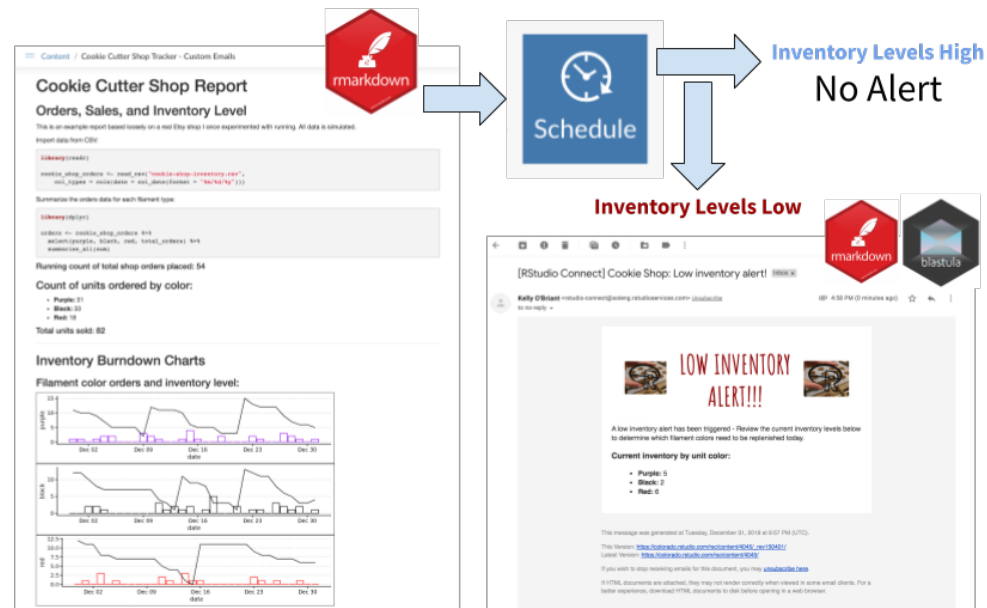# Correus-e via R en GenCat amb Blastula

Trobada analistes de dades de la Gencat a l'ACA[1] (C/ Provença 260, BCN). Dll. 29/05/2023, 16:00-17:30h.

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[3]

Trobada analistes de dades

La idea és desvirtualitzar-nos, conèixer-nos, compartir informació... i després qui vulgui ens podem allargar i anar a prendre quelcom.

Accés obert a partir de les 15h15. Entrant per la porta del carrer (Provença 260), just la primera sala a l'esquerra.

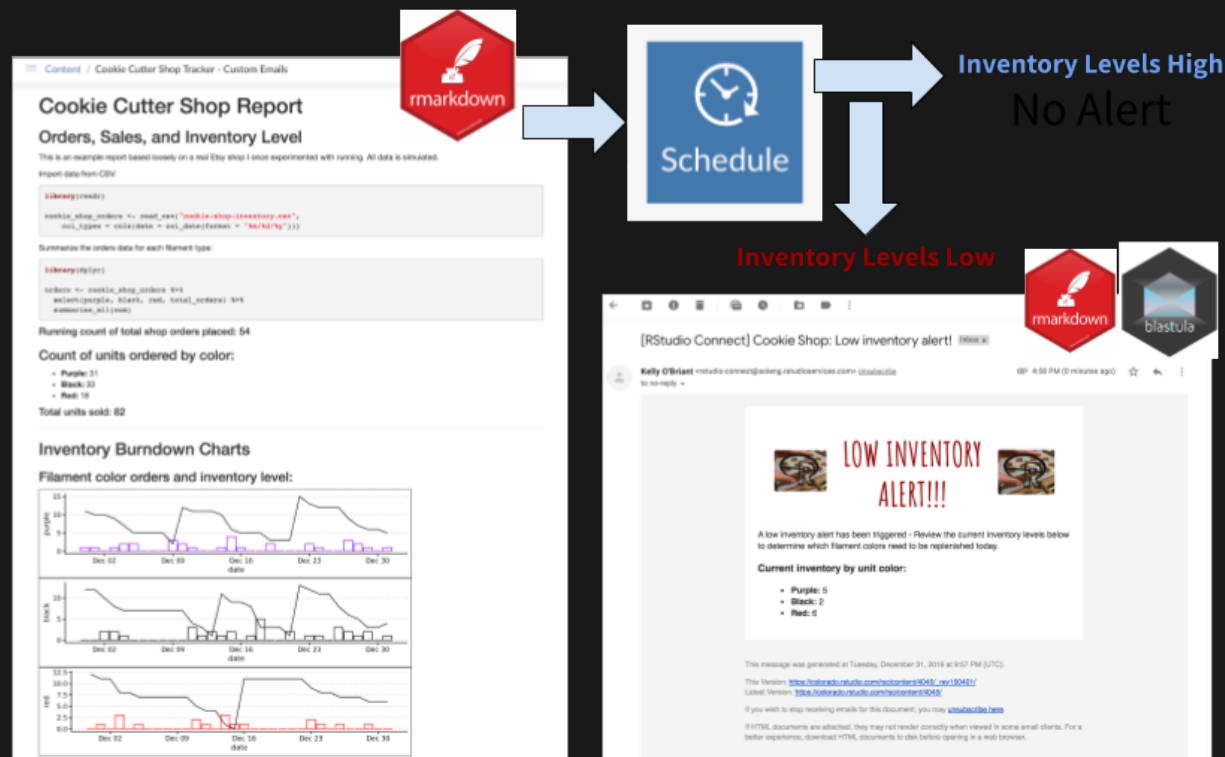# Taula de continguts de la mini-xerrada

- 3. Alternatives
- 4. Gràcies

1. Cas d'ús

Enviar correus des de la xarxa informàtica de la Generalitat de Catalunya (servidors amb outlook i office365), via scripting quan es compleixen unes condicions del negoci basades en dades.

1.1. Exemple: posada a punt

Codi a Gitlab GenCat:
https://git.intranet.gencat.cat/ceb/informes-en-r[5]

Cal escollir un sistema d'enviarment de correus, entre les opcions:

- create_smtp_creds_key()
- create_smtp_creds_file()

amb els paràmetres:

```
create_smtp_creds_*(  id,
  user = NULL,
  provider = NULL,
  host = NULL,
  port = NULL,
  use_ssl = NULL,
  overwrite = FALSE
)
```

1.2. Crea clau smtp en configuració de sistema via nom proveïdor

```
# Creo la clau d'enviament de correus (i en windows) una vegada només
create_smtp_creds_key(
  id="foo_ceb",
  user = "foo@gencat.cat",
  provider = "office365",
  overwrite = FALSE
)
# The system key store has been updated with the "blastula-v1-foo_ceb" key with the `id` value "foo_ceb".
# * Use the `view_credential_keys()` function to see all available keys
# * You can use this key within `smtp_send()` with `credentials = creds_key("foo_ceb")`
```

1.3. Preparar objectes: gràfics ggplot2

```r
p <- ggplot(mtcars, aes(x=wt, y=mpg, color=cyl, size=cyl)) +
     geom_point() +
     theme(legend.position="none")

p1 <- ggExtra::ggMarginal(p, type="histogram")

my_ggplot <- blastula::add_ggplot( p1 , width=5)
```

1.4. Preparar objectes: imatges

```r
my_image <- blastula::add_image(file = system.file("img", "Rlogo.png", package="png"), width = 200)
```

1.5. Preparar objectes: taules

```r
my_table_gt <- starwars %>% head() %>% gt() %>%
  data_color(
    columns = birth_year,
    colors = scales::col_numeric(palette = "Blues", domain = range(0,800))
  ) %>% as_raw_html()
```

1.6. Composar el missatge - opció 1: compose_email()

Opció 1: `compose_email(body=..., footer=...)`

```r
correu_alerta1 <- blastula::compose_email(
    body = md(glue::glue(
"Benvolgut/da, acció requerida!:

Gràfic:
{my_ggplot}
Imatge:
{my_image}
Taula heatmap:
{my_table_gt}
")),
    footer = md(glue::glue("Correu enviat el {Sys.time()}."))
  )
```

1.7. Composar el missatge - opció 2: render_email()

Opció 2: `render_email(input=".Rmd")`

```
correu_alerta2 <- blastula::render_email(input = "Plantilla 2.Rmd")
```

1.8. Afegir adjunts (pdf, htmlwidgets, ...)

```r
correu_alerta1 <- correu_alerta1 %>%
  add_attachment(file = system.file('img', 'pexels-photo-267151.jpeg',package='blastula') ) %>% # Imatge via adjunt
  add_attachment(file = system.file('examples', 'austin_home_sales.csv',package='blastula') ) %>% # CSV
  add_attachment(file = system.file('doc', 'DT.html',package='DT') ) %>%# html autocontingut
  add_attachment(file = system.file('legacy', 'examples', 'choropleth', 'Rplots.pdf',package='leaflet') ) # pdf
```

1.9. Enviar el correu

```r
# L'adreça "from" ha de ser real i existir al correu de gencat.cat, i ha de coincidir amb l'usuari que ha creat el seu
"creds_key()" amb les seves credencials
correu_alerta1 |>
  blastula::smtp_send(
    to = "direccio@lameva.aapp.cat",
    cc = "jo@lameva.aapp.cat",
    from = "automatitzacions@lameva.aapp.cat",
    subject = "Reviseu Canvis - Informe setmanal",
    credentials = creds_key("foo_ceb")
    )
```

2. Resultats

Exemple d'arxiu de codi R Markdown amb tot junt:

Blastula GenCat.Rmd (Link[6])

3. Alternatives

Paquet d'R vius	
Paquet	Versió
blastula	0.3.3
cleanrmd	0.1.0
emayili	0.7.13
juicyjuice	0.1.0
mailmerge	0.2.5
mailR	0.8 A

Títol
Easily Send HTML Email Messages
Clean Class-Less 'R Markdown' HTML Documents
Send Email Messages
Inline CSS Properties into HTML Tags Using 'juice'
Mail Merge Using R Markdown Documents and 'gmailr'
Utility to Send Emails from R

Descripció

Compose and send out responsive HTML email messages that render perfectly across a range of email clients and device sizes. Helper functions let the user insert embedded images, web link buttons, and 'ggplot2' plot objects into the message body. Messages can be sent through an 'SMTP' server, through the 'RStudio Connect' service, or through the 'Mailgun' API service .

A collection of clean 'R Markdown' HTML document templates using classy-looking classless CSS styles. These documents use a minimal set of dependencies but still look great, making them suitable for use a package vignettes or for sharing results via email.

A light, simple tool for sending emails with minimal dependencies.

There are occasions where you need a piece of HTML with integrated styles. A prime example of this is HTML email. This transformation involves moving the CSS and associated formatting instructions from the style block in the head of your document into the body of the HTML. Many prominent email clients require integrated styles in HTML email; otherwise a received HTML email will be displayed without any styling. This package will quickly and precisely perform these CSS transformations when given HTML text and it does so by using the JavaScript 'juice' library.

Perform a mail merge (mass email) using the message defined in markdown, the recipients in a 'csv' file, and gmail as the mailing engine. With this package you can parse markdown documents as the body of email, and the 'yaml' header to specify the subject line of the email. Any '{}' braces in the email will be encoded with 'glue::glue()'. You can preview the email in the RStudio viewer pane, and send (draft) email using 'gmailr'.

Interface to Apache Commons Email to send emails from R.

Last release (at 2023-02)	License
2023-01-07	MIT + file LICENSE
2022-06-14	MIT + file LICENSE
2022-11-27	GPL-3
2022-11-10	MIT + file LICENSE
2022-08-14	MIT + file LICENSE
2021-12-03	GPL-3

URL
url[7]
url[8]
url[9]
url[10]
url[11]
url[12]

Microsoft365R	2.3.4
sendgridr	0.6.1
sendmailR	1.4-0

Interface to the 'Microsoft 365' Suite of Cloud Services

Mail Sender Using 'Sendgrid' Service

Send Email Using R

An interface to the 'Microsoft 365' (formerly known as 'Office 365') suite of cloud services, building on the framework supplied by the 'AzureGraph' package. Enables access from R to data stored in 'Teams', 'SharePoint Online' and 'OneDrive', including the ability to list drive folder contents, upload and download files, send messages, and retrieve data lists. Also provides a full-featured 'Outlook' email client, with the ability to send emails and manage emails and mail folders.

Send email using 'Sendgrid' mail API(v3) . The goal of sendgridr is to mail using r with sendgrid service that provides free 100 mail per day forever.

Package contains a simple SMTP client with minimal dependencies which provides a portable solution for sending email, including file attachments and inline html reports, from within R. SMTP Authentication and SSL/STARTTLS is implemented using curl.

2022-03-16	MIT + file LICENSE
2022-11-06	MIT + file LICENSE
2023-01-12	GPL-2

url[13]

url[14]

url[15]

4. Gràcies

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https://aca.gencat.cat/ca/inici

https://www.edubcn.cat/ca

https://seeds4c.org/BlastulaGencat

https://rstudio.github.io/blastula

https://git.intranet.gencat.cat/ceb/informes-en-r

https://seeds4c.org/tiki-download_file.php?fileId=977

https://github.com/rstudio/blastula

https://github.com/gadenbuie/cleanrmd

https://datawookie.github.io/emayili/

https://github.com/rstudio/juicyjuice

https://cran.r-project.org/web/packages/mailmerge/vignettes/introduction.html

https://github.com/rpremrajGit/mailR

https://github.com/Azure/Microsoft365R

https://mrchypark.github.io/sendgridr/

https://github.com/olafmersmann/sendmailR

https://seeds4c.org/BlastulaGencat

https://rstudio.github.io/blasstula

http://creativecommons.org/licenses/by-sa/3.0/

http://creativecommons.org/licenses/by-sa/3.0/