

# Taking inspirations from proven frontend frameworks to add to Shiny with 4 new packages

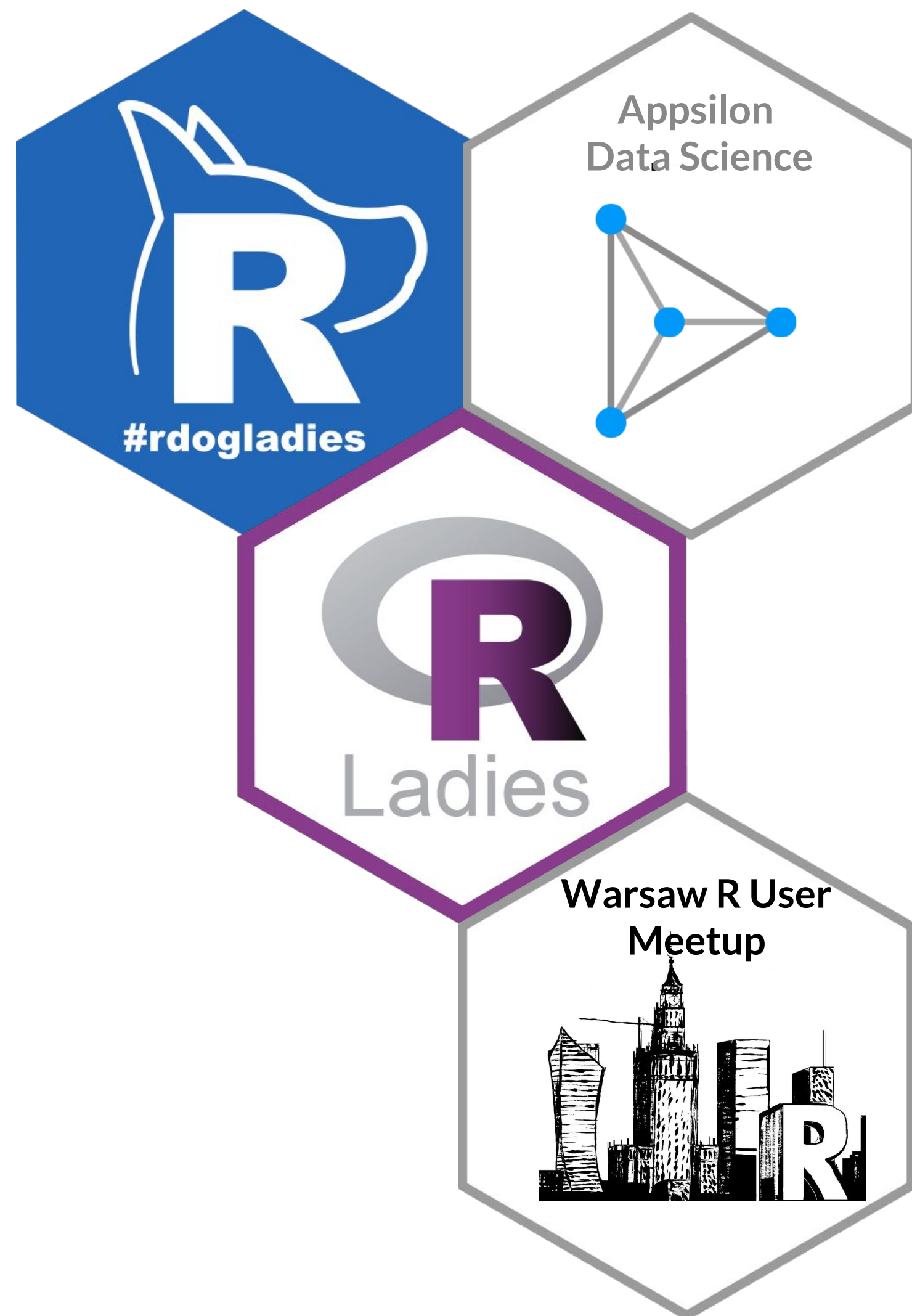
**Olga Mierzwa-Sulima**  
**Senior Data Scientist**  
@olga\_mie @AppsilonDS



# Taking inspirations from proven frontend frameworks to add to Shiny with ~~4~~<sup>6</sup> new packages

**Olga Mierzwa-Sulima**  
**Senior Data Scientist**  
@olga\_mie @AppsilonDS





# HELLO!

@olga\_mie  
@AppsilonDS







SHINE  
BRIGHTER

# USEFUL TOOLS

**UI**

**FUNCTIONALITY**

**MANAGE  
USERS**





**Appsilon**  
DATA SCIENCE

BEAUTIFUL UI







# shiny.semantic

## PROVEN IN BATTLE

...

**Package:** shiny.semantic - [appsilon.github.io/shiny.semantic](https://appsilon.github.io/shiny.semantic)

- R package available on CRAN and GitHub

```
install.packages('shiny.semantic')  
devtools::install_github('Appsilon/shiny.semantic')
```

- Package for SemanticUI components
- **Alternative to** currently available **Bootstrap**
- **Domain specific language** wrapping HTML tags



# shiny.semantic

## PROVEN IN BATTLE



- Downloads and imports **Semantic UI CSS** classes
- Enabling the user to **define Shiny (text) inputs**
- Contains ready to use **pre-defined more complex elements** as R functions
- **Components** [demo.appsilondatascience.com/shiny-semantic-components/](https://demo.appsilondatascience.com/shiny-semantic-components/)

*Multiple selection search dropdown*


 

Selected letter:

A



*Search field*

Selected country:

"Belgium"





**Client's info**

Name	John Smiths
City	Warsaw, Poland
Client since	07/2014
Our rating	★★★★★
Monthly spendings	\$2500 aprox.

**Calls history**

 Show  entries      Search: 

	Date	Topic	Consultant
1	2017-11-28	Connection problem	Kate Lees
2	2017-11-29	New plan	You
3	2017-12-04	Resume services	Mike Bradley
4	2017-12-13	Suspension of service	Kate Lees

Showing 1 to 4 of 4 entries

Previous

1

Next

**Convert to 'Pay as you go' plan**

Estimated reduction

33% cost reduction based on historical data

+ Proceed

**Offer health insurance**

Upselling opportunity

Clients of following profile are 2 times more likely to accept our health insurance plan

+ Proceed

**Sell credit card for spouse**

Upselling opportunity

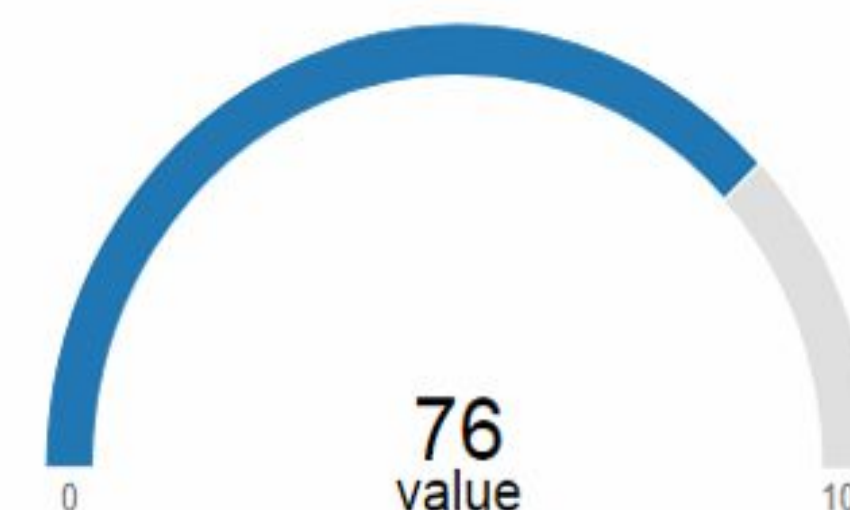
Accounts used by familiy members are likely to accept additional card and increase number of transactions.

+ Proceed

**Current call**

# 05:37

EMOTIONS



Voice analysis: Interested

FEEDBACK

Score client:

★★★★★

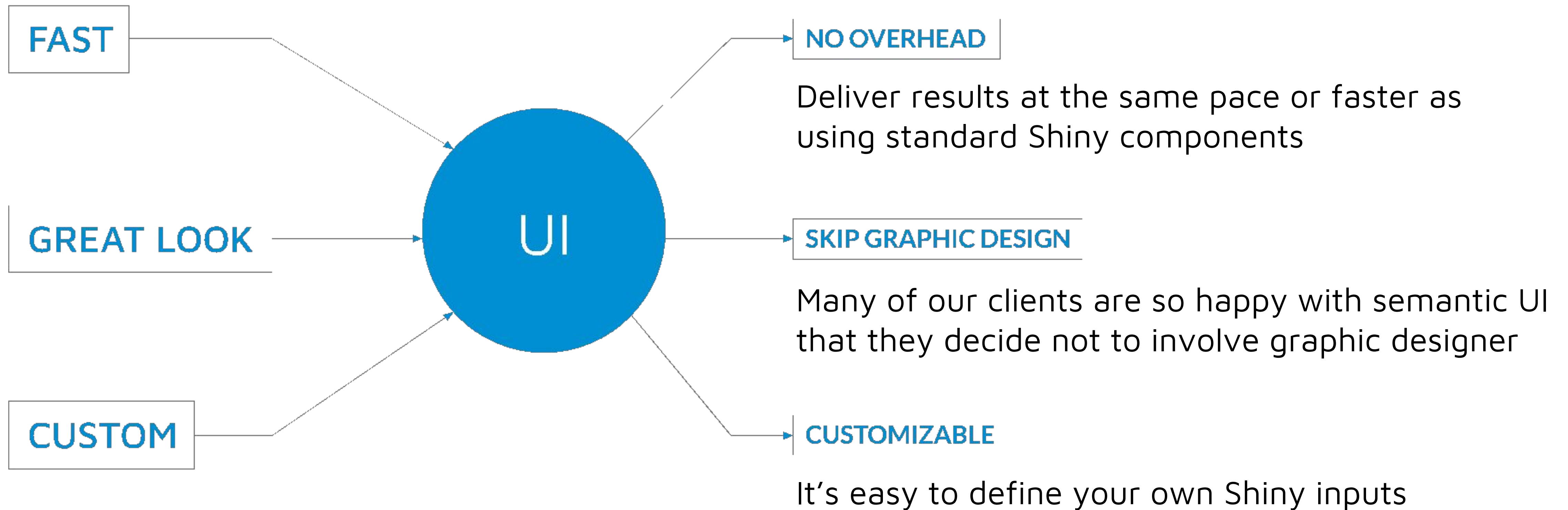
Churn risk - your feelings:

★★★★★



# User Interface

## USING SHINY.SEMANTIC









# **semantic.dashboard**

## NEW KID ON THE BLOCK

...

**Package:** semantic.dashboard - [github.com/Appsilon/semantic.dashboard](https://github.com/Appsilon/semantic.dashboard)

- R package available on CRAN and GitHub

```
install.packages('semantic.dashboard')  
devtools::install_github('Appsilon/semantic.dashboard')
```

- Package for SemanticUI Shiny dashboard
- **Drop-in replacement** for most cases

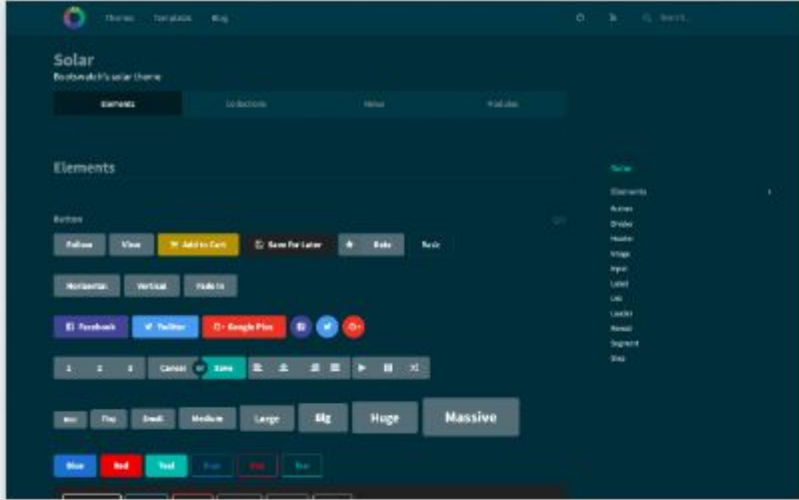
```
library('shinydashboard') => library('semantic.dashboard')
```



# semantic.dashboard THEMES MADE EASY


Use Semantic UI themes to customize the dashboard look.

```
dashboardPage(..., theme = "united")
```



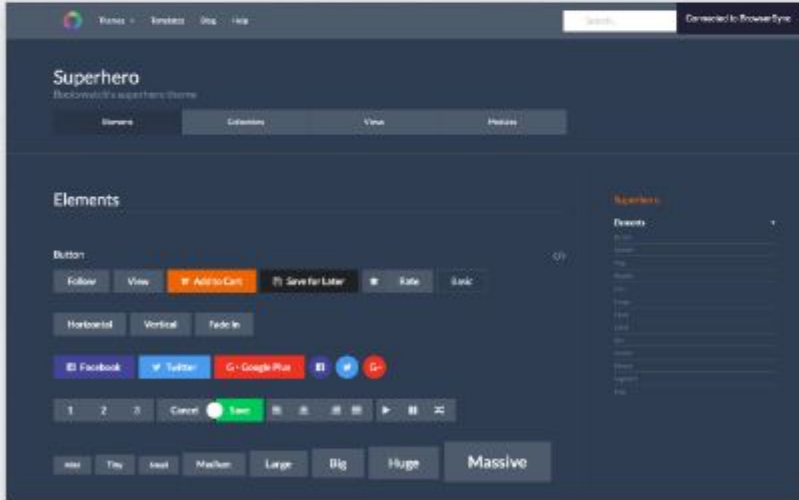
**Solar**  
A spin on Solarized

Preview Download



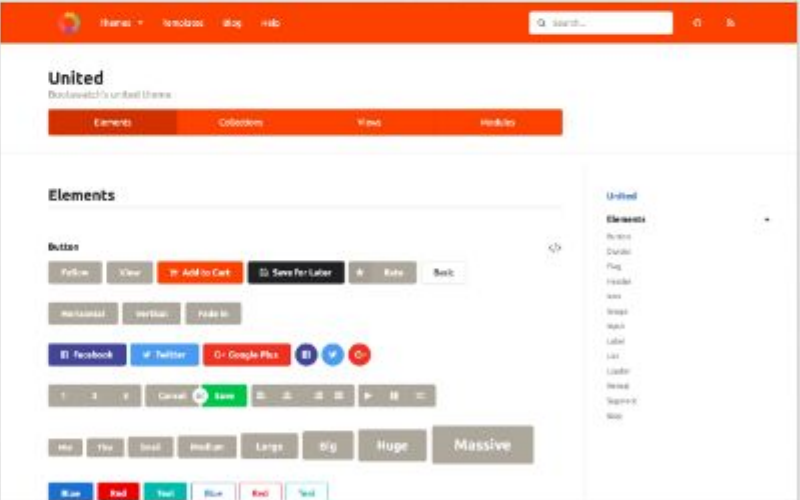
**Spacelab**  
Silvery and sleek

Preview Download



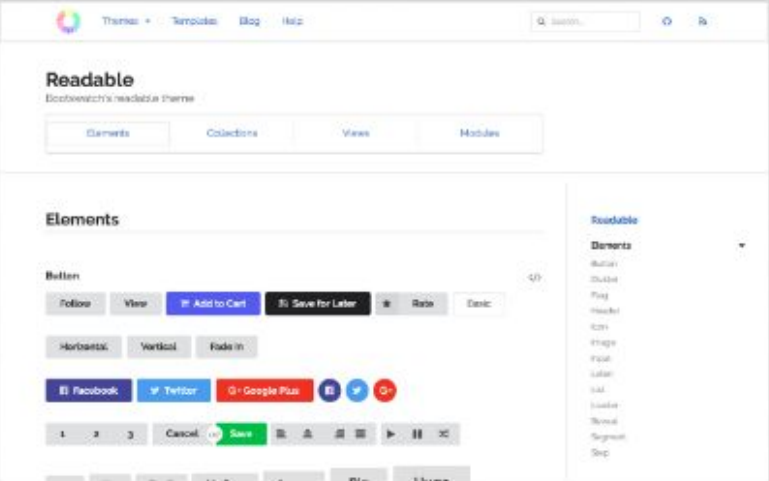
**Superhero**  
The brave and the green

Preview Download



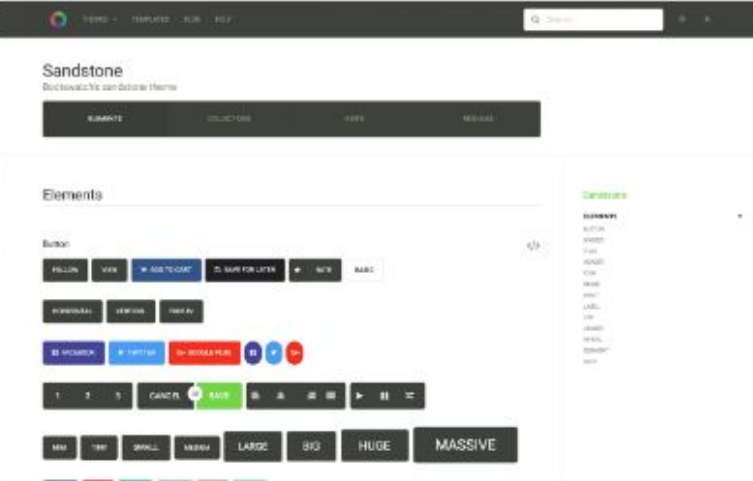
**United**  
Ubuntu orange and unique font

Preview Download



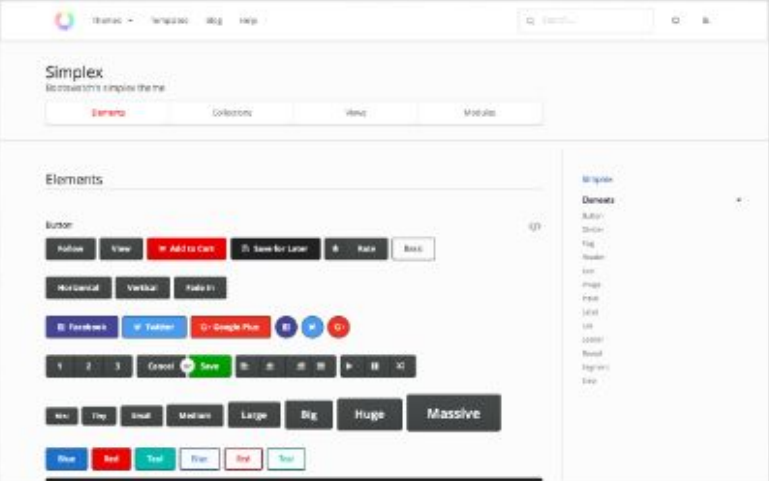
**Readable**  
Optimized for legibility

Preview Download



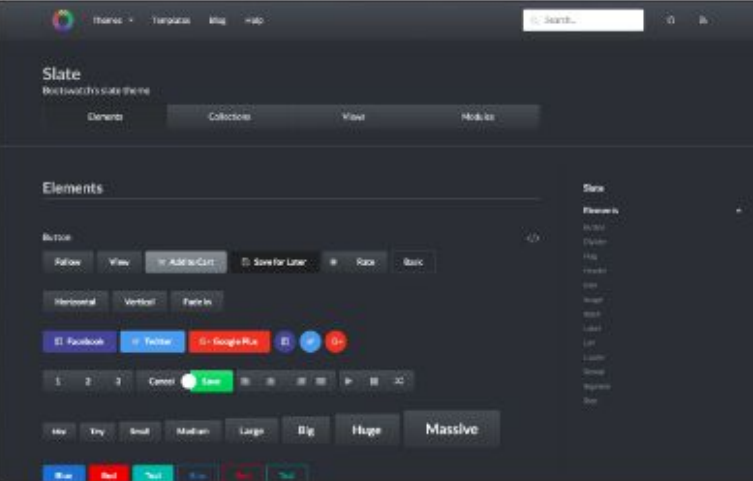
**Sandstone**  
A touch of warmth

Preview Download



**Simplex**  
Mini and minimalist

Preview Download



**Slate**  
Shades of gunmetal gray

Preview Download





**Appsilon**  
DATA SCIENCE

# FUNCTIONALITY







# **shiny.router** SUPPORTED BY COMMUNITY

...

**Package:** shiny.router - [github.com/Appsilon/shiny.router](https://github.com/Appsilon/shiny.router)

- R package available on GitHub

```
devtools::install_github('Appsilon/shiny.router')
```

- Making **routing possible** with Shiny
- Passing url parameters to the App



# URL PARAMETERIZATION

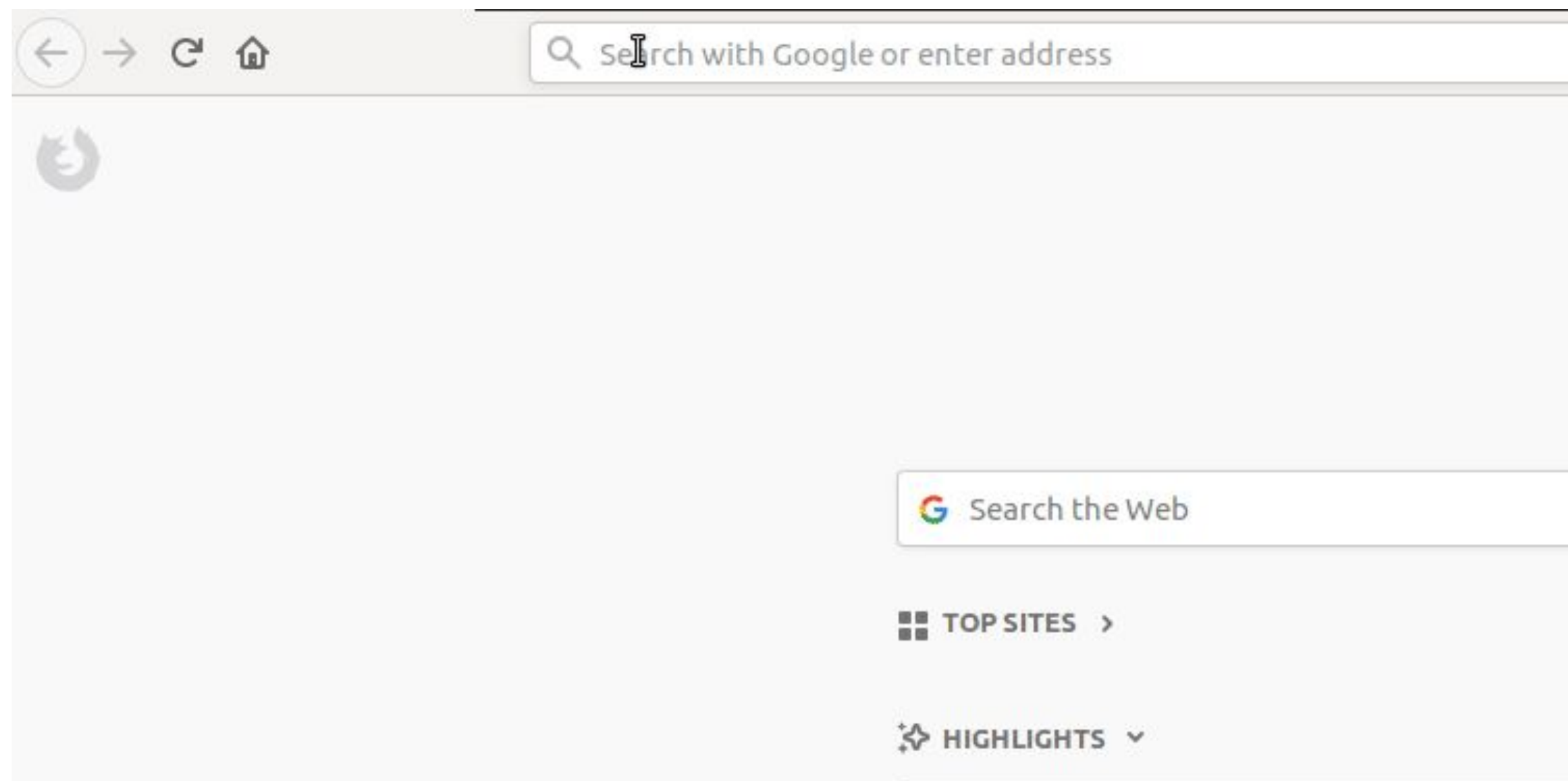


`http://example.com/over/there?param=value`



Proceed with ? param1=value1  
Combine 2 or more params using &

**Example:** `?x=1&y=2`



## Extract params in Shiny

```
get_query_param()
```



```
library(shiny)
library(shiny.router)

menu <- (
  tags$ul(
    tags$li(a(class = "item", href = "/", "Page")),
    tags$li(a(class = "item", href = route_link("other"), "Other page"))
  )
)

page <- function(title, content) {
  div(
    menu,
    titlePanel(title),
    p(content)
  )
}

root_page <- page("Home page", "Welcome on sample routing page!")
other_page <- page("Some other page", "Lorem ipsum")

router <- make_router(
  route("/", root_page),
  route("other", other_page)
)

ui <- shinyUI(fluidPage(
  router_ui()
))

server <- shinyServer(function(input, output, session) {
  router(input, output, session)
})

shinyApp(ui, server)
```



Generates menu in user interface with links.



Creates UI for each page



Filling in the content



**Creates router.** Provide routing paths and UI.



**Create output for router** in main UI of a Shiny app.



**Plug router into server.**







# **shiny.i18n**

## INTERNATIONALIZATION

...

**Package:** shiny.i18n - [github.com/Appsilon/shiny.i18n](https://github.com/Appsilon/shiny.i18n)

- R package available on GitHub

```
devtools::install_github('Appsilon/shiny.i18n')
```

- Based on Ruby framework
- **Helps** build **multi language** apps
- Supports translations in json or csv
- Early development stage, but stable



# shiny.i18n

## INTERNATIONALIZATION

...

```
i18n <- Translator$new(translation_csvs_path = "./")  
  
i18n$set_translation_language("en")  
  
ui <- shinyUI(fluidPage(  
  titlePanel(i18n$t("Hello Shiny!"))  
))
```

- Loads csv with translations
- Sets translations language
- Translates the selected element





**Appsilon**  
DATA SCIENCE

# MANAGE USERS







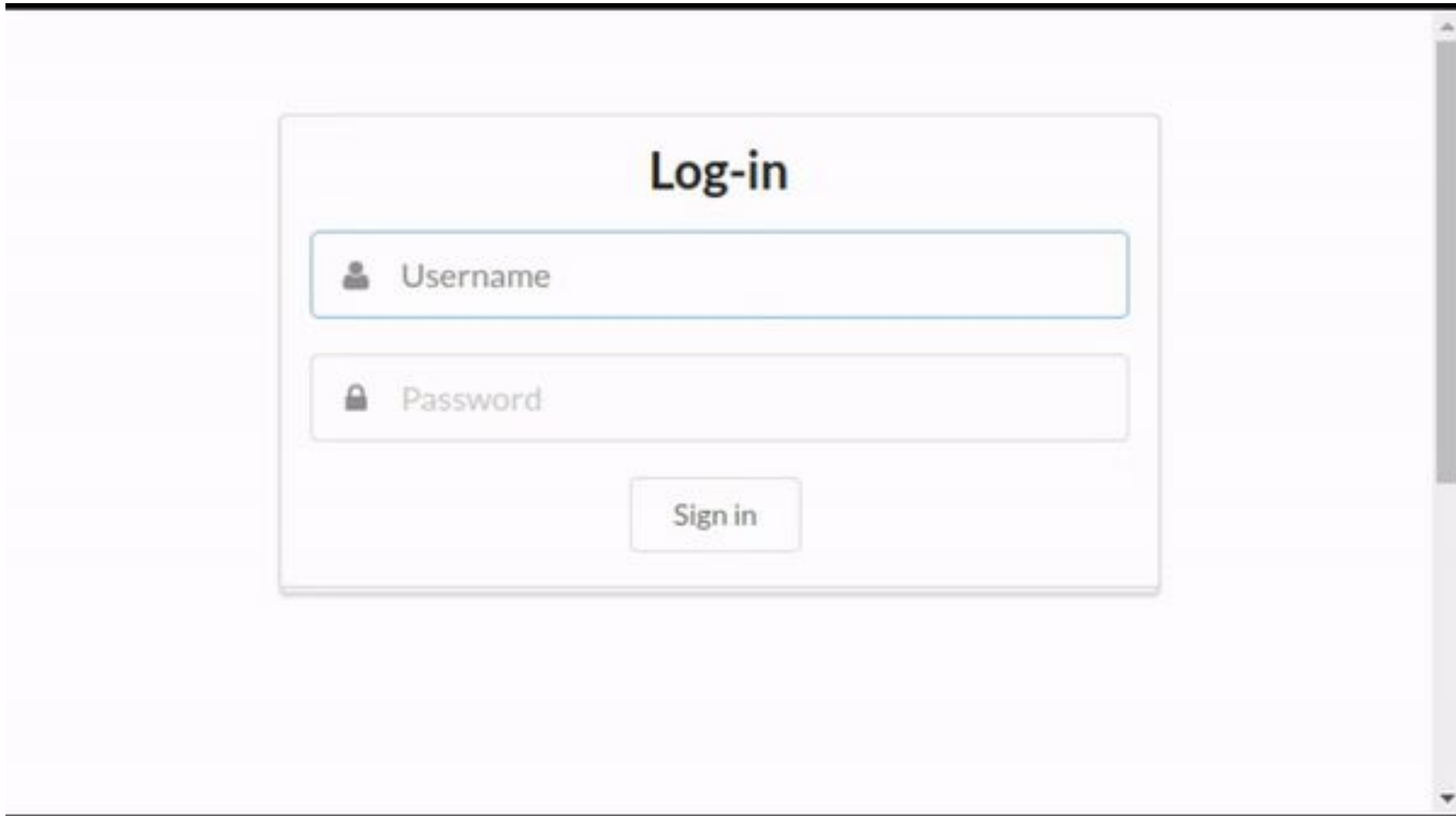
# BIG THING IN SMALL PACKAGE



- Package dedicated to Appsilon's clients
- Authentication handled by Shiny done on the application side
  - Define different access levels for users
- Possible to integrate with Google Sign In or LDAP



# BIG THING IN SMALL PACKAGE



A screenshot of a web application interface, likely a Shiny app, showing a login form. The form is titled "Log-in" and contains two input fields: "Username" (with a user icon) and "Password" (with a lock icon). Below the fields is a "Sign in" button. The interface is displayed within a browser window with a scrollbar on the right.



# SHINY.USERS SIBLING



- Package dedicated to Appsilon's clients
- Allowing to **collect statistics** about users activity in the App
  - session duration
  - inserted inputs
  - clicked objects
  - activity of a certain user
  - developer can define input she wants to track
- User Management



# SHINY.USERS SIBLING



General stats

Activity stats

User specific stats

Tools

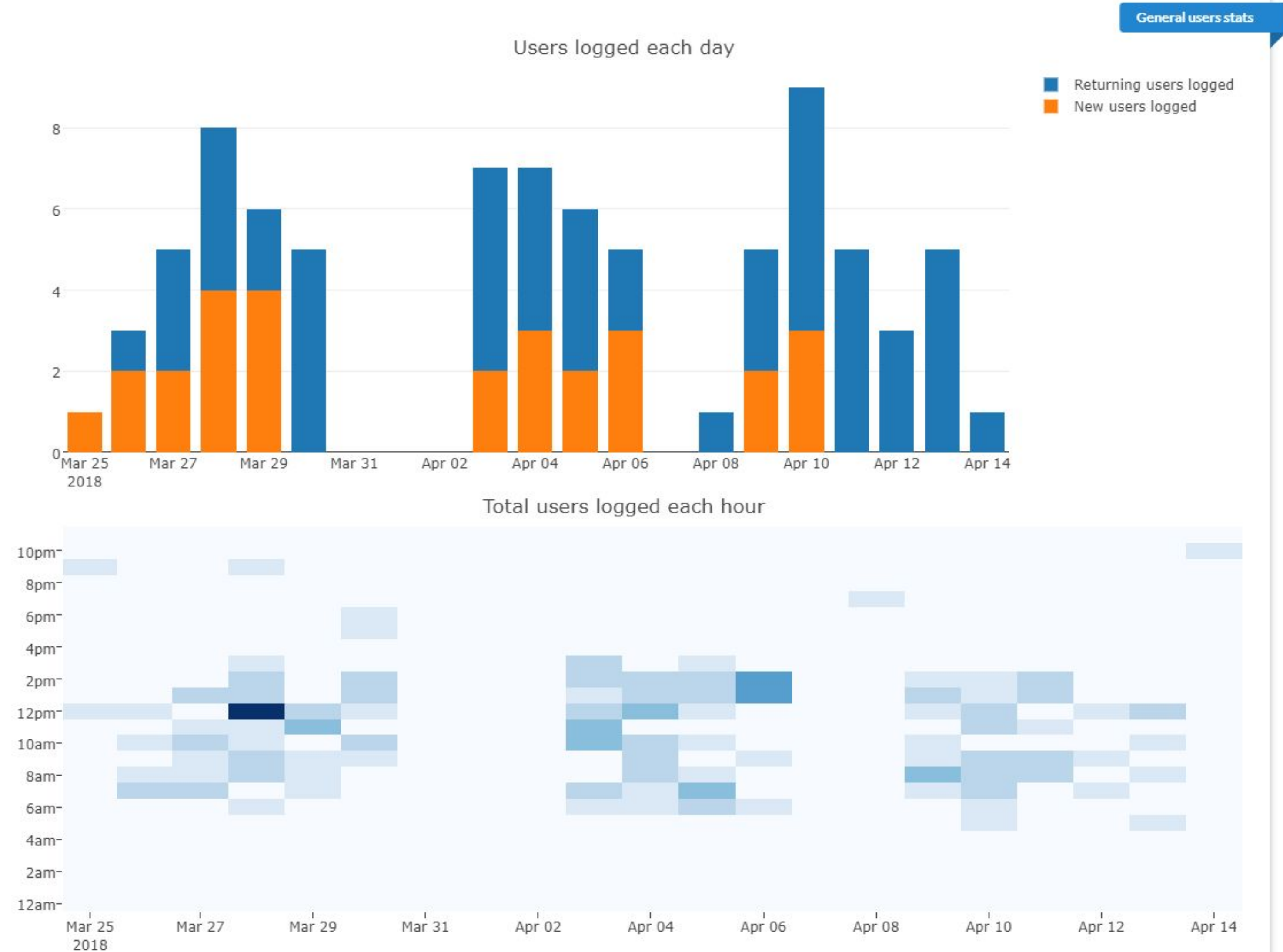
Date window

From  
25.03.2018

To  
14.04.2018

Data download

Download





# CONTRIBUTE YOURSELF

 <https://github.com/Appsilon>

- Take package for a test drive
  - Open PR
  - Report an issue
- Add feature request
  - Add example
- Improve documentation
  - Write a blogpost
  - Create Hexsticker 🤗



# Questions?

 olga\_mie

 [olga@appsilondatascience.com](mailto:olga@appsilondatascience.com)

 <https://github.com/Appsilon>

[appsilondatascience.com](https://appsilondatascience.com)