Data is archived for future sessions.  
- (B) Data is inaccessible but saved.  
- (C) Data may be disabled or cleared after the session.  
- (D) Data is accessible only to the user.

**Question 50 (ID: 6.2.2):** Multiple Choice: Which of the following companies does NOT use Node.js?  
- (A) Netflix  
- (B) Walmart  
- (C) Google  
- (D) eBay

# Answers

**Answer to Question 1:** (B) .fadeOut("normal")

**Answer to Question 2:** The web browser sends a GET request to the Express server using the Fetch API for the URI /api/songs. The Express server retrieves all the songs from the MongoDB database and returns them in JSON format. The web browser processes the JSON data and displays the song list on the page.

**Answer to Question 3:** API key

**Answer to Question 4:** `xhr.open("GET", url);`

**Answer to Question 5:** (B) $(element).load()

**Answer to Question 6:** (C) prependTo()

**Answer to Question 7:** (A) application/json, (C) application/x-www-form-urlencoded, (D) image/jpeg

**Answer to Question 8:** (A) prepend(), (D) append()

**Answer to Question 9:** (B) $.get()

**Answer to Question 10:** A library is a collection of functions for specific tasks, whereas a framework dictates the flow of the program.

**Answer to Question 11:** jQuery converts camel-cased JavaScript property names to strings equivalent to CSS property names, so properties with dashes need to be quoted.

**Answer to Question 12:** SPA stands for Single Page Application; an example is Gmail.

**Answer to Question 13:** (B) TCP/IP

**Answer to Question 14:** (C) "Content-Type": "application/json"

**Answer to Question 15:** The server generates a new signature based on the JWT's Base64 encoded header and payload and checks it against the JWT's signature using the server's secret key.

**Answer to Question 16:** (B) JSON

**Answer to Question 17:** clear()

**Answer to Question 18:** (A) "solid"

**Answer to Question 19:** $("tr:odd").hide();

**Answer to Question 20:** zip and airQuality

**Answer to Question 21:** (C) insertAfter()

**Answer to Question 22:** (C) Number only

**Answer to Question 23:** (C) .toFixed()

**Answer to Question 24:** (C) An error that disrupts the normal flow of program execution

**Answer to Question 25:** (A) "json", (B) "xml", (C) "html"

**Answer to Question 26:** (C) An API provided by an entity separate from the web application and user

**Answer to Question 27:** (D) $gte

**Answer to Question 28:** 1 to 10

**Answer to Question 29:** (B) To manipulate and transport data between clients and servers

**Answer to Question 30:** "jsonp", "callback"

**Answer to Question 31:** (A) Acknowledged response

**Answer to Question 32:** (A) req.params.username

**Answer to Question 33:** (B) Asynchronous communication with a server, allowing webpage updates without reloading

**Answer to Question 34:** Subresource Integrity (SRI)

**Answer to Question 35:** [ ] Cross-Origin Resource Sharing (CORS), [ ] JSON with Padding (JSONP)

**Answer to Question 36:** (C) .fadeIn()

**Answer to Question 37:** (D) 404

**Answer to Question 38:** major.minor.patch

**Answer to Question 39:** (B) Name: Alice

**Answer to Question 40:** (C) It is cleared.

**Answer to Question 41:** (C) 401

**Answer to Question 42:** (C) jQuery's $.get() and $.ajax()

**Answer to Question 43:** (C) To define handlers for specific events

**Answer to Question 44:** JavaScript

**Answer to Question 45:** (C) JSON.parse()

**Answer to Question 46:** (B) Header fields

**Answer to Question 47:** could not be located

**Answer to Question 48:** (C) It is used for selecting DOM elements.

**Answer to Question 49:** (C) Data may be disabled or cleared after the session.

**Answer to Question 50:** (C) Google