Bazaar – php example code – part 18 – forgotten pasword functionality

Article focus on simple way how to recover access to a page for user that forgotten password. Introduced solution generate new password, reset old and send them to the user on registration e-mail.

Expectation from password recovery mechanism

After longer period of user inactivity any user can feel difficulties to log in into their own account. All well planed pages must have functionality for password recovery. Simple way how to do it, is resend new password to a registration e-mail of the user.

This solution can be further hardened by expectation of change user password after gainig first access with send password (user must change to their own password).

All new solution incorporate two way authentication or use second verification by sending code to mobile phone or mobile application for assuring legitimity of password resend.

For smooth user experience is necessary provide functional UI on rsend form. Our application implement this feature way that you can see on following pictures.

Option for recovering password at the bottom of the Log In form

Bazaar - mainpage

Please use a valid email

Recovering access to existing user account

Your registration e-mail:

Please reenter

RESEND PASSWORD

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Resend form after providing wrong e-mail address

PASSWORD changed succesfuly.
Your new accessing credentials for account test was successfully sent via
provided e-mail test@test.sk.

Recovering access to existing user account

Your registration e-mail:

Please reenter

RESEND PASSWORD

Resend form after providing existing e-mail address
As you can see after providing valid e-mail address, new
pasword is created, inserted into a database and send via e-
mail. But this is our simple solution, how to mitigate rough
client that will request reset working password. This is only
one field for further hardening of this functionlity.

On next rows we take look on way how we implemented this
feature to existing page code.

Implementation of password recovery feature

Full code responsible for validation of provided e-mail for
password recovery. Recreation of password, inserting them into
a database as hash and sending as plain text within a e-mail
to user and notification of success or failure on any of the
working stage is as follow.

```
<!—
*********************************************************
—>
<!— PHP „self" code handling resend new default password
        —>
<!—
*********************************************************
—>
<!— Vrsion: 1.0        Date: 9.1-10.11.2021 by CDesigner.eu
            —>
<!—
*********************************************************
—>
```

```php
<?php
 require_once(‚appvars.php‘); // including variables for datab
ase
 require_once(‚captcha.php‘); // including generator of captch
a image
 session_start(); // start the session

 // two variables for message and styling of the mesage with b
ootstrap
 $msg = “;
 $msgClass = “;
 $usr_username = “;
 $usr_passwd = “;


 $_resended = false; // page is on first run before resending
new password to provided user e-mail


//get info that user is loged in, if not try it looking at coo
kies
//if(!isset($_COOKIE[‚s‘])) { old solution with cookies
  if(!isset($_SESSION[‚users_id‘])) { //new with session varia
bles
    if(isset($_POST[‚submit‘])) {
        /* Attempt MySQL server connection.  */
            $dbc = mysqli_connect(DB_HOST, DB_USER, DB_PW, DB
_NAME);

                // obtaining e-mail for recovery password
            $e_mail = htmlspecialchars($_POST[‚e_mail‘]);



            if(!empty($e_mail)) {


                if(filter_var($e_mail, FILTER_VALIDATE_EMAIL)
=== false){
                    // E-mail is not walid
                    $msg = ‚Please use a valid email‘;
```

```php
                    $msgClass = ‚alert-danger‘;
                } else {
                // e-mail is valid

                        // try lookup user database – if e-
mail is in a database

                            $sql = „SELECT users_id, username, use
r_role FROM bazaar_user WHERE email = „.“,$e_mail'“ ;

                            $data = mysqli_query($dbc, $sql);

                            if(mysqli_num_rows($data) == 1) {
                                //obtain user data form executed q
uery
                                $row = mysqli_fetch_array($data);

                                $username = $row[,username‘]; // g
et    uswername    asociated    with    provided    e-
mail from fetched data from a users database

                                // display info about account that
 was gathered from database for that e-mail
                                $_resended == true; //page is relo
aded and will display info about succesfull reset and resend p
assword

                                // generate new strong password

                                    define(,PASS_NUMCHARS‘, 10); /
/ number of characters inrandom passphrase

                                    // generating passphrase by ra
ndom numbers
                                $new_pass_phrase = „“;
                                for($i = 0; $i < CAPTCHA_NUMCH
ARS; $i++ ) {

                                    $new_pass_phrase .= chr(ra
```

```php
nd(48, 90)); //ascii from 0 to Z
                        }



                        // hash passord
                        $new_pass_hash = SHA1($pass_ph
rase);


                         // insert new password hash
into a database for that e-mail
                        $sql = „UPDATE bazaar_user SET


                                pass_word = ‚“.$ne
w_pass_hash.“,

                                WHERE   email = „.
“,$e_mail'“ ;
                        if($output = mysqli_query(
$dbc, $sql)){
                            if($output) {  // if a
ny record obtained from SELECT query
                            //echo „Heslo bolo ú
spešne zmenené“;
                                $msg .= ‚ PASSWORD c
hanged succesfuly. ‚;
                                        $msg
Class = ‚alert-success‘;


                            } else{
                                //echo „Password c
annot be changed.“; // if no records in table
                                $msg .= ‚ PASSWORD
 cannot be changed. ‚;
                                        $m
sgClass = ‚alert-danger‘;
                                }
                        } else {
```

```php
                                    echo „ERROR: Could not
 able to execute $sql. “ . mysqli_error($dbc); // if database
query problem
                                    }
                                        // send e-
mail with new generated password to provided e-mail address


                            /****************************
**************************
                                    *   construct e-
mail with new password for access into a bazaar account
                            */


                                    $toEmail = $e_mail; //!!! e-
mail address to send to – change for your needs!!!
                                    // debug only for test becaus
mercury is not in xamp configured for sending outside a local
domain $toEmail = ‚ciljak@localhost.org‘;
                                    $subject = ‚New login on bazaa
r for user ‚.$username;
                                    $body = ‚<h2>Your new access c
redentials for account ‚.$username.‘ with associated e-
mail : ‚.$e_mail.‘ </h2>
                                    <h4>For gaining access to
your account please use these credentials:  </h4><p>username:‘
.$username.‘,</p><p> password: ‚.$pass_phrase.‘, </p>
                                    <p>We strongly encourage y
ou to change password after succesfful login on edit user page
 for your own strong password!</p>
                                    <h4>Visit us on <a href=“b
azaar.com“>bazaar.com</a></h4>
                                    ‚;


                            // Email Headers
                                    $headers = „MIME-
Version: 1.0“ .“\r\n“;
                                    $headers .=“Content-
Type:text/html;charset=UTF-8“ . „\r\n“;
                                    // Additional Headers
```

```php
                                //$headers .= „From: “ .$first
_name_buyer. „<„.$email_buyer.“>“. „\r\n“;
                                $headers .= „From: admin@bazaa
r.com „;


                                if(mail($toEmail, $subject, $b
ody, $headers)){
                                    // Email Sent
                                    $msg .= ‚<p> Your new acce
ssing credentials for account ‚.$username.‘ was successfully s
ent via provided e-mail ‚.$e_mail.‘.</p>‘;
                                    $msgClass = ‚alert-
success‘;
                                } else {
                                    // Failed
                                    $msg = ‚New access credent
ials     can     not     be     send     via     e-
mail due to other technical problem. Please contact site admin
 for further help.‘;
                                    $msgClass = ‚alert-
danger‘;
                                }



                            // $home_url = ‚http://‘. $_SERVER
[‚HTTP_HOST‘] . dirname($_SERVER[‚PHP_SELF‘]) . ‚/index.php‘;
                            // header(‚Location:‘. $home_url);
                            // Free result set
                            mysqli_free_result($data);
                            // Close connection
                            mysqli_close($dbc);
                        } else {
                            // user account with requested -
email does not exist – you cannot reset them – only display in
fo about retyping e-mail address
                            $msg .= „User account with e-
mail:   „.   $e_mail.   „.   does   not   exist.   E-
mail with new login credentials can not be send!   „;
                            $msgClass = ‚alert-danger‘;
```

```php
                }
            }

        } else {
            // username/ password were not entered – display error message
                $msg .= „Sorry, you must eneter e-mail address for sending new login credentials. „;
                $msgClass = ‚alert-danger';

        }
    }
}
?>


<!– ***************************************** –>
<!– HTML code containing Form for submitting –>
<!– ***************************************** –>
<!DOCTYPE html>
<html>
<head>
    <title> Bazaar resend password </title>
    <link rel=“stylesheet“ href=“./css/bootstrap.min.css“> <!– bootstrap mini.css file –>
    <link rel=“stylesheet“ href=“./css/style.css“> <!– my local.css file –>
    <script src=“https://code.jquery.com/jquery-3.1.1.slim.min.js“ integrity=“sha384-A7FZj7v+d/sdmMqp/nOQwliLvUsJfDHW+k9Omg/a/EheAdgtzNs3hpfag6Ed950n“ crossorigin=“anonymous“></script>
        <script src=“https://cdnjs.cloudflare.com/ajax/libs/tether/1.4.0/js/tether.min.js“ integrity=“sha384-DztdAPBWPRXSA/3eYEEUWrWCy7G5KFbe8fFjk5JAIxUYHKkDx6Qin1DkWx51bBrb“ crossorigin=“anonymous“></script>

</head>
<body>
    <nav class=“navbar „>
      <div class=“container“ id=“header_container_580″>
        <div class=“navbar-header“>
```

```php
            <?php
                require_once(‚headerlogo.php');
            ?>
                                            <a    class="navbar-
brand" href="index.php">Bazaar — mainpage</a>
        </div>
      </div>
    </nav>
    <div class="container" id="formcontainer">
        <?php if($msg != "): ?>
        <br>
            <div class="alert <?php echo $msgClass; ?>"><?php
echo $msg; ?></div>
        <?php endif; ?>

        <?php

                // if (empty($_resended)) { $_resended = false;
};
                if(empty($_SESSION[‚users_id']) &&  ($_resended
== false)) { // solution with sessions — if user is not loged
in
                // only show for if session with name users_id
 does not exist
                //echo , <br> ‚;
                        //echo   ,<p class="alert alert-
danger">' . $msg . ,</p>';
        ?>

        <br>
        <img id="calcimage" src="./images/resend.png" alt="res
end password" width="150″ >
        <br>
        <form  method="post" action="<?php echo $_SERVER[‚PHP_
SELF']; ?>">
            <div id="login">
                <legend> Recovering access to existing user ac
count <legend>
                <br>

                <label>Your registration e-mail:</label>
```

```php
                        <input type="text" onfocus="this.value='<?
php echo isset($_POST[,e_mail']) ? " : "; ?>'" name="e_mail" c
lass="form-
control" value="<?php echo isset($_POST[,e_mail']) ? ,Please r
eenter' : ,e-mail'; ?>">
                        <br>
```

```
          </div>
          <center><input id="loginsubmitt" type="submit" name
="submit"                  class="btn                   btn-
warning" value="Resend password"> </center>
          <br>
        </form>
```

```php
          <?php }  else if ($_resended == true) {
                              // user is not loged and e-
mail was good submited and there display info about sucessfull
 resend e-mail

                    echo ,<br>';
                              echo ,<p class="alert alert-
success"> For your account' . $username. , we provided new pas
sword.</em></p>'; // session solution
                              echo ,<p class="alert alert-
success"> Provided password has been sent in to e-
mail <em>' . $e_mail. ,</em> used during resistration of your
account. </p>'; // session solution
                              echo ,<p class="alert alert-
success"> We recommend you change them after first successful
login on edit profile page. </a></p>';
                } else {
                    // user is loged in – there is no need for r
esend password

                    echo ,<br>';
                              echo ,<p class="alert alert-
success"> You are loged in as <em>' . $_SESSION[,username']. ,
</em></p>'; // session solution
                              echo ,<p class="alert alert-
success"> There is <em>no need</em> for resend new password. <
```

```
/p>'; // session solution
                        echo ,<p class="alert alert-
success"> If you will logout or login with another credentials
, please first <a href="logout.php">logout!. </a></p>';
        }
    ?>
    </div>

    <?php  // footer include code
        require_once(,footer.php'); // including footer
        generate_footer(580); // function from footer.php fo
r seting width, you can use 580 and 1060px width
    ?>

</body>
</html>
```

Conclusion

Password resend functionality conclude demonstration of implementation features to our bazaar app. This series introduces older functional approach for use of php scripting. All bigger projects stand on MVC object oriented concept with support of php frameworks. Please look at our introduction as on demonstration how to do some interactive webpages with php server scripting for absolute beginners with focus on further study. Our big next goal is focus on object oriented programming and new way how to write more reusable code on the future.

All code of bazaar demonstration app can be obtained from github here.