[ZANG] - [Chuanjie]

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1. **If you want to retrieve the current scrollbar positions for a scrollable element, which jQuery functions would you use?**

use the following jQuery functions:

.scrollTop(): Retrieves the vertical scroll position.

.scrollLeft(): Retrieves the horizontal scroll position.

var scrollTop = $("element").scrollTop();

var scrollLeft = $("element").scrollLeft();

1. **If you want to scroll the top of a particular element into view within its scrollable container, which three coordinates are needed?**

would need the following three coordinates:

1. The **scrollTop** position of the container.
2. The **offset().top** position of the element relative to the document.
3. The **height** of the container and the element to calculate the position.
4. **Write a function call that you would use to scroll a scrollable element to its top.**

use the .scrollTop() method and set it to 0 to scroll to the top.

$("element").scrollTop(0);

1. **Describe two general approaches to scroll a scrollable element to its bottom.**

Use .scrollTop() and set it to the element’s scroll height minus its height.

$("element").scrollTop($("element")[0].scrollHeight);

Use the .animate() method to smoothly scroll to the bottom.

$("element").animate({ scrollTop: $("element")[0].scrollHeight }, 1000);

1. **If an invalid value is specified when setting scrollTop() or scrollLeft(), what value is used by the function?**

If an invalid value is specified, **0** is used by default.

1. **Describe how you enable drag-and-drop functionality in an element. Which methods are legacy methods and what browsers do the legacy methods exist for?**

To enable drag-and-drop functionality:

* Use the HTML5 dragstart, dragover, and drop events. Legacy methods include:
* ondragstart, ondragover, and ondrop were used in earlier versions of Internet Explorer.

**7. List the events in the order that they fire that are used to drag an**

**element.**

· dragstart

· drag

· dragend

**8. List the events in the order that they fire that are used to drop an**

**element.**

· dragstart

· drag

· dragend

1. **When you implement drag-and-drop file uploads, what property do you look for, and using which event, to detect that a drag-and-drop file upload has taken place? For extra credit, what property would you use if you weren't using jQuery?**

* Property: dataTransfer object.
* Event: drop event. If you weren't using jQuery, you could use:

event.dataTransfer.files;

1. **When implementing a thumbnail preview of image files, what format is used to view preview images?**

typically use the **Base64** format to encode the image data and display it in the browser.

<img src="data:image/png;base64,..." />

1. **When creating a drag-and-drop file upload, what events can monitor file upload progress? What object do you attach these events to?**

Events to monitor progress include:

* progress
* loadstart
* loadend These events are attached to the **XMLHttpRequest** object.

1. **Which event properties calculate file upload progress percentages?**

The progress event properties used to calculate progress percentages are:

* loaded: The amount of data uploaded.
* total: The total size of the file.

You can calculate the percentage with:

var percentComplete = (event.loaded / event.total) \* 100;

1. **Describe how you would create custom POST variables in the HTTP request that is generated for a drag-and-drop file upload.**

use **FormData** to append custom POST variables.

var formData = new FormData();

formData.append("file", fileInput.files[0]);

formData.append("customVar", "customValue");

$.ajax({

url: "upload.php",

type: "POST",

data: formData,

processData: false,

contentType: false,

success: function(response) {

console.log("Upload successful");

}

});

1. **How do you know that a file upload was successful?**

the upload was successful if the server responds with a **status code of 200** and possibly a success message in the response body.