

Practica_2

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R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see <http://rmarkdown.rstudio.com>.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

PREGUNTA 1.1

```
#install.packages("httr")  
#install.packages("XML")  
#install.packages("ggpubr")
```

```
library(httr)  
library(XML)  
library(ggplot2)  
library(ggpubr)
```

```
url <- "https://www.mediawiki.org/wiki/MediaWiki"
```

```
page <- GET(url)
```

```
status_code(page)
```

```
## [1] 200
```

```
parsed_page <- htmlParse(content(page, as = "text"))
```

PREGUNTA 1.2

```
title <- xpathSApply(parsed_page, "//title", xmlValue)
```

```
stylesheets <- xpathSApply(parsed_page, "//link[@rel='stylesheet']/@href")
```

```
author <- xpathSApply(parsed_page, "//meta[@name='author']/@content")
```

```
description <- xpathSApply(parsed_page, "//meta[@name='description']/@content")
```

```
encoding <- xpathSApply(parsed_page, "//meta[@charset]/@charset")
```

```
keywords <- xpathSApply(parsed_page, "//meta[@name='keywords']/@content")
```

PREGUNTA 1.3

```
links_text <- xpathSApply(parsed_page, "//a", xmlValue)
```

```
links_url <- xpathSApply(parsed_page, "//a", xmlGetAttr, 'href')
```

PREGUNTA 1.4 & 1.5

```
tabla <- data.frame(links_text = character(),
                   links_original_url = character(),
                   links_url = character(),
                   links_relative = character(),
                   links_internal = character(),
                   repeticiones = numeric(),
                   scraps = character(),
                   stringsAsFactors = FALSE)

frecuencia <- table(links_url)

for (i in 1:length(links_text)) {
  Sys.sleep(2)
  print("round done")
  tabla[i, "links_text"] <- links_text[i]
  tabla[i, "links_original_url"] <- links_url[i]
  tabla[i, "links_url"] <- links_url[i]
  tabla[i, "links_relative"] <- "N"
  tabla[i, "links_internal"] <- "S"
  tabla[i, "repeticiones"] <- frecuencia[links_url[i]]

  #si inicia con /wiki/
  validation_wiki <- startsWith(links_url[i], "/wiki/")
  if(validation_wiki) {
    tabla[i, "links_url"] <- paste0("https://www.mediawiki.org", links_url[i])
    tabla[i, "links_relative"] <- "S"
  }
}
```

```

#si inicia con /https/
validation_https <- startsWith(links_url[i], "https:")
if(validation_https) {
  tabla[i, "links_url"] <- links_url[i]
  validation_internal <- startsWith(links_url[i], "https://www.mediawiki.org")
  if(!validation_internal) {
    tabla[i, "links_internal"] <- "N"
  }
}

#si inicia con //
validation_slash <- startsWith(links_url[i], "//")
if(validation_slash) {
  tabla[i, "links_url"] <- paste0("https:", links_url[i])
  tabla[i, "links_relative"] <- "S"
}

#si inicia con /w/
validation_w <- startsWith(links_url[i], "/w/")
if(validation_w) {
  tabla[i, "links_url"] <- paste0("https://www.mediawiki.org", links_url[i])
  tabla[i, "links_relative"] <- "S"
}

#si inicia con /#/
validation_hash <- startsWith(links_url[i], "#")
if(validation_hash) {
  tabla[i, "links_url"] <- paste0("https://www.mediawiki.org/wiki/MediaWiki", links_url[i])
  tabla[i, "links_relative"] <- "S"
}

print(paste0("TEST> " , links_url[i]))

#obtencion de STATUS CODE
code <- status_code(HEAD(tabla[i, "links_url"]))
tabla[i, "scraps"] <- code
print(code)
}

```

```

## [1] "round done"
## [1] "TEST> #bodyContent"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Download"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Category:Extensions"
## [1] 200
## [1] "round done"
## [1] "TEST> //techblog.wikimedia.org/"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/How_to_contribute"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Help:Contents"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:FAQ"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:Contents"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:Support_desk"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Communication"
## [1] 200
## [1] "round done"
## [1] "TEST> https://developer.wikimedia.org/"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Development_statistics"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:Help"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:RecentChanges"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:LanguageStats"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:Random"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:Village_Pump"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:Sandbox"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:Search"
## [1] 200
## [1] "round done"
## [1] "TEST> #"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:CreateAccount&returnto=MediaWiki"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:UserLogin&returnto=MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:CreateAccount&returnto=MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:UserLogin&returnto=MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Help:Introduction"
## [1] 404
## [1] "round done"
## [1] "TEST> /wiki/Special:MyContributions"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyTalk"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Talk:MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&action=edit"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&action=history"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&action=edit"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&action=history"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:WhatLinksHere/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:RecentChangesLinked/MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> //commons.wikimedia.org/wiki/Special:UploadWizard"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:SpecialPages"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&oldid=3878227"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&action=info"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:CiteThisPage&page=MediaWiki&id=3878227&wpFormIdentifier=titlef
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.wikidata.org/wiki/Special:EntityPage/Q5296"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:Book&bookcmd=book_creator&referer=MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=Special:DownloadAsPdf&page=MediaWiki&action=show-download-screen"
## [1] 200
## [1] "round done"
## [1] "TEST> /w/index.php?title=MediaWiki&printable=yes"
## [1] 200
## [1] "round done"
## [1] "TEST> https://commons.wikimedia.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://meta.wikimedia.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://wikisource.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://species.wikimedia.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikibooks.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.wikidata.org/wiki/Wikidata:Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://wikimania.wikimedia.org/wiki/Wikimania"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikinews.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikipedia.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikiquote.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikisource.org/wiki/Main_Page"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikiversity.org/wiki/Wikiversity:Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikivoyage.org/wiki/Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wiktionary.org/wiki/Wiktionary:Main_Page"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/File:Wikimedia_Hackathon_Prague_2019_-_Group_Photo_-_CLK_-_cropped.jpg"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Sites_using_MediaWiki"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/MediaWiki_testimonials"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Localisation"
## [1] 200
## [1] "round done"
## [1] "TEST> https://en.wikipedia.org/wiki/FLOSS"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:What_is_MediaWiki%3F"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:Deciding_whether_to_use_a_wiki_as_your_website_type"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Download"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:Installation_guide"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:System_administration"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:Extensions"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:Errors_and_symptoms"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Manual:FAQ"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Hosting_services"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Professional_development_and_consulting"

```

```
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Professional_development_and_consulting"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/MediaWiki_Stakeholders%27_Group"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Help:Navigation"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Help:Navigation"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Help:Editing_pages"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Help:Editing_pages"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Help:Contents"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Help:Contents"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Developer_hub"
## [1] 200
## [1] "round done"
## [1] "TEST> https://developer.wikimedia.org"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:Support_desk"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/How_to_contribute"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/How_to_report_a_bug"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/How_to_report_a_bug"
## [1] 200
## [1] "round done"
## [1] "TEST> https://lists.wikimedia.org/hyperkitty/list/mediawiki-announce@lists.wikimedia.org/message/5233"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/EMWCon_Spring_2023"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.youtube.com/watch?v=r0xEhy9bBFU"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Wikimedia_Hackathon_2023"
```



```

## [1] 200
## [1] "round done"
## [1] "TEST> https://wikis.world/@mediawiki"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Special:MyLanguage/News"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Special:MyLanguage/Project:Language_policy"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:Language_policy"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Template:Main_page"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/af"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ar"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ast"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/be"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/be-tarask"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/bg"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/bn"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/bs"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ca"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ckb"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/cs"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/da"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/de"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/es"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/fa"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/fi"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/fr"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/gu"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/he"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/hi"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/hr"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/hu"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/hy"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/id"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/it"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ja"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/jv"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/kk"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ko"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ms"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/mwl"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/nl"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/pl"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/pt"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/pt-br"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ro"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/ru"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/sc"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/si"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/sk"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/sl"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/so"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/sq"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/sr"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/sv"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/th"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/tr"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/uk"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/vi"

```

```

## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/yue"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Template:Main_page/zh"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/w/index.php?title=MediaWiki&oldid=3878227"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Category:Languages_pages"
## [1] 200
## [1] "round done"
## [1] "TEST> https://creativecommons.org/licenses/by-sa/3.0/"
## [1] 200
## [1] "round done"
## [1] "TEST> https://foundation.wikimedia.org/wiki/Special:MyLanguage/Policy:Terms_of_Use"
## [1] 200
## [1] "round done"
## [1] "TEST> https://foundation.wikimedia.org/wiki/Privacy_policy"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:About"
## [1] 200
## [1] "round done"
## [1] "TEST> /wiki/Project:General_disclaimer"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/wiki/Special:MyLanguage/Code_of_Conduct"
## [1] 200
## [1] "round done"
## [1] "TEST> //m.mediawiki.org/w/index.php?title=MediaWiki&mobileaction=toggle_view_mobile"
## [1] 200
## [1] "round done"
## [1] "TEST> https://developer.wikimedia.org"
## [1] 200
## [1] "round done"
## [1] "TEST> https://stats.wikimedia.org/#/www.mediawiki.org"
## [1] 200
## [1] "round done"
## [1] "TEST> https://foundation.wikimedia.org/wiki/Cookie_statement"
## [1] 200
## [1] "round done"
## [1] "TEST> https://wikimediafoundation.org/"
## [1] 200
## [1] "round done"
## [1] "TEST> https://www.mediawiki.org/"
## [1] 200

```

#PREGUNTA 2.1 y 2.2

```

relative <- c(1, 2, 3, 4, 5, 4, 3, 2, 1)
no_relative <- c(2, 4, 6, 8, 10, 8, 6, 4, 2)

tabla2 <- tabla[tabla$links_relative == "S", c("repeticiones")]
tabla3 <- tabla[tabla$links_relative == "N", c("repeticiones")]
tabla6 <- tabla[TRUE, c("links_internal")]
tabla7 <- as.numeric(tabla[TRUE, c("scraps")])
tabla7 <- (tabla[TRUE, c("scraps")])

# Crear datos
relative <- tabla2
no_relative <- tabla3

# Crear el primer histograma
p1 <- ggplot(data.frame(x=relative), aes(x=x)) +
  geom_histogram(aes(y=..count..), fill="blue", alpha=0.5) +
  labs(title="Histograma de relative", x="Valores", y="Frecuencia")

# Crear el segundo histograma
p2 <- ggplot(data.frame(x=no_relative), aes(x=x)) +
  geom_histogram(aes(y=..count..), fill="red", alpha=0.5) +
  labs(title="Histograma de no-relative", x="Valores", y="Frecuencia")

# Tercer histograma
factor_tabla6 <- factor(tabla6, levels = c("S", "N"))

# Crear un data frame con la columna "x"
data <- data.frame(x = factor_tabla6)

# Crear el histograma
p3 <- ggplot(data, aes(x = x)) +
  geom_bar(aes(y=..count../sum(..count..), fill="blue", alpha=0.5, stat = "count") +
  labs(title="Histograma de tabla6", x="Valores", y="Frecuencia")

# Ajustar la apariencia de los gráficos (opcional)
theme_set(theme_classic())

# Acomodar los gráficos en dos filas y una columna usando ggarrange()
ggarrange(p1, p2, p3, ncol=1, heights=c(1,1,1.2))

```

```

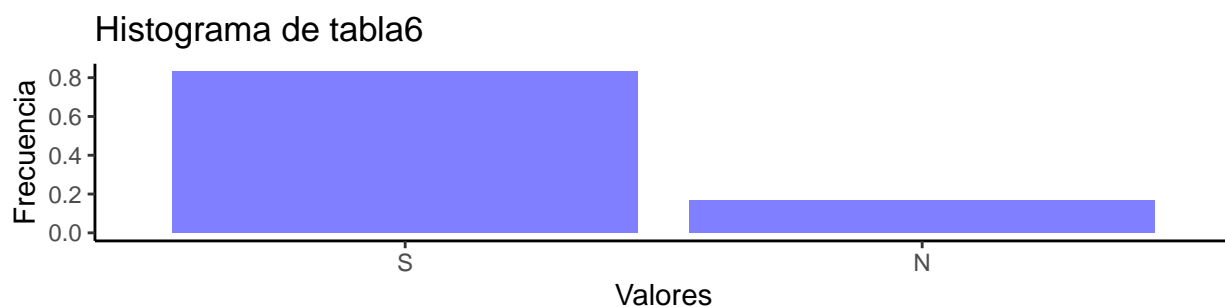
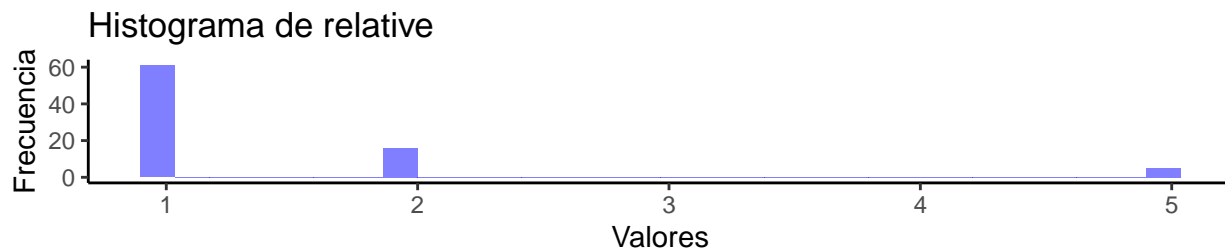
## Warning: The dot-dot notation ('..count..') was deprecated in ggplot2 3.4.0.
## i Please use 'after_stat(count)' instead.
## This warning is displayed once every 8 hours.
## Call 'lifecycle::last_lifecycle_warnings()' to see where this warning was
## generated.

```

```

## 'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.
## 'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.

```



#PREGUNTA 2.3

```
# Crear datos
relative <- tabla2
no_relative <- tabla3

# Crear el primer histograma
p1 <- ggplot(data.frame(x=relative), aes(x=x)) +
  geom_histogram(aes(y=..count..), fill="blue", alpha=0.5) +
  labs(title="Histograma de relative", x="Valores", y="Frecuencia")

# Crear el segundo histograma
p2 <- ggplot(data.frame(x=no_relative), aes(x=x)) +
  geom_histogram(aes(y=..count..), fill="red", alpha=0.5) +
  labs(title="Histograma de no-relative", x="Valores", y="Frecuencia")

# Tercer histograma
factor_tabla6 <- factor(tabla6, levels = c("S", "N"))

# Crear un data frame con la columna "x"
data <- data.frame(x = factor_tabla6)

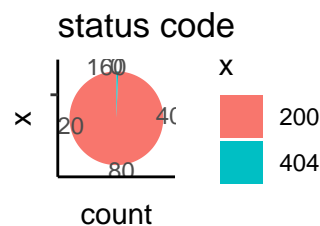
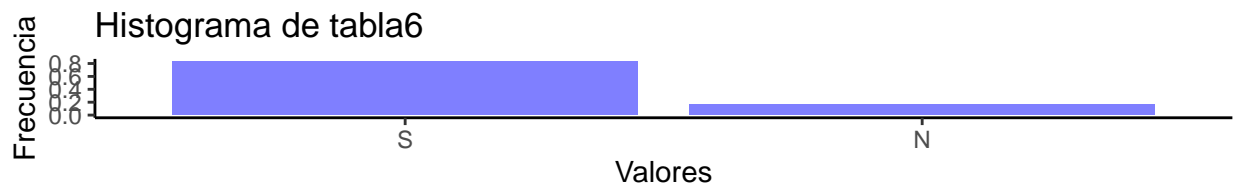
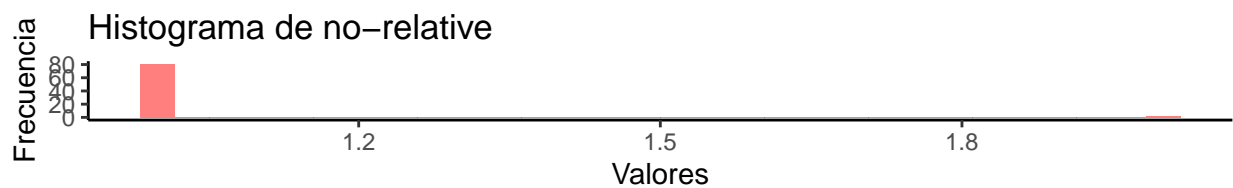
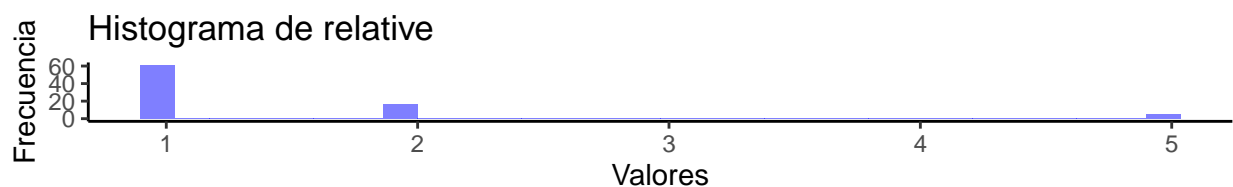
# Crear el histograma
p3 <- ggplot(data, aes(x = x)) +
  geom_bar(aes(y=..count../sum(..count..)), fill="blue", alpha=0.5, stat = "count") +
  labs(title="Histograma de tabla6", x="Valores", y="Frecuencia")
```

```
p4 <- ggplot(data.frame(x=tabla7), aes(x= "", fill = x)) +
  geom_bar(width = 1) + coord_polar(theta = "y") +
  labs(title="status code")

# Ajustar la apariencia de los gráficos (opcional)
theme_set(theme_classic())

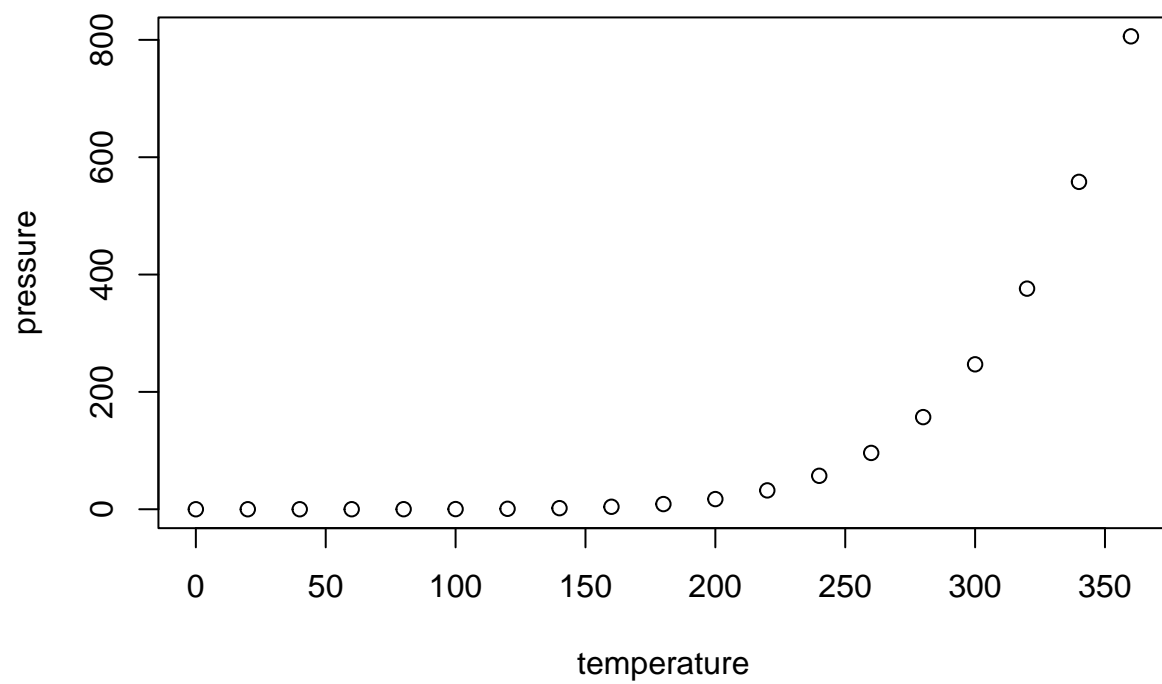
# Acomodar los gráficos en dos filas y una columna usando ggarrange()
ggarrange(p1, p2, p3, p4, ncol=1, heights=c(1,1,1,1.2))
```

```
## 'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.
## 'stat_bin()' using 'bins = 30'. Pick better value with 'binwidth'.
```



Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.