

**Question#1:**

a) Why is it important to use `wp_enqueue_script()` and `wp_enqueue_style()` in a WordPress plugin instead of hardcoding scripts/styles directly? Also, write a PHP snippet showing how to enqueue a custom JavaScript file with jQuery as a dependency.

b) Explain the role of `wp_localize_script()` in WordPress plugin development. Write a PHP snippet to pass an AJAX URL and a nonce to your enqueued script using `wp_localize_script()`.

**Question#2:**

Explain how to register a Custom Post Type (CPT) in a WordPress plugin. Provide a code example and briefly describe the purpose of each key parameter used in the `register_post_type()` function.

**Question#3:**

How do Cross-Site Scripting (XSS) attacks affect WordPress plugins, and what are two effective ways developers can prevent them?

**Question#4:**

Explain the role of the `form()` and `update()` methods in a custom WordPress widget created by extending the `WP_Widget` class. Provide a code example to illustrate how these methods handle user inputs and save widget settings.

**Question#5:**

What strategies can help in successfully selling a WordPress plugin in a competitive market, and how do pricing, marketing, and support contribute to user retention?

**Question#6:**

a. Describe the role of the `wp_posts` and `wp_postmeta` tables in WordPress. How do they store and manage post content and metadata?

b. Explain how WordPress uses the `wp_terms`, `wp_term_taxonomy`, and `wp_term_relationships` tables to handle categories and tags for posts.

**Question#7**

What are the common security vulnerabilities found in WordPress plugins, and how can these vulnerabilities be exploited to compromise a website?

**Question#8**

You are developing a WordPress plugin and need to create a shortcode that displays a custom message.

The shortcode should accept two attributes:

1. `message` – the content to be displayed.
2. `bg_color` – to set the background color of the message box. The background color should default to light gray if not provided. The message text should also be customizable, with a default of "Hello, World!" if no message is provided.
  - a. Write a PHP function to create a shortcode `[custom_message]` that displays a custom message passed through the message attribute. The default message should be "Hello, World!".
  - b. Modify the function from Part 1 to accept an additional `bg_color` attribute. This attribute will change the background color of the message box. The default background color should be light gray.

### **Question#9**

Describe how AJAX is implemented in a WordPress plugin to perform live blog search with category filtering. Include the roles of JavaScript, `admin-ajax.php`, and PHP callbacks in your explanation.

### **Question#10**

What is the purpose of action hooks in WordPress plugin development? Give a brief explanation with an example of how they can be used.