

ДОДАТОК А

Програмний код плагіну безпеки

Блокування атак грубою силою:

```

if ( ! class_exists( 'Frity_Limit_Login_Attempts' ) ) {
    class Frity_Limit_Login_Attempts {
        var $limit_frity_login_fails = 3;
        var $duration_frity_lockout = 90;
        var $name_frity_transient = 'attempted_login';

        public function __construct() {
            add_filter( 'authenticate', array( $this, 'frity_check_attempted_login' ), 30, 3 );
            add_action( 'wp_login_failed', array( $this, 'frity_login_problem' ), 10, 1 );
        }

        /**
         * Close access if user fired all attempt
         */
        public function frity_check_attempted_login( $user, $username, $password ) {
            if ( get_transient( $this->name_frity_transient ) ) {
                $custom_frity_data = get_transient( $this->name_frity_transient );
                if ( $custom_frity_data['tried'] >= $this->limit_frity_login_fails ) {
                    $until_frity = get_option( '_transient_timeout_' . $this->name_frity_transient );
                    $protect_frity_bot_time = $this->frity_set_time_function( $until_frity );
                    //Error message if user can't enter
                    return new WP_Error( 'too_many_tried', sprintf( __( '<strong>Помилка</strong>: у вас є обмеження на кількість спроб,
повторіть спробу після %1$s.' ), $protect_frity_bot_time ) );
                }
            }
            return $user;
        }
    }
}

```

Зміна посилань на чутливі сторінки:

```

private function frity_login_new_slug() {
    if (
        ( $slug = get_option( 'rwl_page' ) ) || (
            is_multisite() &&
            is_plugin_active_for_network( $this->frity_name_base() ) &&
            ( $slug = get_site_option( 'rwl_page', 'login' ) )
        ) ||
        ( $slug = 'login' )
    ) {
        return $slug;
    }
}

public function frity_login_url_new( $scheme = null ) {
    if ( get_option( 'permalink_structure' ) ) {
        return $this->user_frity_trailingslashit( home_url( '/', $scheme ) . $this->frity_login_new_slug() );
    } else {
        return home_url( '/', $scheme ) . '?' . $this->frity_login_new_slug();
    }
}

public function __construct() {
    register_activation_hook( $this->frity_name_base(), array( $this, 'activate' ) );
    register_uninstall_hook( $this->frity_name_base(), array( 'Frity_Rename_WP_Login', 'uninstall' ) );

    add_action( 'admin_init', array( $this, 'admin_init' ) );
    add_action( 'admin_notices', array( $this, 'admin_notices' ) );
    add_action( 'network_admin_notices', array( $this, 'admin_notices' ) );

    if ( is_multisite() && ! function_exists( 'is_plugin_active_for_network' ) ) {
        require_once ABSPATH . '/wp-admin/includes/plugin.php';
    }
}

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add_filter( 'plugin_action_links_' . $this->frity_name_base(), array( $this, 'plugin_action_links' ) );

if ( is_multisite() && is_plugin_active_for_network( $this->frity_name_base() ) ) {
    add_filter( 'network_admin_plugin_action_links_' . $this->frity_name_base(), array( $this,
'plugin_action_links' ) );

    add_action( 'wpmu_options', array( $this, 'wpmu_options' ) );
    add_action( 'update_wpmu_options', array( $this, 'update_wpmu_options' ) );
}

add_action( 'plugins_loaded', array( $this, 'frity_check_plugin_load' ), 1 );
add_action( 'wp_loaded', array( $this, 'wp_loaded' ) );

add_filter( 'site_url', array( $this, 'site_url' ), 10, 4 );
add_filter( 'network_site_url', array( $this, 'network_site_url' ), 10, 3 );
add_filter( 'wp_redirect', array( $this, 'wp_redirect' ), 10, 2 );

add_filter( 'site_option_welcome_email', array( $this, 'frity_welcome_email' ) );

remove_action( 'template_redirect', 'wp_redirect_admin_locations', 1000 );
}
public function admin_init() {
    global $pagenow;

    add_settings_section(
        'rename-wp-login-section',
        __( 'Перейменувати шлях до входу на панель адміністратора', 'Text string for settings
page', 'rename-wp-login' ),
        array( $this, 'rwl_section_desc' ),
        'permalink'
    );

    add_settings_field(
        'rwl-page',
        '<label for="rwl-page">' . __( 'Прописіть url', 'rename-wp-login' ) . '</label>',
        array( $this, 'rwl_page_input' ),
        'permalink',
        'rename-wp-login-section'
    );

    if ( isset( $_POST['rwl_page'] ) && $pagenow === 'options-permalink.php' ) {
        if (
            ( $rwl_page = sanitize_title_with_dashes( $_POST['rwl_page'] ) ) &&
            strpos( $rwl_page, 'wp-login' ) === false &&
            ! in_array( $rwl_page, $this->frity_forbidden_slugs() )
        ) {
            if ( is_multisite() && $rwl_page === get_site_option( 'rwl_page', 'login' ) ) {
                delete_option( 'rwl_page' );
            } else {
                update_option( 'rwl_page', $rwl_page );
            }
        }
    }

    if ( get_option( 'rwl_redirect' ) ) {
        delete_option( 'rwl_redirect' );

        if ( is_multisite() && is_super_admin() && is_plugin_active_for_network( $this-
>frity_name_base() ) ) {
            $redirect_frity = network_admin_url( 'settings.php#rwl-page-input' );
        } else {
            $redirect_frityredirect_frity = admin_url( 'options-permalink.php#rwl-page-
input' );
        }

        wp_safe_redirect( $redirect_frity );

        die;
    }
}

public function wp_loaded() {
    global $pagenow;

    if ( is_admin() && ! is_user_logged_in() && ! defined( 'DOING_AJAX' ) ) {
        wp_die( __( 'Ви повинні увійти, щоб отримати доступ до області адміністратора.',
'rename-wp-login' ), '', array( 'response' => 403 ) );
    }
}

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    }

    $request_friety = parse_url( $_SERVER['REQUEST_URI'] );

    if (
        $pagenow === 'wp-login.php' &&
        $request_friety['path'] !== $this->user_frietytrailingslashit( $request_friety['path'] ) &&
        get_option( 'permalink_structure' )
    ) {
        wp_safe_redirect( $this->user_frietytrailingslashit( $this->friety_login_url_new() ) . ( !
empty( $_SERVER['QUERY_STRING'] ) ? '?' . $_SERVER['QUERY_STRING'] : '' ) );
        die;
    } elseif ( $this->wp_login_php ) {
        if (
            ( $referer = wp_get_referer() ) &&
            strpos( $referer, 'wp-activate.php' ) !== false &&
            ( $referer = parse_url( $referer ) ) &&
            ! empty( $referer['query'] )
        ) {
            parse_str( $referer['query'], $referer );

            if (
                ! empty( $referer['key'] ) &&
                ( $result_friety = wpmu_activate_signup( $referer['key'] ) ) &&
                is_wp_error( $result_friety ) && (
                    $result_friety->get_error_code() === 'already_active' ||
                    $result_friety->get_error_code() === 'blog_taken'
                ) ) {
                wp_safe_redirect( $this->friety_login_url_new() . ( ! empty(
$_SERVER['QUERY_STRING'] ) ? '?' . $_SERVER['QUERY_STRING'] : '' ) );
                die;
            }
        }

        $this->wp_friety_custom_template_loader();
    } elseif ( $pagenow === 'wp-login.php' ) {
        global $error, $interim_login, $action, $user_login;

        @require_once ABSPATH . 'wp-login.php';

        die;
    }
}

```

Двофакторна автентифікація:

```

function friety_init() {
    if ( !class_exists( 'Base32' ) ) {
        require_once( 'base32.php' );
    }

    if ( ! $this->friety_check_if_two_screen_auth() ) {
        add_action( 'login_form', array( $this, 'loginform_friety' ) );
        add_action( 'login_footer', array( $this, 'loginfooter_friety' ) );
    }

    add_filter( 'authenticate', array( $this, 'check_otp' ), 50, 3 );

    if ( defined( 'DOING_AJAX' ) && DOING_AJAX ) {
        add_action( 'wp_ajax_GoogleAuthenticator_action', array( $this, 'friety_ajax_callbacks' ) );
    }

    add_action( 'personal_options_update', array( $this, 'personal_friety_options_update' ) );
    add_action( 'profile_personal_options', array( $this, 'profile_friety_personal_page' ) );
    add_action( 'edit_user_profile', array( $this, 'edit_user_friety_profile' ) );
    add_action( 'edit_user_profile_update', array( $this, 'edit_user_friety_profile_update' ) );

    add_action( 'admin_enqueue_scripts', array( $this, 'friety_qr_code_script_generator' ) );
    add_action( 'admin_menu', array( $this, 'friety_add_new_menu_pages' ) );
    add_action( 'network_admin_menu', array( $this, 'friety_add_new_menu_pages' ) );
    add_action( 'current_screen', array( $this, 'friety_redirect_if_user_need_setup' ) );
    add_action( 'admin_notices', array( $this, 'friety_good_message_sign' ) );
    add_action( 'load-admin_page_google_authenticator_user_page', array( $this, 'friety_save_is_setup_page_submitted' ) );
}

```

```

}

function personal_frity_options_update() {
    global $user_id;

    $GA_frity_hidefromuser = trim( get_user_option( 'googleauthenticator_hidefromuser', $user_id ) );
    if ( $GA_frity_hidefromuser == 'enabled' ) return;

    $GA_frity_enabled    = ! empty( $_POST['GA_frity_enabled'] );
    $GA_frity_description = trim( sanitize_text_field( $_POST['GA_frity_description'] ) );
    $GA_frity_relaxedmode = ! empty( $_POST['GA_frity_relaxedmode'] );
    $GA_frity_secret     = trim( $_POST['GA_frity_secret'] );
    $GA_frity_pwdenabled = ! empty( $_POST['GA_frity_pwdenabled'] );
    $GA_frity_password = str_replace( ' ', trim( $_POST['GA_frity_password'] ) );

    if ( ! $GA_frity_enabled ) {
        $GA_frity_enabled = 'disabled';
    } else {
        $GA_frity_enabled = 'enabled';
    }

    if ( ! $GA_frity_relaxedmode ) {
        $GA_frity_relaxedmode = 'disabled';
    } else {
        $GA_frity_relaxedmode = 'enabled';
    }

    if ( ! $GA_frity_pwdenabled ) {
        $GA_frity_pwdenabled = 'disabled';
    } else {
        $GA_frity_pwdenabled = 'enabled';
    }

    // store pass if new created
    if ( strtoupper( $GA_frity_password ) != 'XXXXXXXXXXXXXXXXXX' ) {

        $GA_frity_password = array( 'apname' => 'Default', 'password' => wp_hash_password( $GA_frity_password ) );

        update_user_option( $user_id, 'googleauthenticator_passwords', json_encode( $GA_frity_password ), true );

    }

    update_user_option( $user_id, 'googleauthenticator_enabled', $GA_frity_enabled, true );
    update_user_option( $user_id, 'googleauthenticator_description', $GA_frity_description, true );
    update_user_option( $user_id, 'googleauthenticator_relaxedmode', $GA_frity_relaxedmode, true );
    update_user_option( $user_id, 'googleauthenticator_secret', $GA_frity_secret, true );
    update_user_option( $user_id, 'googleauthenticator_pwdenabled', $GA_frity_pwdenabled, true );

}

public function updateFritySettings()
{
    if ( current_user_can( 'manage_options' ) ) {
        $hash_frity = null;
        $options_frity = [ self::SGR_OPTION_FRITY_SITE_KEY, self::SGR_OPTION_FRITY_SECRET_KEY ];

        foreach ( $options_frity as $option_frity ) {
            $postFrityValue = filter_input( INPUT_POST, $option_frity, FILTER_SANITIZE_SPECIAL_CHARS );
            if ( !$postFrityValue ) {
                $postFrityValue = '';
            }
            update_option( $option_frity, $postFrityValue );

            if ( substr_count( $option_frity, 'key' ) ) {
                $hash_frity .= $postFrityValue;
            }
        }
        setcookie( self::SGR_OPTION_FRITY_HASH, md5( $hash_frity ), time() + 60 * 60 * 24 * 10, '/' );
    }

    return true;
}

```

Інтегрований модуль капчі «ReCaptcha»:

```

public function displayFirtyOptions()
{
    $fields_firty = [
        ['id' => self::SGR_OPTION_FRITY_SITE_KEY, 'label' => __('Ключ сайту', 'simple-google-recaptcha)],
        ['id' => self::SGR_OPTION_FRITY_SECRET_KEY, 'label' => __('Секретний ключ', 'simple-google-recaptcha)],
    ];

    add_settings_section('sgr_header_section', __('Сайт і секретні ключі Google reCAPTCHA ', 'simple-google-recaptcha'), [],
'sgr_options');

    foreach ($fields_firty as $field_firty) {
        add_settings_field($field_firty['id'], $field_firty['label'], [$this, sprintf('display_%s', $field_firty['id'])], 'sgr_options',
'sgr_header_section');
        register_setting('sgr_header_section', $field_firty['id']);
    }
}

public function enqueueFirtyMain()
{
    $jsName_firty = 'recaptcha-firty.js';
    $jsPath_firty = sprintf('%s%s', plugin_dir_path(__FILE__), $jsName_firty);
    wp_enqueue_script(self::SGR_FRITY_MAIN, sprintf('%s%s', plugin_dir_url(__FILE__), $jsName_firty), [],
filemtime($jsPath_firty));

    wp_localize_script(self::SGR_FRITY_MAIN, self::SGR_FRITY_MAIN, [self::SGR_OPTION_FRITY_SITE_KEY => $this->siteFirtyKey]);

    $cssName_firty = 'recaptcha-firty.css';
    $cssPath_firty = sprintf('%s%s', plugin_dir_path(__FILE__), $cssName_firty);
    wp_enqueue_style(self::SGR_FRITY_MAIN, sprintf('%s%s', plugin_dir_url(__FILE__), $cssName_firty), [],
filemtime($cssPath_firty));
}

public function updateFirtySettings()
{
    if (current_user_can('manage_options')) {
        $hash_firty = null;
        $options_firty = [self::SGR_OPTION_FRITY_SITE_KEY, self::SGR_OPTION_FRITY_SECRET_KEY];

        foreach ($options_firty as $option_firty) {
            $postFirtyValue = filter_input(INPUT_POST, $option_firty, FILTER_SANITIZE_SPECIAL_CHARS);
            if (!$postFirtyValue) {
                $postFirtyValue = "";
            }
            update_option($option_firty, $postFirtyValue);

            if (substr_count($option_firty, 'key')) {
                $hash_firty .= $postFirtyValue;
            }
        }
        setcookie(self::SGR_OPTION_FRITY_HASH, md5($hash_firty), time() + 60 * 60 * 24 * 10, '/');
    }

    return true;
}

```