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function secure_authentication_login_form() {
    ?>
    <script src="https://www.google.com/recaptcha/api.js"></script>
    <div class="g-recaptcha" data-sitekey="SITE_KEY"></div>
    <?php
}
add_action( 'login_form', 'secure_authentication_login_form' );
add_action( 'login_form_middle', 'secure_authentication_login_form' );

function secure_authentication_login_verify( $user, $username ) {
    $secret_key = 'SECRET_KEY';

    if ( isset( $_POST['g-recaptcha-response'] ) ) {
        $recaptcha_response = $_POST['g-recaptcha-response'];
        $url = 'https://www.google.com/recaptcha/api/siteverify';
        $data = array(
            'secret' => $secret_key,
            'response' => $recaptcha_response,
        );
        $options = array(
            'http' => array(
                'header' => "Content-type: application/x-www-form-urlencoded\r\n",
                'method' => 'POST',
                'content' => http_build_query( $data ),
            ),
        );
        $context = stream_context_create( $options );
        $result = file_get_contents( $url, false, $context );
        $result = json_decode( $result );

        if ( ! $result->success ) {
            // If the reCAPTCHA response is invalid, return an error
            $error = new WP_Error();
            $error->add( 'recaptcha_error', __( '<strong>ERROR</strong>: Invalid reCAPTCHA response.' ) );
        };
        return $error;
    }
} else {
    // If the reCAPTCHA field is not present, return an error
    $error = new WP_Error();
    $error->add( 'recaptcha_error', __( '<strong>ERROR</strong>: reCAPTCHA is required.' ) );
    return $error;
}

return $user;
}
add_filter( 'wp_authenticate_user', 'secure_authentication_login_verify', 10, 2 );

```