

Package ‘login’

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Type Package

Title 'shiny' Login Module

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Description Framework for adding authentication to 'shiny' applications.
Provides flexibility as compared to other options for where user credentials are saved, allows users to create their own accounts, and password reset functionality. Bryer (2024)
<doi:10.5281/zenodo.10987876>.

License GPL (>= 3)

URL <https://github.com/jbryer/login>, <https://jbryer.github.io/login/>

BugReports <https://github.com/jbryer/login/issues>

Imports cookies, DBI, digest, emayili, htmltools, shiny, shinybusy, shinyjs, stringr, utils

Suggests knitr, rmarkdown

Enhances RSQLite

VignetteBuilder knitr

Encoding UTF-8

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emayili_emailer	<i>Returns a function to send emails using the emayili package.</i>
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Description

This returns a function that can be used with the [login_server\(\)](#). Specifically, the function takes two parameters, to_email and message.

Usage

```
emayili_emailer(
  email_host = NULL,
  email_port = NULL,
  email_username = NULL,
  email_password = NULL,
  from_email = NULL
)
```

Arguments

email_host	SMTP email host.
email_port	SMPT email port.
email_username	username for the SMTP server.
email_password	password for the SMTP server.
from_email	the from email address sent from login_server() .

Value

returns a function to send an email using the emayili package.

See Also

[login_server\(\)](#)

is_logged_in	<i>Display Shiny elements only if the user is logged in.</i>
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Description

This function can be used on the Shiny UI side. It will check to see if the user is logged in, if so the other Shiny elements will be displayed.

Usage

```
is_logged_in(id, ...)
```

Arguments

id	id unique ID for the Shiny Login module.
...	Shiny UI elements.

Value

a `shiny::conditionalPanel()` object.

See Also

[login_server\(\)](#)

is_not_logged_in	<i>Display Shiny elements only if the user is not logged in.</i>
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Description

This function can be used on the Shiny UI side. It will check to see if the user is not logged in, if so the other Shiny elements will be displayed.

Usage

```
is_not_logged_in(id, ...)
```

Arguments

id	id unique ID for the Shiny Login module.
...	Shiny UI elements.

Value

a `shiny::conditionalPanel()`

See Also[login_server\(\)](#)

login_server	<i>Login server module.</i>
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Description

This is the main server logic for the login Shiny module to be included in server.R side,.

Usage

```
login_server(  
  id,  
  db_conn = NULL,  
  users_table = "users",  
  activity_table = "users_activity",  
  emailer = NULL,  
  new_account_subject = "Verify your new account",  
  reset_password_subject = "Reset password",  
  verify_email = !is.null(emailer),  
  additional_fields = NULL,  
  cookie_name = "loginusername",  
  cookie_expiration = 30,  
  username_label = "Email:",  
  password_label = "Password:",  
  create_account_label = "Create Account",  
  create_account_message = NULL,  
  reset_email_message = NULL,  
  enclosing_panel = shiny::wellPanel,  
  code_length = 6,  
  salt = NULL,  
  salt_algo = "sha512",  
  shinybusy_spin = "fading-circle",  
  shinybusy_position = "full-page"  
)
```

Arguments

id	unique ID for the Shiny Login module.
db_conn	a DBI database connection.
users_table	the name of the table in the database to store credentials.
activity_table	the name of the table in the database to log login and logout activity.

emailer	function used to send email messages. The function should have have three parameters: <code>to_email</code> for the address to send the email, <code>subject</code> for the subject of the email and <code>message</code> for the contents of the email address. See emayili_emailer() for an example.
new_account_subject	the subject used for verifying new accounts.
reset_password_subject	the subject of password reset emails.
verify_email	if true new accounts will need to verify their email address before the account is crated. This is done by sending a six digit code to the email address.
additional_fields	a character vector of additional fields the user is asked to fill in at the when creating a new account. The names of the vector correspond to the variable names and the values will be used as the input labels.
cookie_name	the name of the cookie saved. Set to NULL to disable cookies.
cookie_expiration	the number of days after which the cookie will expire.
username_label	label used for text inputs of username.
password_label	label used for text inputs of password.
create_account_label	label for the create account button.
create_account_message	Email message sent to confirm email when creating a new account. Include <code>%s</code> somewhere in the message to include the code.
reset_email_message	Email message sent to reset password. Include <code>%s</code> somewhere in the message to include the code.
enclosing_panel	the Shiny element that contains all the UI elements. The default is shiny::wellPanel() . If you wish a more subtle appearance htmltools::div() is a reasonable choice.
code_length	the number of digits of codes emailed for creating accounts (if <code>verify_email == TRUE</code>) or resetting passwords.
salt	a salt to use to encrypt the password before storing it in the database.
salt_algo	the algorithm used to encrypt the password. See digest::digest() for more details.
shinybusy_spin	Style of the spinner when sending emails. See shinybusy::use_busy_spinner() for more information.
shinybusy_position	Position of the spinner when sending emails. See shinybusy::use_busy_spinner() for more information.

Value

a [shiny::reactiveValues\(\)](#) object that includes two values: `logged_in` (this is TRUE if the user is logged in) and `username` which has the user's login username if logged in.

Examples

```

library(shiny)
library(login)

##### User Interface #####
ui <- fluidPage(
  titlePanel("Shiny Login Simple Demo"),
  p("You can login with 'test/test'."),
  login::login_ui(id = 'login_demo'),
  login::logout_button('login_demo'),
  hr(),
  div('Are you logged in? ', textOutput('is_logged_in')),
  div('Username: ', textOutput('username')),
  login::is_logged_in(
    id = 'login_demo',
    div("This only shows when you are logged in!")
  ),
  login::is_not_logged_in(
    id = 'login_demo',
    div("This only shows when you are NOT logged in!")
  )
)

##### Server #####
server <- function(input, output, session) {
  USER <- login::login_server(
    id = 'login_demo',
    db_conn = RSQLite::dbConnect(RSQLite::SQLite(), 'users.sqlite')
  )

  observeEvent(USER$logged_in, {
    if(USER$logged_in) {
      shinyjs::hide(id = 'login_box')
    } else {
      shinyjs::show(id = "login_box")
    }
  })

  output$is_logged_in <- renderText({
    USER$logged_in
  })

  output$username <- renderText({
    USER$username
  })
}

##### Run the application #####
if(interactive()) {
  shinyApp(ui = ui, server = server)
}

```

login_ui	<i>Login UI elements.</i>
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Description

This will render (if the user is not logged in) text boxes and buttons for the user to login.

Usage

```
login_ui(id)
```

Arguments

id	id unique ID for the Shiny Login module.
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Value

a `shiny::div()` object.

logout_button	<i>Logout button.</i>
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Description

Render a button for the user to logout.

Usage

```
logout_button(  
  id,  
  label = "Logout",  
  icon = shiny::icon("right-from-bracket"),  
  style = "",  
  check_login = TRUE  
)
```

Arguments

id	id unique ID for the Shiny Login module.
label	label of the logout button.
icon	icon for the logout button.
style	CSS styles for the logout button.
check_login	if TRUE this will call <code>is_logged_in()</code> .

Value

a `shiny::actionButton()` if the user is logged in.

`new_user_ui` *UI for creating a new user account.*

Description

This will render the UI for users to create an account.

Usage

```
new_user_ui(id)
```

Arguments

`id` id unique ID for the Shiny Login module.

Value

shiny object containing the input fields for a user to create an account.

`passwdInput` *Password input textbox.*

Description

This is an extension to Shiny's built in `passwordInput` by encrypting the password client side before sending it to the server. Although it is encrypted in the client using JavaScript it highly recommend that you also use an SSL certificate (for https) as well.

Usage

```
passwdInput(inputId, label, value)
```

Arguments

`inputId` ID for the input.
`label` label for the textbox.
`value` default value.

Value

a `shiny::tagList()` object.

reset_password_ui	<i>UI for resetting password.</i>
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Description

Displays UI for users to reset their password. In order for the password reset feature to work credentials to a SMTP server must be passed to the [login_server\(\)](#) function.

Usage

```
reset_password_ui(id)
```

Arguments

id	id unique ID for the Shiny Login module.
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Value

a shiny object containing the input fields for a user to reset their password.

use_login	<i>JavaScript and CSS dependencies.</i>
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Description

This ensures the JavaScript and CSS dependencies are available to the client. Files are located in assets/ folder when installed..

Usage

```
use_login()
```

Value

a [htmltools::htmlDependency\(\)](#) object defining the JavaScript and CSS files.

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