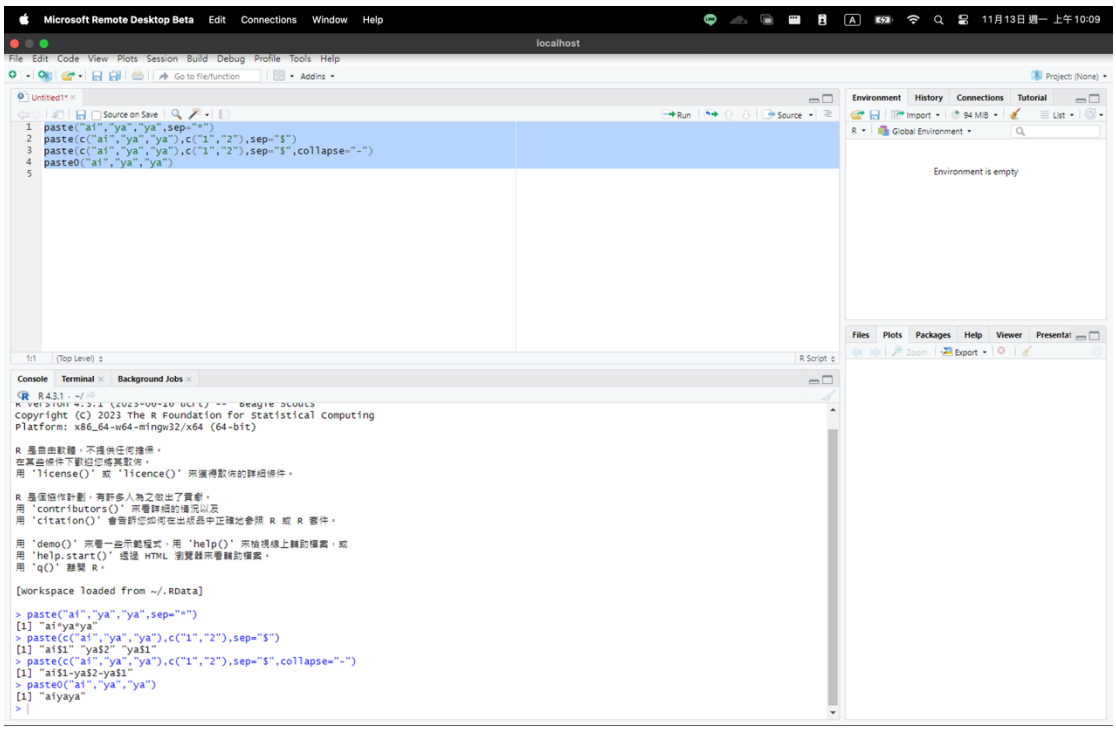
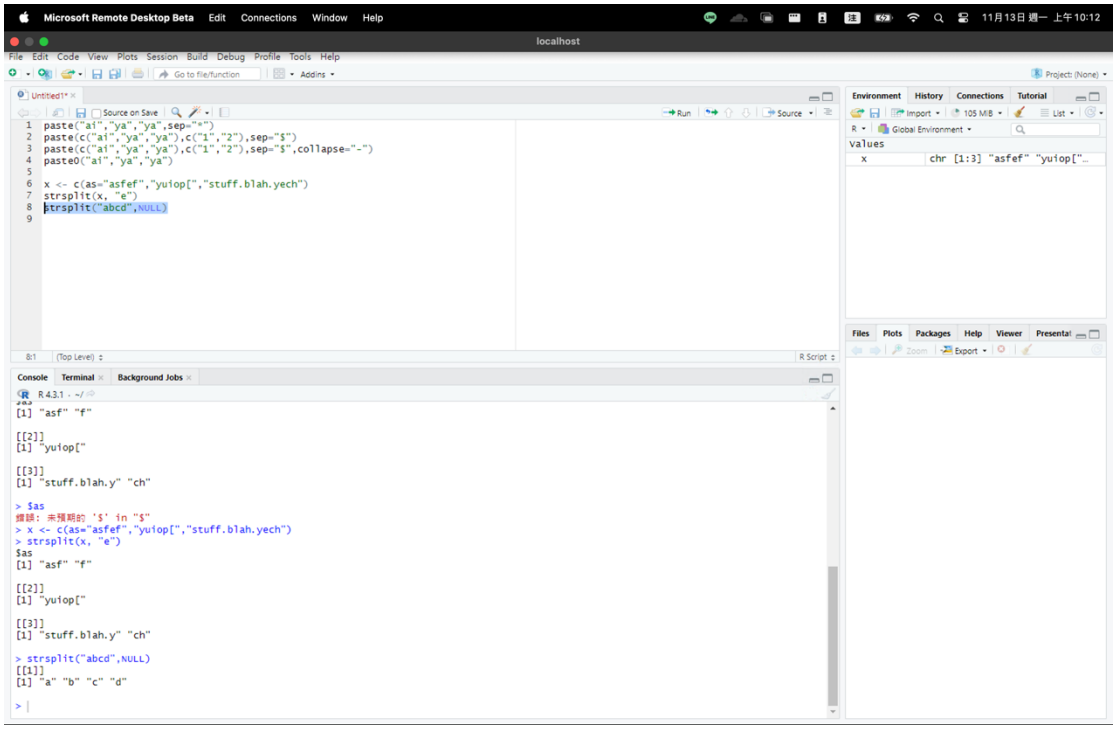
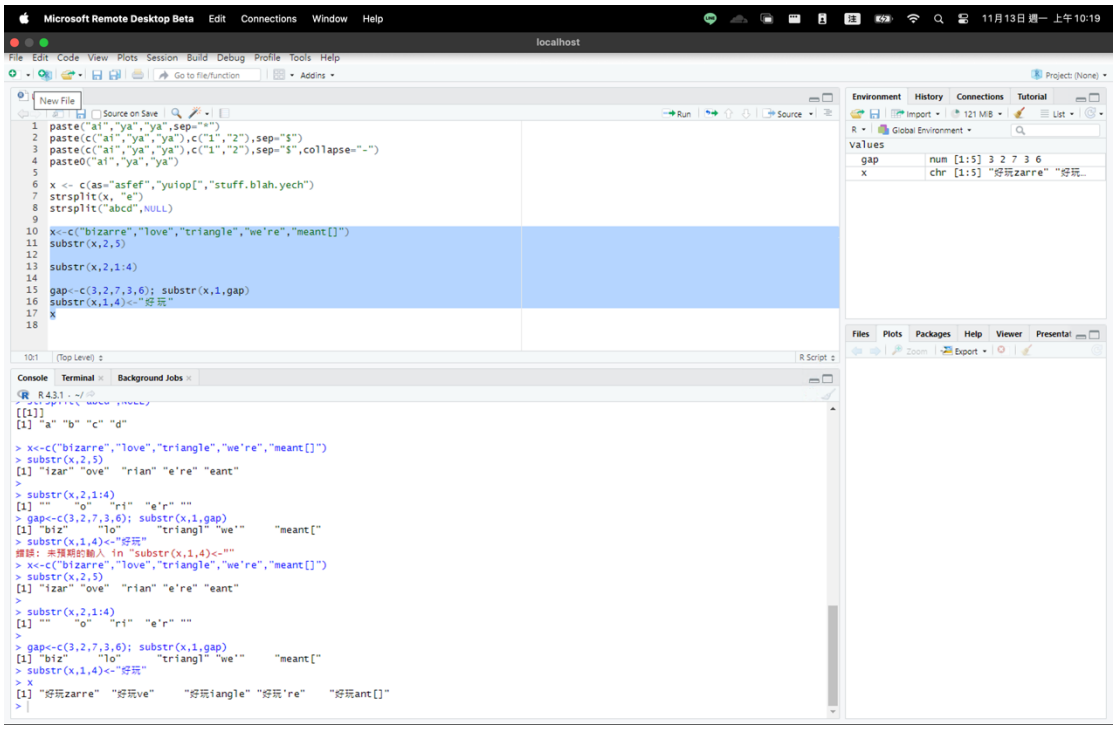
字串合併


Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日週一 上午10:09
localhost
paste("ai","ya","ya",sep="*")
paste(c("ai","ya","ya"),c("1","2"),sep="$")
paste(c("ai","ya","ya"),c("1","2"),sep="$",collapse="-")
paste0("ai","ya","ya")
Environment is empty
Copyright (C) 2023 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)
[workspace loaded from ~/.RData]
> paste("ai","ya","ya",sep="*")
[1] "ai*ya*ya"
> paste(c("ai","ya","ya"),c("1","2"),sep="$")
[1] "ai$1" "ya$2" "ya$1"
> paste(c("ai","ya","ya"),c("1","2"),sep="$",collapse="-")
[1] "ai$1-ya$2-ya$1"
> paste0("ai","ya","ya")
[1] "aiyaya"

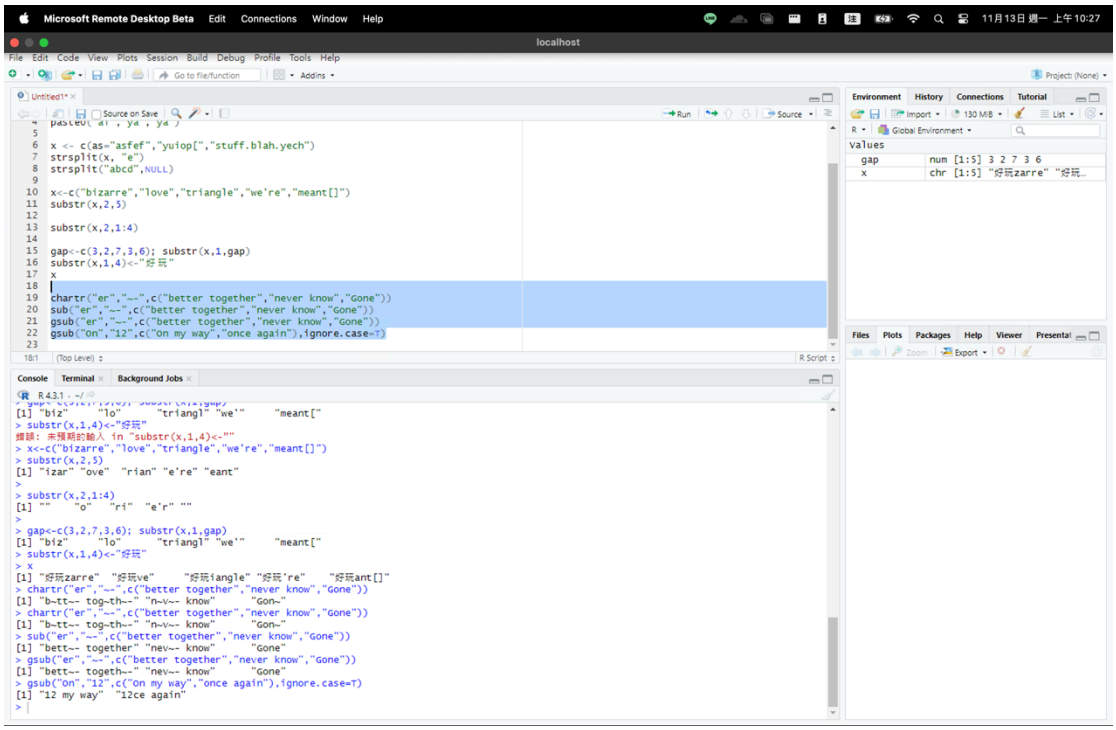
字串分割


Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日週一 上午10:12
localhost
paste("ai","ya","ya",sep="*")
paste(c("ai","ya","ya"),c("1","2"),sep="$")
paste(c("ai","ya","ya"),c("1","2"),sep="$",collapse="-")
paste0("ai","ya","ya")
x <- c(as="asfef","yuiop[","stuff.blah.yech")
strsplit(x, "e")
strsplit("abcd",NULL)
Values
x chr [1:3] "asfef" "yuiop["...
[1] "asf" "f"
[2]]
[1] "yuiop["
[3]]
[1] "stuff.blah.y" "ch"
> $as
錯誤: 未預期的 '$' in "$"
> x <- c(as="asfef","yuiop[","stuff.blah.yech")
> strsplit(x, "e")
$as
[1] "asf" "f"
[2]]
[1] "yuiop["
[3]]
[1] "stuff.blah.y" "ch"
> strsplit("abcd",NULL)
[[1]]
[1] "a" "b" "c" "d"

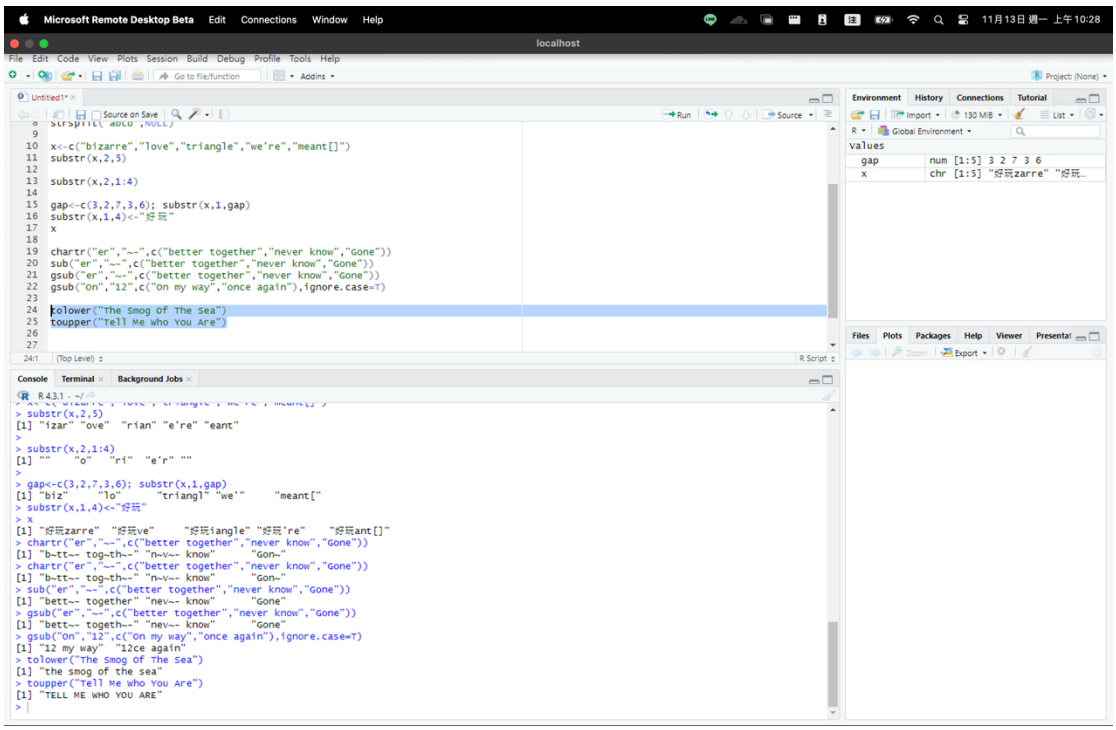
字串抽取


Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日 週一 上午10:19
localhost
paste("ai","ya","ya",sep="*")
paste(c("ai","ya","ya"),c("1","2"),sep="$")
paste(c("ai","ya","ya"),c("1","2"),sep="$",collapse="-")
paste0("ai","ya","ya")
x <- c(as="asfef","yuiop[","stuff.blah.yech")
strsplit(x, "e")
strsplit("abcd",NULL)
x<-c("bizarre","love","triangle","we're","meant[]")
substr(x,2,5)
substr(x,2,1:4)
gap<-c(3,2,7,3,6); substr(x,1,gap)
substr(x,1,4)<-"好玩"
x
[[1]]
[1] "a" "b" "c" "d"
> x<-c("bizarre","love","triangle","we're","meant[]")
> substr(x,2,5)
[1] "izar" "ove" "rian" "e're" "eant"
> substr(x,2,1:4)
[1] "" "o" "ri" "e'r" ""
> gap<-c(3,2,7,3,6); substr(x,1,gap)
[1] "biz" "lo" "triangl" "we'" "meant["
> substr(x,1,4)<-"好玩"
錯誤: 未預期的輸入 in "substr(x,1,4)<-""
> x<-c("bizarre","love","triangle","we're","meant[]")
> substr(x,2,5)
[1] "izar" "ove" "rian" "e're" "eant"
> substr(x,2,1:4)
[1] "" "o" "ri" "e'r" ""
> gap<-c(3,2,7,3,6); substr(x,1,gap)
[1] "biz" "lo" "triangl" "we'" "meant["
> substr(x,1,4)<-"好玩"
> x
[1] "好玩zarre" "好玩ve" "好玩iangle" "好玩're" "好玩ant[]"

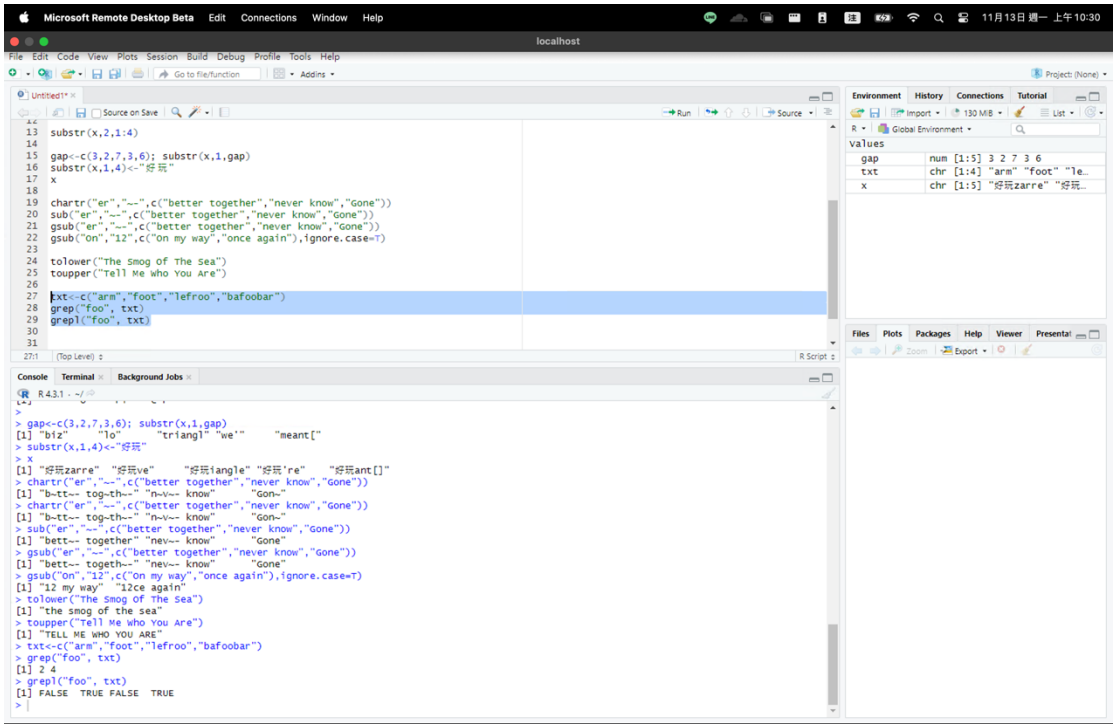
字串替換


Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日 週一 上午10:27
localhost
x <- c(as="asfef","yuiop[","stuff.blah.yech")
strsplit(x, "e")
strsplit("abcd",NULL)
x<-c("bizarre","love","triangle","we're","meant[]")
substr(x,2,5)
substr(x,2,1:4)
gap<-c(3,2,7,3,6); substr(x,1,gap)
substr(x,1,4)<-"好玩"
x
chartr("er","~~",c("better together","never know","Gone"))
sub("er","~~",c("better together","never know","Gone"))
gsub("er","~~",c("better together","never know","Gone"))
gsub("On","12",c("On my way","once again"),ignore.case=T)
[1] "biz" "lo" "triangl" "we'" "meant["
> substr(x,1,4)<-"好玩"
錯誤: 未預期的輸入 in "substr(x,1,4)<-""
> x<-c("bizarre","love","triangle","we're","meant[]")
> substr(x,2,5)
[1] "izar" "ove" "rian" "e're" "eant"
> substr(x,2,1:4)
[1] "" "o" "ri" "e'r" ""
> gap<-c(3,2,7,3,6); substr(x,1,gap)
[1] "biz" "lo" "triangl" "we'" "meant["
> substr(x,1,4)<-"好玩"
> x
[1] "好玩zarre" "好玩ve" "好玩iangle" "好玩're" "好玩ant[]"
> chartr("er","~~",c("better together","never know","Gone"))
[1] "b~tt~~ tog~th~~" "n~v~~ know" "Gon~"
> chartr("er","~~",c("better together","never know","Gone"))
[1] "b~tt~~ tog~th~~" "n~v~~ know" "Gon~"
> sub("er","~~",c("better together","never know","Gone"))
[1] "bett~~ together" "nev~~ know" "Gone"
> gsub("er","~~",c("better together","never know","Gone"))
[1] "bett~~ togeth~~" "nev~~ know" "Gone"
> gsub("On","12",c("On my way","once again"),ignore.case=T)
[1] "12 my way" "12ce again"

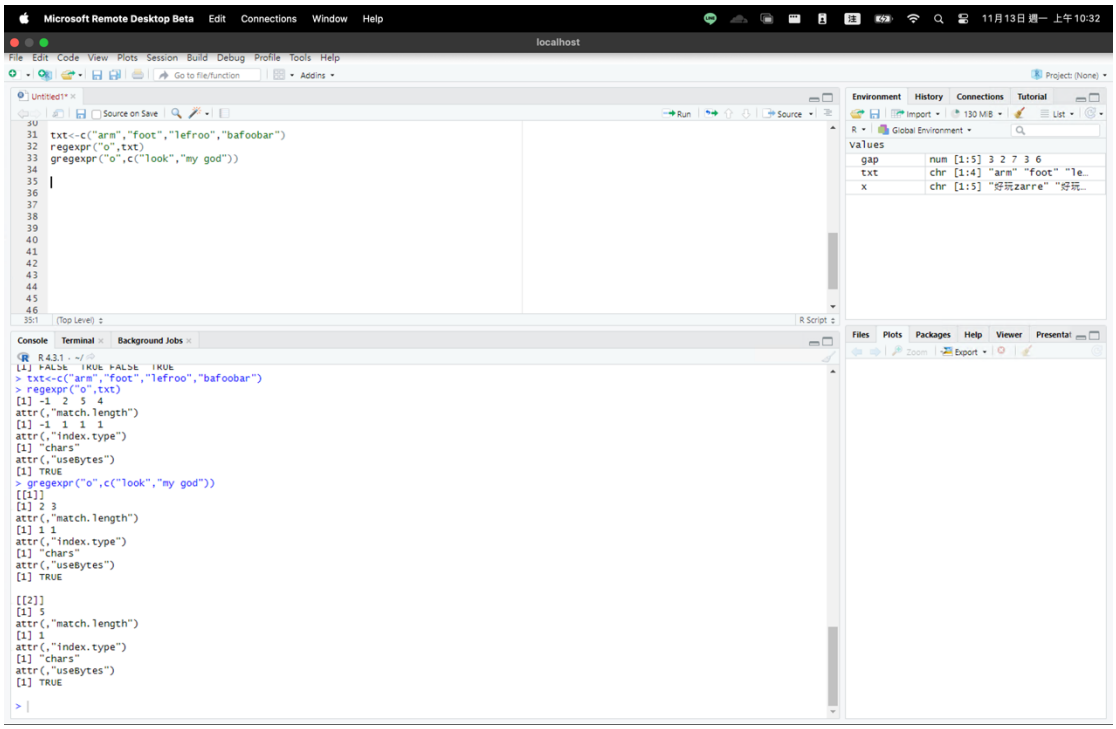
轉大小寫

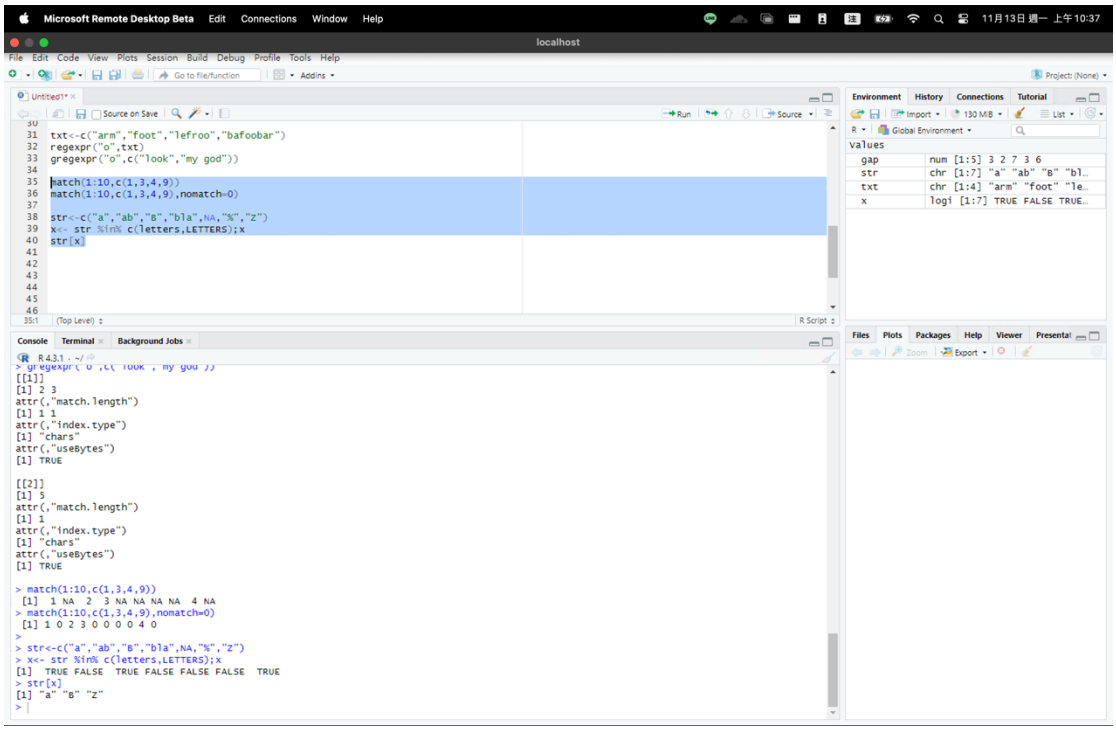

Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日 週一 上午10:28
localhost
File Edit Code View Plots Session Build Debug Profile Tools Help
Untitled1*
Source on Save
Run Source
Environment History Connections Tutorial
Import 130 MiB List
Global Environment
Values
gap num [1:5] 3 2 7 3 6
x chr [1:5] "好玩zarre" "好玩...
Files Plots Packages Help Viewer Presenta
Export
Console Terminal Background Jobs
R 4.3.1 · ~/
10 x<-c("bizarre","love","triangle","we're","meant[]")
11 substr(x,2,5)
13 substr(x,2,1:4)
15 gap<-c(3,2,7,3,6); substr(x,1,gap)
16 substr(x,1,4)<-"好玩"
17 x
19 chartr("er","~~",c("better together","never know","Gone"))
20 sub("er","~~",c("better together","never know","Gone"))
21 gsub("er","~~",c("better together","never know","Gone"))
22 gsub("On","12",c("On my way","once again"),ignore.case=T)
24 tolower("The Smog Of The Sea")
25 toupper("Tell Me Who You Are")
24:1 (Top Level) R Script
> substr(x,2,5)
[1] "izar" "ove" "rian" "e're" "eant"
> substr(x,2,1:4)
[1] "" "o" "ri" "e'r" ""
> gap<-c(3,2,7,3,6); substr(x,1,gap)
[1] "biz" "lo" "triangl" "we'" "meant["
> substr(x,1,4)<-"好玩"
> x
[1] "好玩zarre" "好玩ve" "好玩iangle" "好玩're" "好玩ant[]"
> chartr("er","~~",c("better together","never know","Gone"))
[1] "b~tt~~ tog~th~~" "n~v~~ know" "Gon~"
> chartr("er","~~",c("better together","never know","Gone"))
[1] "b~tt~~ tog~th~~" "n~v~~ know" "Gon~"
> sub("er","~~",c("better together","never know","Gone"))
[1] "bett~~ together" "nev~~ know" "Gone"
> gsub("er","~~",c("better together","never know","Gone"))
[1] "bett~~ togeth~~" "nev~~ know" "Gone"
> gsub("On","12",c("On my way","once again"),ignore.case=T)
[1] "12 my way" "12ce again"
> tolower("The Smog Of The Sea")
[1] "the smog of the sea"
> toupper("Tell Me Who You Are")
[1] "TELL ME WHO YOU ARE"

字串搜尋

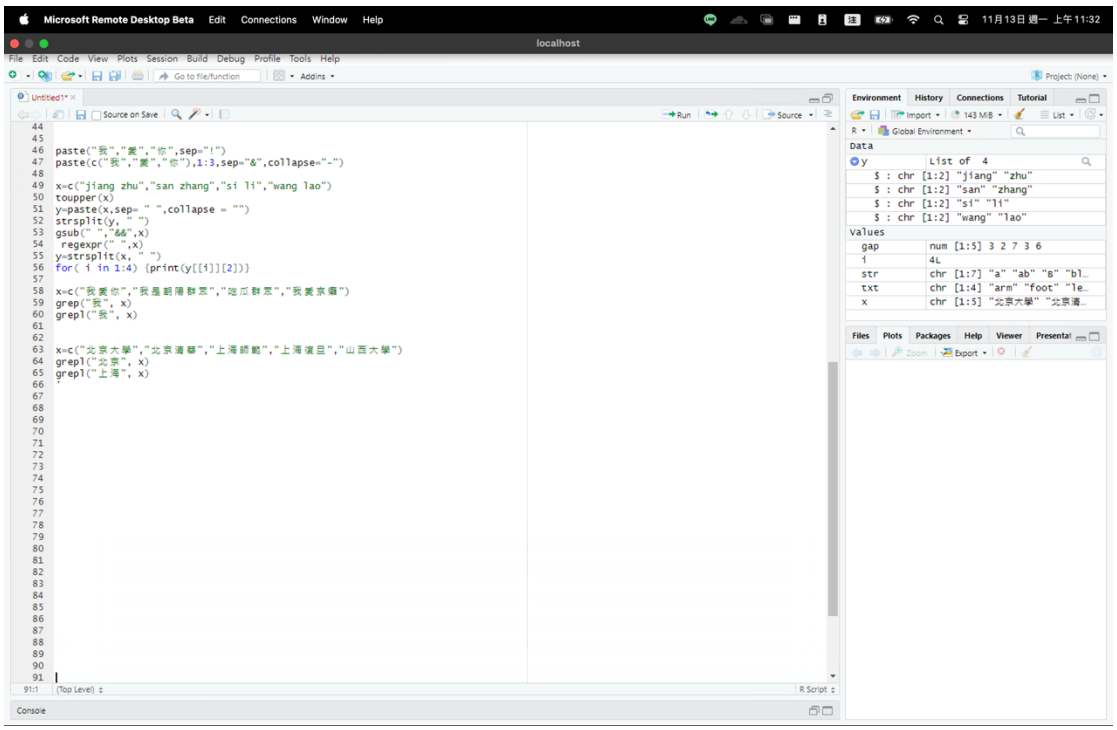

Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日 週一 上午10:30
localhost
File Edit Code View Plots Session Build Debug Profile Tools Help
Untitled1*
Source on Save
Run Source
Environment History Connections Tutorial
Import 130 MiB List
Global Environment
Values
gap num [1:5] 3 2 7 3 6
txt chr [1:4] "arm" "foot" "le...
x chr [1:5] "好玩zarre" "好玩...
Files Plots Packages Help Viewer Presenta
Export
Console Terminal Background Jobs
R 4.3.1 · ~/
13 substr(x,2,1:4)
15 gap<-c(3,2,7,3,6); substr(x,1,gap)
16 substr(x,1,4)<-"好玩"
17 x
19 chartr("er","~~",c("better together","never know","Gone"))
20 sub("er","~~",c("better together","never know","Gone"))
21 gsub("er","~~",c("better together","never know","Gone"))
22 gsub("On","12",c("On my way","once again"),ignore.case=T)
24 tolower("The Smog Of The Sea")
25 toupper("Tell Me Who You Are")
27 txt<-c("arm","foot","lefroo","bafoobar")
28 grep("foo", txt)
29 grepl("foo", txt)
27:1 (Top Level) R Script
> gap<-c(3,2,7,3,6); substr(x,1,gap)
[1] "biz" "lo" "triangl" "we'" "meant["
> substr(x,1,4)<-"好玩"
> x
[1] "好玩zarre" "好玩ve" "好玩iangle" "好玩're" "好玩ant[]"
> chartr("er","~~",c("better together","never know","Gone"))
[1] "b~tt~~ tog~th~~" "n~v~~ know" "Gon~"
> chartr("er","~~",c("better together","never know","Gone"))
[1] "b~tt~~ tog~th~~" "n~v~~ know" "Gon~"
> sub("er","~~",c("better together","never know","Gone"))
[1] "bett~~ together" "nev~~ know" "Gone"
> gsub("er","~~",c("better together","never know","Gone"))
[1] "bett~~ togeth~~" "nev~~ know" "Gone"
> gsub("On","12",c("On my way","once again"),ignore.case=T)
[1] "12 my way" "12ce again"
> tolower("The Smog Of The Sea")
[1] "the smog of the sea"
> toupper("Tell Me Who You Are")
[1] "TELL ME WHO YOU ARE"
> txt<-c("arm","foot","lefroo","bafoobar")
> grep("foo", txt)
[1] 2 4
> grepl("foo", txt)
[1] FALSE TRUE FALSE TRUE

# 字串匹配


Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日 週一 上午10:32
localhost
File Edit Code View Plots Session Build Debug Profile Tools Help
Untitled1*
Source on Save
Run
Source
Environment History Connections Tutorial
Import
130 MiB
List
Global Environment
Values
gap num [1:5] 3 2 7 3 6
txt chr [1:4] "arm" "foot" "le...
x chr [1:5] "好玩zarre" "好玩...
31 txt<-c("arm","foot","lefroo","bafoobar")
32 regexpr("o",txt)
33 gregexpr("o",c("look","my god"))
(Top Level)
R Script
Console Terminal Background Jobs
R 4.3.1 · ~/
> txt<-c("arm","foot","lefroo","bafoobar")
> regexpr("o",txt)
[1] -1 2 5 4
attr(,"match.length")
[1] -1 1 1 1
attr(,"index.type")
[1] "chars"
attr(,"useBytes")
[1] TRUE
> gregexpr("o",c("look","my god"))
[[1]]
[1] 2 3
attr(,"match.length")
[1] 1 1
attr(,"index.type")
[1] "chars"
attr(,"useBytes")
[1] TRUE
[[2]]
[1] 5
attr(,"match.length")
[1] 1
attr(,"index.type")
[1] "chars"
attr(,"useBytes")
[1] TRUE
Files Plots Packages Help Viewer Presenta
Zoom
Export


Microsoft Remote Desktop Beta Edit Connections Window Help
11月13日 週一 上午10:37
localhost
File Edit Code View Plots Session Build Debug Profile Tools Help
Untitled1*
Source on Save
Run
Source
Environment History Connections Tutorial
Import
130 MiB
List
Global Environment
Values
gap num [1:5] 3 2 7 3 6
str chr [1:7] "a" "ab" "B" "bl...
txt chr [1:4] "arm" "foot" "le...
x logi [1:7] TRUE FALSE TRUE...
31 txt<-c("arm","foot","lefroo","bafoobar")
32 regexpr("o",txt)
33 gregexpr("o",c("look","my god"))
35 match(1:10,c(1,3,4,9))
36 match(1:10,c(1,3,4,9),nomatch=0)
38 str<-c("a","ab","B","bla",NA,"%","z")
39 x<- str %in% c(letters,LETTERS);x
40 str[x]
(Top Level)
R Script
Console Terminal Background Jobs
R 4.3.1 · ~/
[[1]]
[1] 2 3
attr(,"match.length")
[1] 1 1
attr(,"index.type")
[1] "chars"
attr(,"useBytes")
[1] TRUE
[[2]]
[1] 5
attr(,"match.length")
[1] 1
attr(,"index.type")
[1] "chars"
attr(,"useBytes")
[1] TRUE
> match(1:10,c(1,3,4,9))
[1] 1 NA 2 3 NA NA NA NA 4 NA
> match(1:10,c(1,3,4,9),nomatch=0)
[1] 1 0 2 3 0 0 0 0 4 0
>
> str<-c("a","ab","B","bla",NA,"%","z")
> x<- str %in% c(letters,LETTERS);x
[1] TRUE FALSE TRUE FALSE FALSE FALSE TRUE
> str[x]
[1] "a" "B" "z"
Files Plots Packages Help Viewer Presenta
Zoom
Export

prtacice

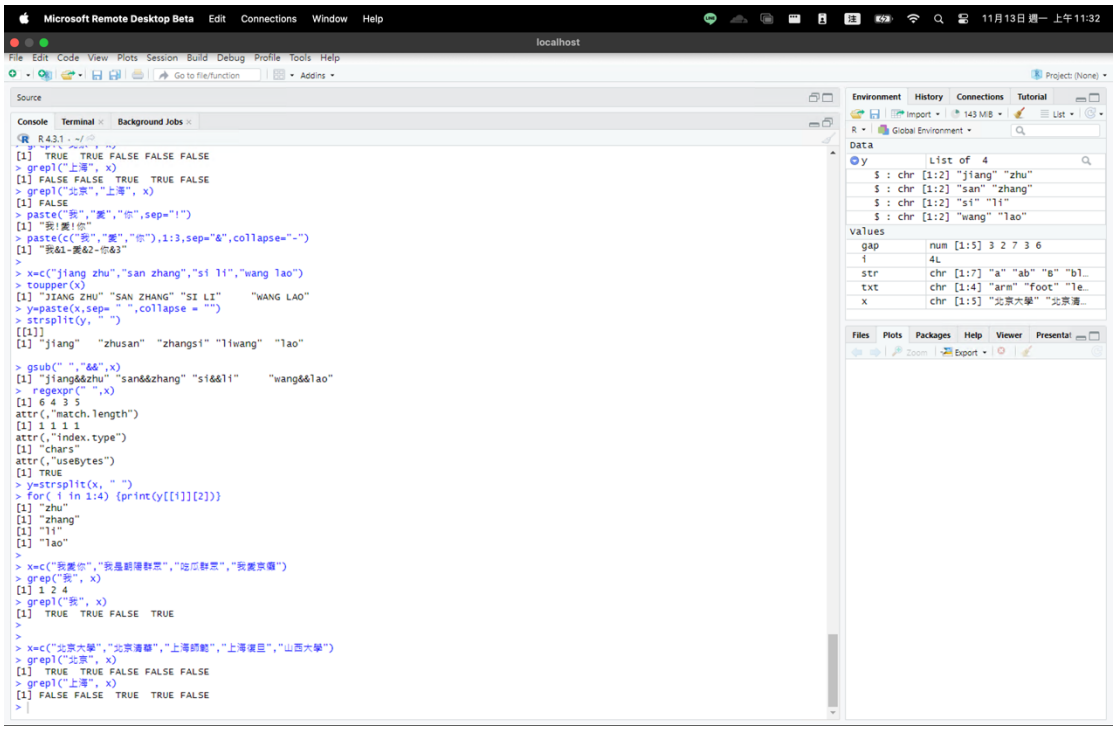



```
paste("我","愛","你",sep="!")
paste(c("我","愛","你"),1:3,sep="&",collapse="-")

x=c("jiang zhu","san zhang","si li","wang lao")
toupper(x)
y=paste(x,sep=" ",collapse = "")
strsplit(y," ")
gsub(" ","&&",x)
 regexpr(" ",x)
y=strsplit(x," ")
for( i in 1:4) {print(y[[i]][2])}

x=c("我愛你","我是顧陽群眾","哈瓜群眾","我愛京喵")
grep("我", x)
grepl("我", x)


x=c("北京大學","北京清華","上海師範","上海復旦","山西大學")
grepl("北京", x)
grepl("上海", x)
```




```
[1]  TRUE  TRUE FALSE FALSE FALSE
> grepl("上海", x)
[1] FALSE FALSE  TRUE  TRUE FALSE
> grepl("北京","上海", x)
[1] FALSE
> paste("我","愛","你",sep="!")
[1] "我!愛!你"
> paste(c("我","愛","你"),1:3,sep="&",collapse="-")
[1] "我&1-愛&2-你&3"
>
> x=c("jiang zhu","san zhang","si li","wang lao")
> toupper(x)
[1] "JIANG ZHU" "SAN ZHANG" "SI LI"     "WANG LAO"
> y=paste(x,sep=" ",collapse = "")
> strsplit(y," ")
[[1]]
[1] "jiang"   "zhusan"  "zhangsi" "liwang"  "lao"

> gsub(" ","&&",x)
[1] "jiang&&zhu" "san&&zhang" "si&&li"     "wang&&lao"
>  regexpr(" ",x)
[1] 6 4 3 5
attr(,"match.length")
[1] 1 1 1 1
attr(,"index.type")
[1] "chars"
attr(,"useBytes")
[1] TRUE
> y=strsplit(x," ")
> for( i in 1:4) {print(y[[i]][2])}
[1] "zhu"
[1] "zhang"
[1] "li"
[1] "lao"
>
> x=c("我愛你","我是顧陽群眾","哈瓜群眾","我愛京喵")
> grep("我", x)
[1] 1 2 4
> grepl("我", x)
[1]  TRUE  TRUE FALSE  TRUE
>
>
> x=c("北京大學","北京清華","上海師範","上海復旦","山西大學")
> grepl("北京", x)
[1]  TRUE  TRUE FALSE FALSE FALSE
> grepl("上海", x)
[1] FALSE FALSE  TRUE  TRUE FALSE
>
```