# Randomly Selected Questions - Set 4

**Question 1 (ID: 8.6.2):** Fill in the blank: A developer usually registers with the third party to obtain a(n) \_\_\_\_\_\_\_ to use a third-party web API.  
- (A) API token  
- (B) API key  
- (C) API certificate

**Question 2 (ID: 6.4.9):** Multiple Answer: Which of the following statements are true regarding the `res.send()` method? (Select all that apply)  
- (A) It can send HTML content as a response.  
- (B) It automatically sets the Content-Type to text/plain.  
- (C) It can send JSON if the response is a JavaScript object or array.  
- (D) It finishes off the response.

**Question 3 (ID: 6.1.3):** Fill in the Blank: A \_\_\_\_\_\_\_\_\_\_ developer is someone who has expertise in both client-side and server-side technologies and knows how they work together.

**Question 4 (ID: 6.2.6):** Multiple Choice: What is the purpose of the `response.end()` method in a Node.js web server?  
- (A) To start the server  
- (B) To handle new HTTP requests  
- (C) To send the HTTP response back to the client  
- (D) To print server logs

**Question 5 (ID: 5.5.6):** Multiple Answer: In the function `findAverage()`, which conditions should throw exceptions?   
- [ ] Non-integer values in the scores array   
- [ ] An empty scores array   
- [ ] An array with more than 100 scores   
- [ ] Negative scores in the array

**Question 6 (ID: 9.1.9):** Short Answer: Why is it advised not to store sensitive information such as passwords in web storage?

**Question 7 (ID: 6.4.8):** Multiple Choice: When an Express route uses parameter middleware, what function argument receives the parameter's value?  
- (A) req  
- (B) res  
- (C) next  
- (D) The fourth argument

**Question 8 (ID: 5.1.9):** Multiple Choice: What HTTP response status code indicates that the resource should be requested at a different URL permanently?  
- (A) 302  
- (B) 307  
- (C) 301  
- (D) 200

**Question 9 (ID: 6.4.5):** Short Answer: Given the URL `http://localhost:3000/weather/80015`, what JSON response does the server provide based on the following Express route middleware code?  
  
```javascript  
app.param("zip", function(req, res, next, zip) {  
 if (zip === "80015") {  
 req.forecast = { high: 95, low: 72 };  
 }  
 next();  
});  
  
app.get("/weather/:zip", function(req, res) {  
 if (req.forecast) {  
 res.json(req.forecast);  
 } else {  
 res.status(404).json({ error: "Unknown ZIP code" });  
 }  
});  
```

**Question 10 (ID: 7.7.8):** Short Answer: What technique is used to bypass the same-origin policy when a third-party API does not support CORS?  
- JSON with Padding (JSONP).

**Question 11 (ID: 8.7.2):** Fill in the Blank: The server endpoint '/lab/status' uses a \_\_\_ request to fetch the average air quality for a specific zip code.  
- Answer: GET

**Question 12 (ID: 5.2.1):** Multiple Choice: Which of the following is not a basic JSON data type?  
- (A) String  
- (B) Object  
- (C) Function  
- (D) Array

**Question 13 (ID: 9.1.10):** Fill in the Blank: To retrieve stored data from localStorage, use the \_\_\_\_\_\_\_\_\_\_\_ method to get the value associated with a key.

**Question 14 (ID: 9.2.3):** Short Answer: What are the three components of a JSON Web Token (JWT)?

**Question 15 (ID: 7.1.6):** Multiple Answers: Which of the following are common tasks performed by jQuery? (Select all that apply)  
- (A) DOM manipulation  
- (B) Email processing  
- (C) Animation  
- (D) File system operations

**Question 16 (ID: 8.7.3):** Multiple Choice: Which header allows cross-origin requests to be made from any website?  
- (A) 'Content-Type'  
- (B) 'Access-Control-Allow-Origin'  
- (C) 'Authorization'  
- (D) 'X-Requested-With'

**Question 17 (ID: 8.1.10):** Fill in the Blank: The \_\_\_\_\_\_\_\_\_\_ operator in MongoDB is used to set a field's value to the current date/time.  
- Correct answer: $currentDate

**Question 18 (ID: 6.3.1):** Multiple Choice: What is the primary purpose of using Express in Node.js applications?  
- (A) To compile JavaScript code  
- (B) To create command-line interfaces  
- (C) To create web servers with less code  
- (D) To connect to SQL databases

**Question 19 (ID: 7.5.8):** Fill in the blank: The jQuery method \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is similar to remove(), but keeps copies of the removed elements for further use.  
- detach()

**Question 20 (ID: 8.6.3):** Short Answer: List one use case for third-party web APIs mentioned in the content.  
- Answer: Integrate with social media, obtain maps and weather data, or access collections of data.

**Question 21 (ID: 7.6.9):** Code Analysis: Identify the missing function call in the example code below which is designed to execute once the GET request is successfully completed:  
  
```javascript  
$("#search").on("click", function() {  
 let requestData = { title: $("#title").val() };  
 $.get("lookup.php", requestData, responseHandler, "json");  
});  
  
function responseHandler(data) {  
 $("#movieinfo").html("<cite>" + data.title + "</cite>: Rated " + data.rating + ", released in " + data.year);  
}  
```

**Question 22 (ID: 8.4.5):** Multiple Choice: What happens if a DELETE request is successfully processed by the Music API?  
- (A) The server returns a 204 No Content status code  
- (B) The server returns a 200 OK status code  
- (C) The server does nothing  
- (D) The server returns a 404 Not Found status code

**Question 23 (ID: 6.1.7):** Multiple Choice: What is the primary disadvantage of free web hosting services?  
- (A) Unlimited bandwidth  
- (B) Full control over server  
- (C) Limited reliability  
- (D) High security measures

**Question 24 (ID: 6.4.7):** Multiple Choice: What is the Content-Type used when form data is URL-encoded in an Express application?  
- (A) text/html  
- (B) application/json  
- (C) application/x-www-form-urlencoded  
- (D) multipart/form-data

**Question 25 (ID: 7.3.9):** Multiple Choice: Which jQuery event might you use to ensure the DOM is fully loaded before performing DOM manipulation?  
- (A) focus  
- (B) ready  
- (C) blur  
- (D) change

**Question 26 (ID: 7.6.8):** Multiple Choice: After clicking a search button, if the response is delayed, what UI update is good practice to inform the user that the system is processing?  
- (A) Hide the button  
- (B) Display a "waiting" message or progress bar  
- (C) Show an error message  
- (D) Refresh the page

**Question 27 (ID: 8.1.9):** Multiple Choice: What is the function of the `updateOne()` operation in MongoDB?  
- (A) It updates all documents in a collection to the same value.  
- (B) It updates a single document in a collection based on a query condition.  
- (C) It replaces all documents in a collection with a new document.  
- (D) It deletes one document based on a query.

**Question 28 (ID: 8.7.8):** Multiple Choice: Which HTTP methods are allowed in the provided server implementation based on the CORS settings?  
- (A) GET, POST, OPTIONS  
- (B) GET, POST, PUT, DELETE  
- (C) GET, POST, OPTIONS, PUT, PATCH, DELETE  
- (D) GET and POST only

**Question 29 (ID: 6.4.4):** Multiple Answer: Which of the following are correct uses of route parameters in Express? (Select all that apply)  
- (A) `/product/:id` can be accessed through `req.params.id`.  
- (B) `/category/:name` can be accessed through `req.query.name`.  
- (C) `/order/:orderId/details` can be accessed through `req.params.orderId`.  
- (D) `/user/:name/profile` can be accessed through `req.body.name`.

**Question 30 (ID: 8.5.5):** Fill in the Blank: In the context of Music API operations, a PUT request updates an existing \_\_\_\_ with the JSON-encoded song data.

**Question 31 (ID: 7.4.10):** Multiple Choice: In the jQuery animate() method, which of the following CSS properties can be animated directly?  
- (A) font color  
- (B) background-color  
- (C) width  
- (D) content

**Question 32 (ID: 8.3.6):** Multiple Choice: In the provided Node.js code, what does the `res.json(song);` line do?  
- (A) Saves the song to the database  
- (B) Sends a plain text response  
- (C) Sends a JSON-encoded song data in the response  
- (D) Updates the song data

**Question 33 (ID: 5.1.4):** Multiple Choice: What role does DNS play in the domain name resolution process?  
- (A) Converts IP addresses to hostnames  
- (B) Converts hostnames to IP addresses  
- (C) Ensures secure transmission of data  
- (D) Encrypts web traffic

**Question 34 (ID: 5.1.10):** Short Answer: What is the purpose of an ETag in HTTP communications?

**Question 35 (ID: 6.3.9):** Short Answer: How is the middleware function 'logRequest' enabled in an Express application according to the document?

**Question 36 (ID: 8.1.8):** Multiple Choice: What method would you use in MongoDB to find all documents in a collection that match a specific condition?  
- (A) db.collection.findOne()  
- (B) db.collection.fetch()  
- (C) db.collection.find()  
- (D) db.collection.get()

**Question 37 (ID: 8.4.2):** Multiple Choice: Which HTTP request verb should you use with the Music API to update an existing song?  
- (A) GET  
- (B) POST  
- (C) PUT  
- (D) DELETE

**Question 38 (ID: 8.1.1):** Multiple Choice: What is the primary data storage unit in a MongoDB database?  
- (A) Table  
- (B) Document  
- (C) Field  
- (D) Row

**Question 39 (ID: 6.4.6):** Fill in the blank: In a route definition like `app.get("/city/:name", function(req, res) {...})`, the parameterized part of the URL is defined using a \_\_\_\_\_\_\_\_\_.

**Question 40 (ID: 8.4.8):** Fill in the Blank: The JavaScript function call `document.querySelector("#songid").value` retrieves the value of the \_\_\_ field from the web form.

**Question 41 (ID: 7.5.5):** Fill in the blank: The jQuery method \_\_\_\_\_\_\_\_\_\_\_\_\_\_ returns the removed nodes to the caller allowing them to be reused.  
- detach()

**Question 42 (ID: 7.4.7):** Multiple Answer: Regarding the animate() method in jQuery, which parameters are optional?  
- (A) properties  
- (B) duration  
- (C) easing  
- (D) complete

**Question 43 (ID: 7.7.3):** Fill in the blank: A RESTful web API is called with a \_\_\_\_\_\_ that specifies API parameters.  
- URL

**Question 44 (ID: 5.3.8):** Code Snippet: In the given JavaScript, identify what the XMLHttpRequest's `open` method is doing.  
  
```javascript  
let xhr = new XMLHttpRequest();  
xhr.open("GET", "starwars.html");  
```

**Question 45 (ID: 8.2.3):** Short Answer: What is the purpose of using schemas in Mongoose?

**Question 46 (ID: 7.7.6):** Multiple Choice: Which HTTP status code indicates an invalid API key when using the OpenWeatherMap API?  
- (A) 200  
- (B) 401  
- (C) 404  
- (D) 500

**Question 47 (ID: 8.1.3):** Fill in the Blank: In MongoDB, a document is composed of \_\_\_\_\_\_/\_\_\_\_\_\_ pairs.  
- Correct answer: field/value

**Question 48 (ID: 7.1.10):** Short Answer: What jQuery method would you use to remove the CSS class "old-style" from all elements with this class?

**Question 49 (ID: 8.6.10):** Multiple Choice: In the context of "Calling the Weather API from the web server," what is the role of the node-fetch module?  
- (A) To create a new local server  
- (B) To encrypt data transmissions  
- (C) To implement the Fetch API for making HTTP requests  
- (D) To convert HTML to JSON format

**Question 50 (ID: 5.5.2):** Fill in the blank: The syntax to throw a user-defined exception in JavaScript is `throw \_\_\_\_\_\_\_\_\_\_\_.`   
- "expression"

# Answers

**Answer to Question 1:** (B) API key

**Answer to Question 2:** (A) It can send HTML content as a response. (D) It finishes off the response.

**Answer to Question 3:** full-stack

**Answer to Question 4:** (C) To send the HTTP response back to the client

**Answer to Question 5:** [ ] Non-integer values in the scores array [ ] An empty scores array [ ] Negative scores in the array

**Answer to Question 6:** Because the values can be easily seen by others, making it insecure.

**Answer to Question 7:** (D) The fourth argument

**Answer to Question 8:** (C) 301

**Answer to Question 9:** {"high": 95, "low": 72}

**Answer to Question 10:** JSON with Padding (JSONP).

**Answer to Question 11:** GET

**Answer to Question 12:** (C) Function

**Answer to Question 13:** getItem()

**Answer to Question 14:** Header, Payload, Signature

**Answer to Question 15:** (A) DOM manipulation, (C) Animation

**Answer to Question 16:** (B) 'Access-Control-Allow-Origin'

**Answer to Question 17:** $currentDate

**Answer to Question 18:** (C) To create web servers with less code

**Answer to Question 19:** detach()

**Answer to Question 20:** Integrate with social media, obtain maps and weather data, or access collections of data.

**Answer to Question 21:** responseHandler

**Answer to Question 22:** (A) The server returns a 204 No Content status code

**Answer to Question 23:** (C) Limited reliability

**Answer to Question 24:** (C) application/x-www-form-urlencoded

**Answer to Question 25:** (B) ready

**Answer to Question 26:** (B) Display a "waiting" message or progress bar

**Answer to Question 27:** (B) It updates a single document in a collection based on a query condition.

**Answer to Question 28:** (C) GET, POST, OPTIONS, PUT, PATCH, DELETE

**Answer to Question 29:** (A) /product/:id can be accessed through req.params.id. (C) /order/:orderId/details can be accessed through req.params.orderId.

**Answer to Question 30:** song

**Answer to Question 31:** (C) width

**Answer to Question 32:** (C) Sends a JSON-encoded song data in the response

**Answer to Question 33:** (B) Converts hostnames to IP addresses

**Answer to Question 34:** An ETag is an identifier for a specific version of a web resource, used to determine if a cached version of the resource is the same as that on the server.

**Answer to Question 35:** By calling app.use(logRequest);

**Answer to Question 36:** (C) db.collection.find()

**Answer to Question 37:** (C) PUT

**Answer to Question 38:** (B) Document

**Answer to Question 39:** colon (:)

**Answer to Question 40:** ID

**Answer to Question 41:** detach()

**Answer to Question 42:** (B) duration, (C) easing, (D) complete

**Answer to Question 43:** URL

**Answer to Question 44:** The `open` method initializes a request, specifying the request type (GET) and URL ("starwars.html") to connect to when it is sent.

**Answer to Question 45:** Schemas in Mongoose define the structure of documents within a MongoDB collection, specifying fields and data types, to ensure data consistency.

**Answer to Question 46:** (B) 401

**Answer to Question 47:** field/value

**Answer to Question 48:** removeClass("old-style")

**Answer to Question 49:** (C) To implement the Fetch API for making HTTP requests

**Answer to Question 50:** "expression"