

# Drupal, PHP & jQuery Interview Questions & Answers

**Q: What is the difference between `hook_preprocess_page` and `hook_preprocess_html`?**

A: - `hook_preprocess_page`: Used for preprocessing variables related to the page template.

- `hook_preprocess_html`: Used for modifying the HTML template variables before rendering.

**Q: How to disable cache for a particular page?**

A: Use ``max-age: 0`` in ``#cache``, or implement an event subscriber to alter cache metadata.

**Q: Why create an event subscriber when we can cancel cache from the `.info` file?**

A: Event subscribers offer more flexibility for dynamic cache handling compared to static `.info` configuration.

**Q: What is the difference between tag-based cache and context cache?**

A: - **Tag-based Cache**: Invalidates specific cached content when related content updates.

- **Context Cache**: Stores multiple versions of the same cache based on context (e.g., user roles).

**Q: What is an event in Drupal 8?**

A: An event is a way to hook into the request/response lifecycle and perform actions when specific events occur.

**Q: How to define and call custom functions in a Twig file?**

A: Use ``hook_theme`` to define the template and ``hook_preprocess_HOOK`` to pass variables to the Twig file.

**Q: How to use a custom template for a form in Drupal 8?**

A: Implement ``hook_theme()`` to define a custom template and override the form render array.

**Q: Multiple ways to pass variables into JavaScript in Drupal 8?**

A: 1. ``drupalSettings``

2. ``hook_preprocess_page()``

3. ``#attached`` in render arrays

**Q: What is 'use strict'?**

A: It enforces stricter parsing and error handling in JavaScript, preventing undeclared variables.

**Q: What is the context in Drupal?**

A: A context represents external factors like user roles or languages that affect caching and rendering.

**Q: How to get all form fields by passing form ID?**

A: Use ``drupal_get_form($form_id)`` and inspect the render array.

**Q: Use of ``__invoke()`` in PHP?**

A: It allows an object to be called as a function by defining ``__invoke()`` inside a class.

**Q: Difference between ``array_merge`` and ``array_combine``?**

A: - ``array_merge``: Merges two arrays, maintaining numeric keys.

- ``array_combine``: Creates an associative array using one array for keys and another for values.

**Q: Binary search vs `array_filter``: Which is faster?**

A: Binary search is faster for sorted arrays ( $O(\log n)$ ), while ``array_filter`` has  $O(n)$  complexity.

**Q: What is ``Ds\Sequence`` class error in PHP?**

A: It requires the ``ds`` extension. Install it via PECL: ``sudo pecl install ds``.

**Q: Basic jQuery functions?**

A: Selectors, event handling, effects (``hide()``, ``fadeOut()``), AJAX (``$.get()``, ``$.post()``), and DOM manipulation (``append()``, ``remove()``).

**Q: How to remove an element in jQuery?**

A: Use ``remove()`` to delete an element or ``empty()`` to clear its content.

**Q: How to check if an object is empty in jQuery?**

A: Use ``$.isEmptyObject(obj)`` to check if an object has no properties.