

The LSD Lab

Guide for:

Navigating RStudio

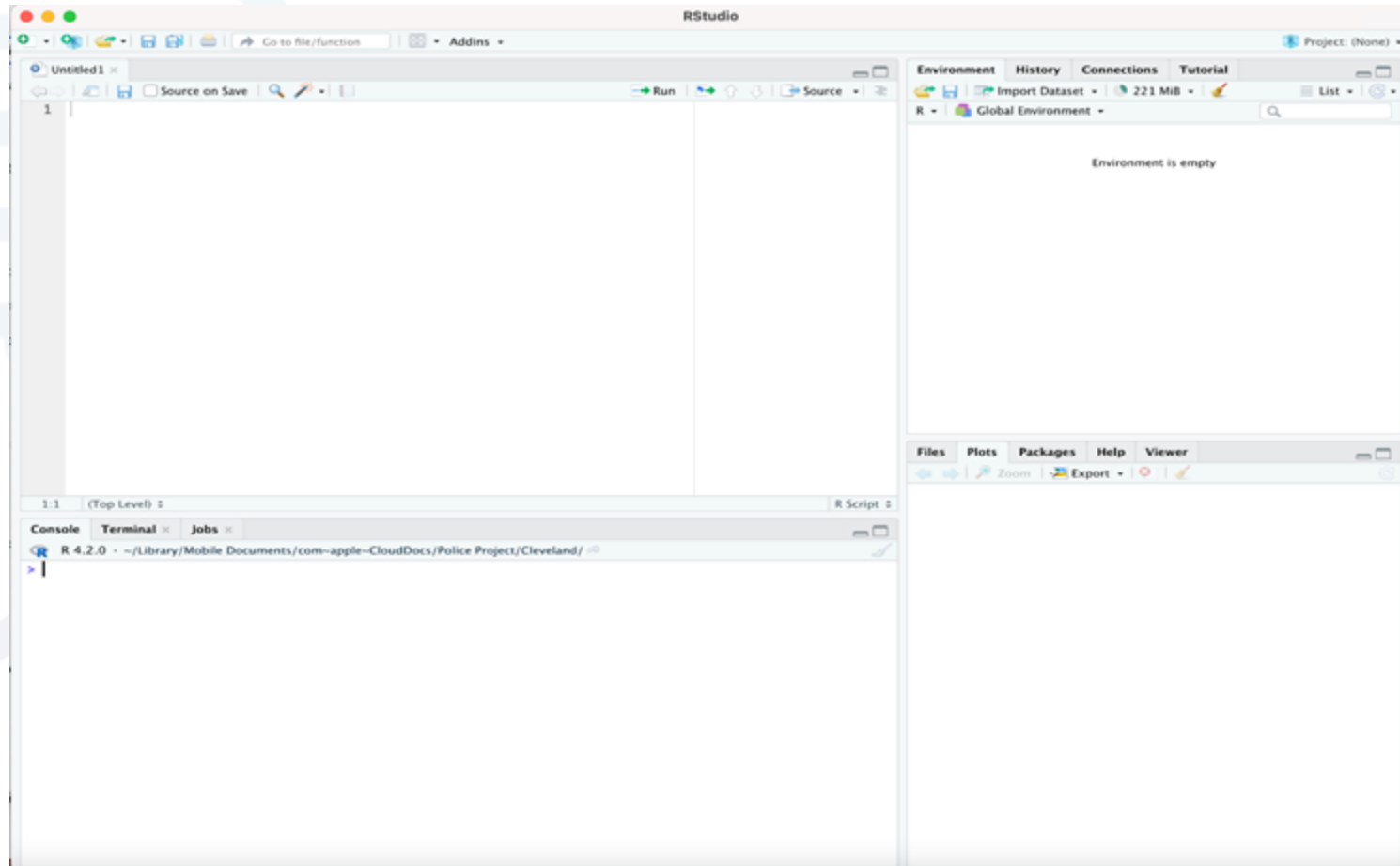


Getting Started in RStudio

- Now that you've installed Base R and RStudio, it's time to get comfortable in the space where you'll be doing your work.
- RStudio is designed to make R easier to write, read, organize, and explore.
- This walkthrough shows you what everything is, what it does, and how to take your first steps using RStudio.

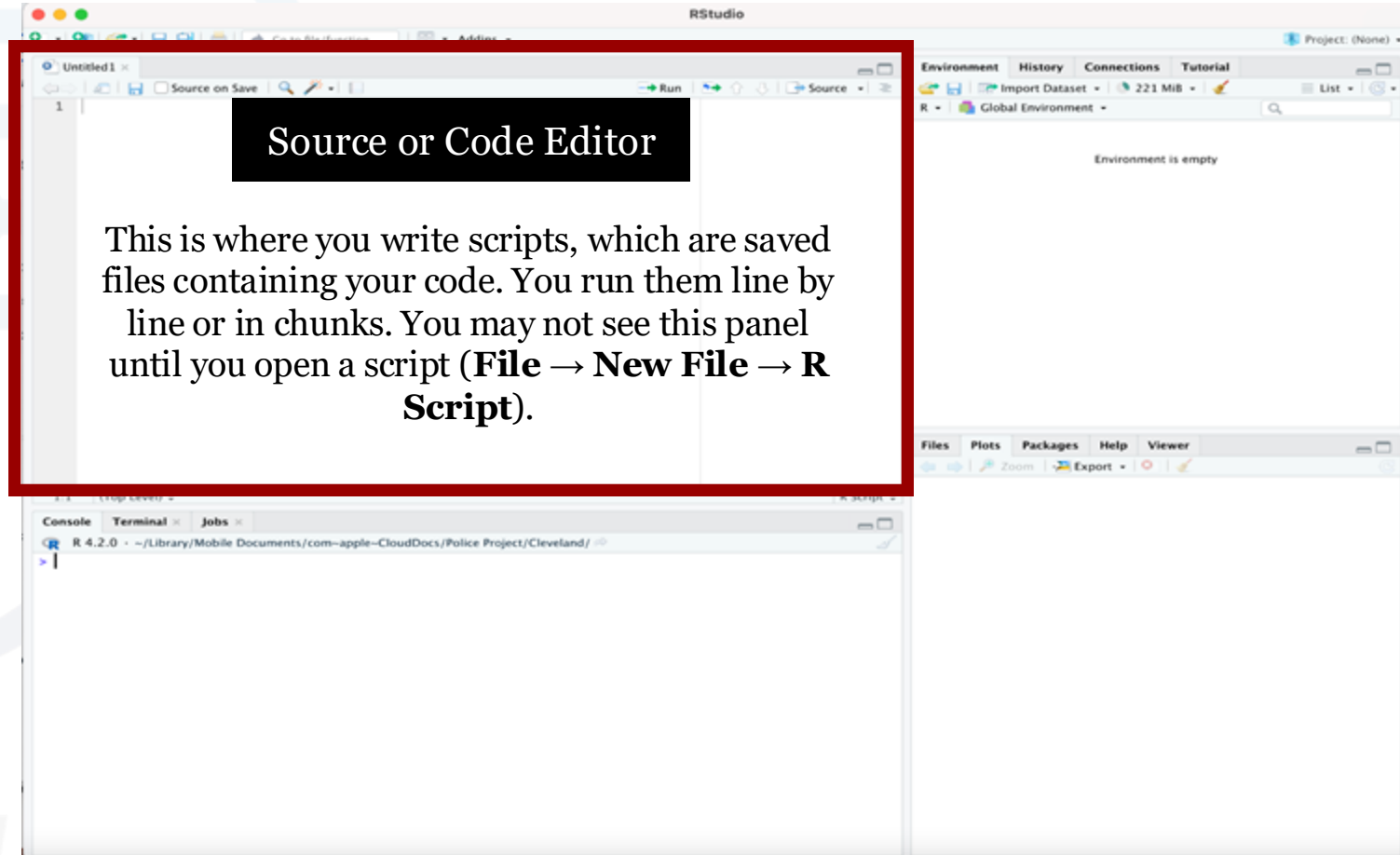
1. The Four Main Panels in RStudio

When you open RStudio, you'll see four main panels. Each serves a different purpose.



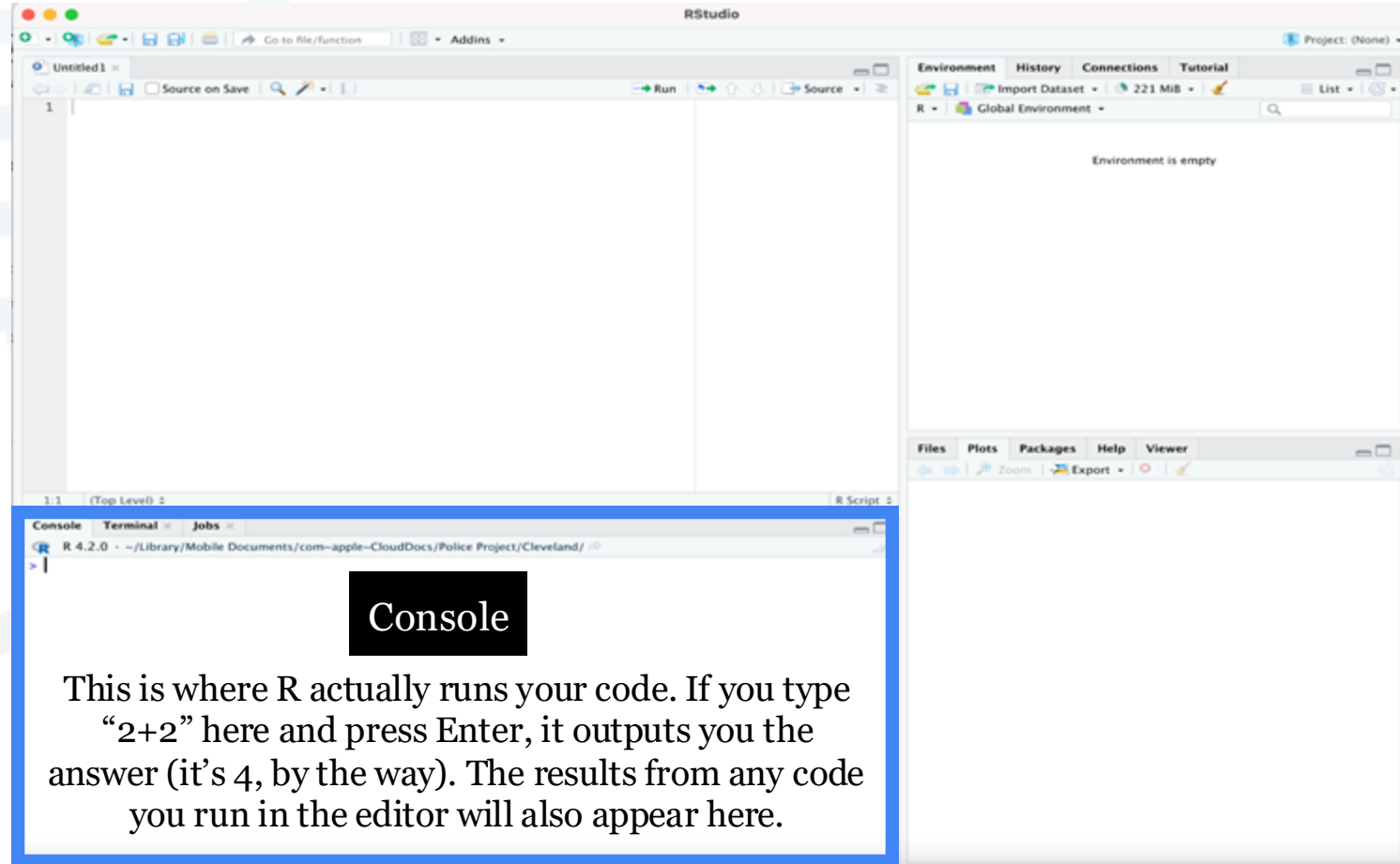
1. The Four Main Panels in RStudio

When you open RStudio, you'll see four main panels. Each serves a different purpose.



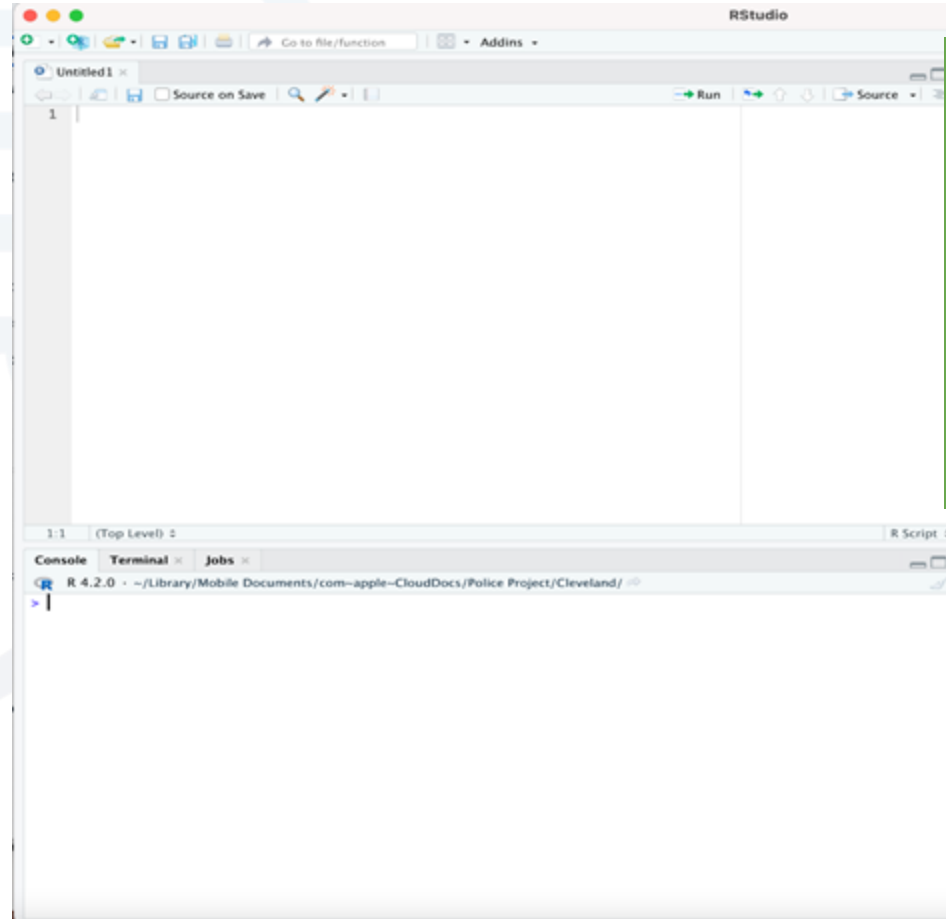
1. The Four Main Panels in RStudio

When you open RStudio, you'll see four main panels. Each serves a different purpose.



1. The Four Main Panels in RStudio

When you open RStudio, you'll see four main panels. Each serves a different purpose.

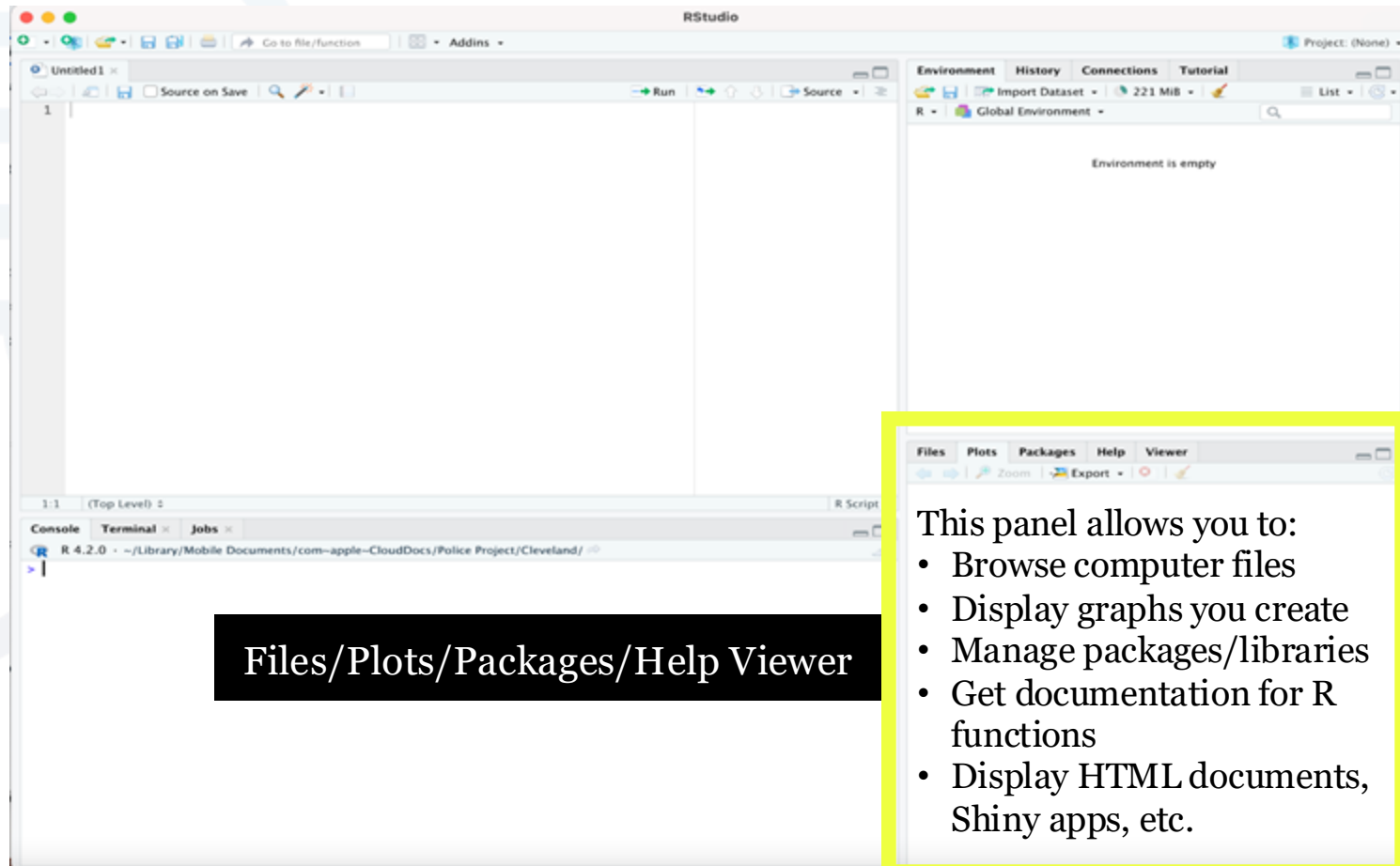


Environment/History

- *Environment* tab: shows everything you created in your session (objects, data frames, variables, etc.)
- *History* tab: shows commands you previously ran.

1. The Four Main Panels in RStudio


When you open RStudio, you'll see four main panels. Each serves a different purpose.

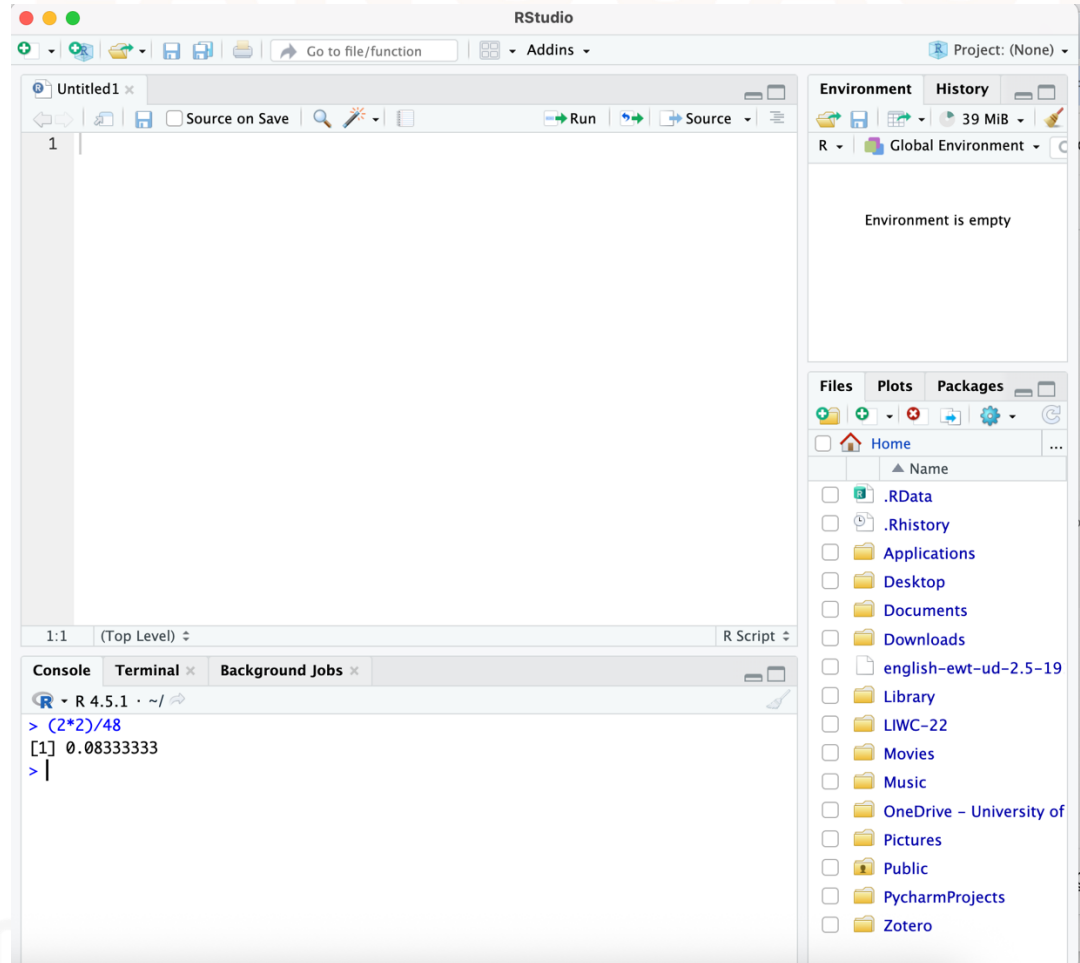


2. Running Code: Console vs. Script

You can run R code in two ways:

A. In the Console

- Use this for quick checks or experimenting.
- Example: 

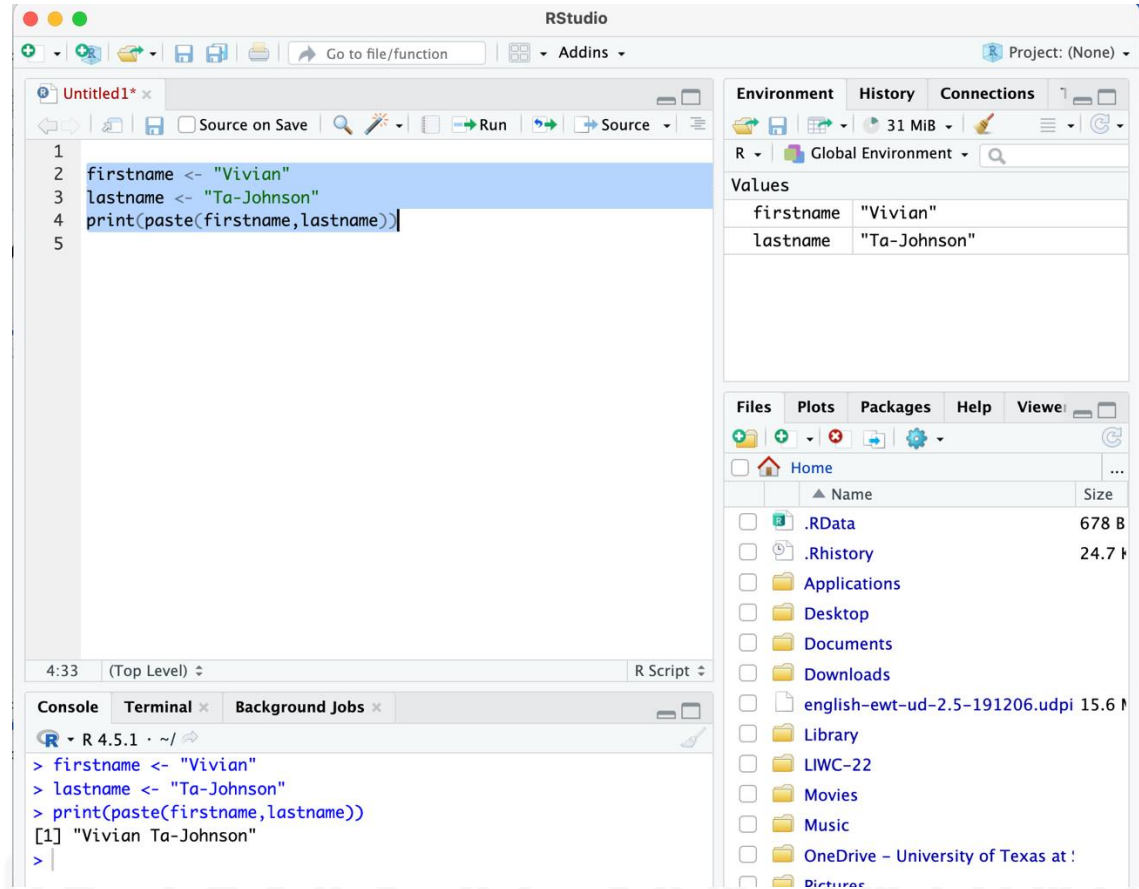


2. Running Code: Console vs. Script

B. In the Code Editor (recommended for real work)

- Create script:
File → New File → R Script
- Insert code in code editor.
- To run a line/chunk of code, highlight it and either A) click “Run” or B) press:
 - **Cmd + Enter** (macOS)
 - **Ctrl + Enter** (Windows)
- This sends your code to the Console to execute.

Note: Scripts can be saved and reused; the Console cannot.



3. Setting Your Working Directory

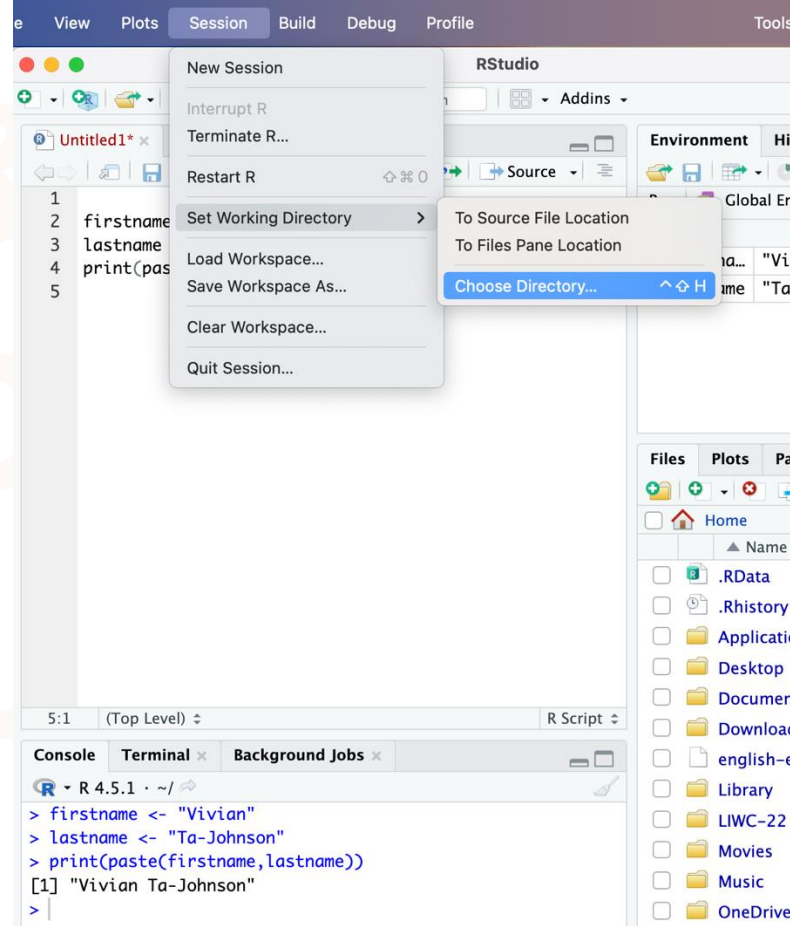
R needs to know where your files live which is called your working directory (wd).

There are two ways to set your wd.

A. Set wd via menu

Click **Session** → **Set Working Directory** → **Choose Directory...**

Then choose your wd.

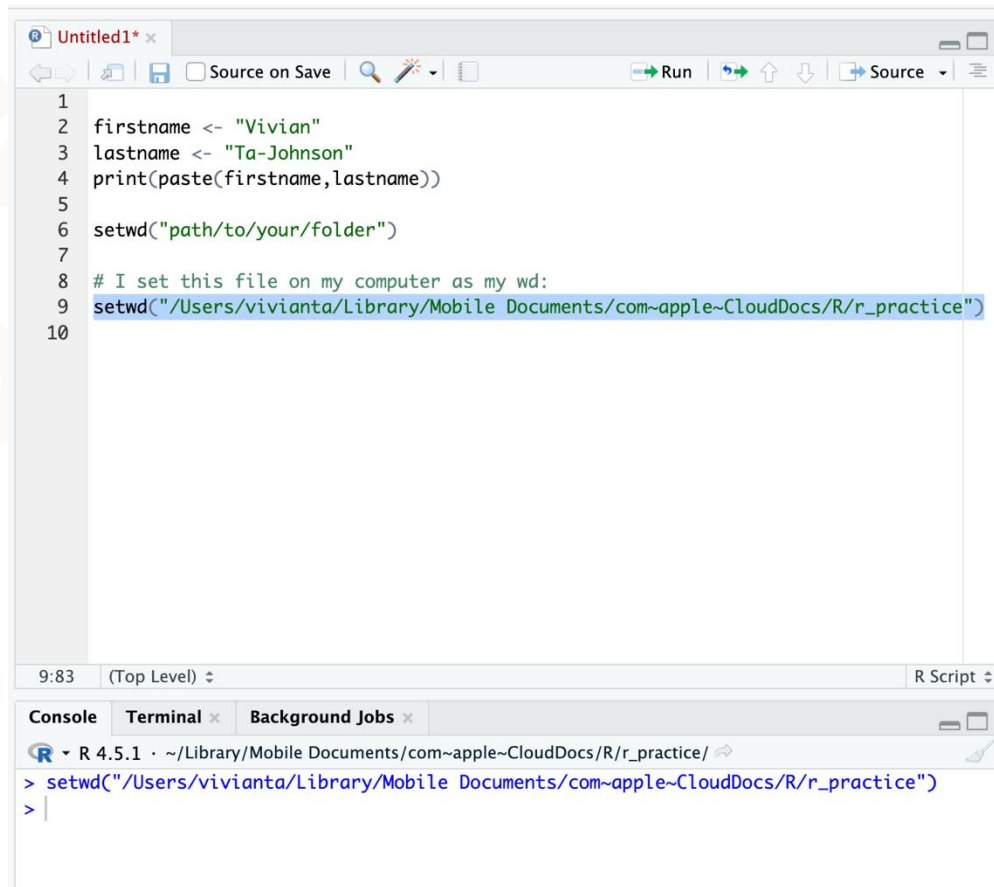


3. Setting Your Working Directory

B. Set wd via code using setwd()

`setwd("insert/folder/path")`

Note: make sure to use forward slashes.



The screenshot shows an R Studio interface. The top pane displays an R script titled 'Untitled1*' with the following code:

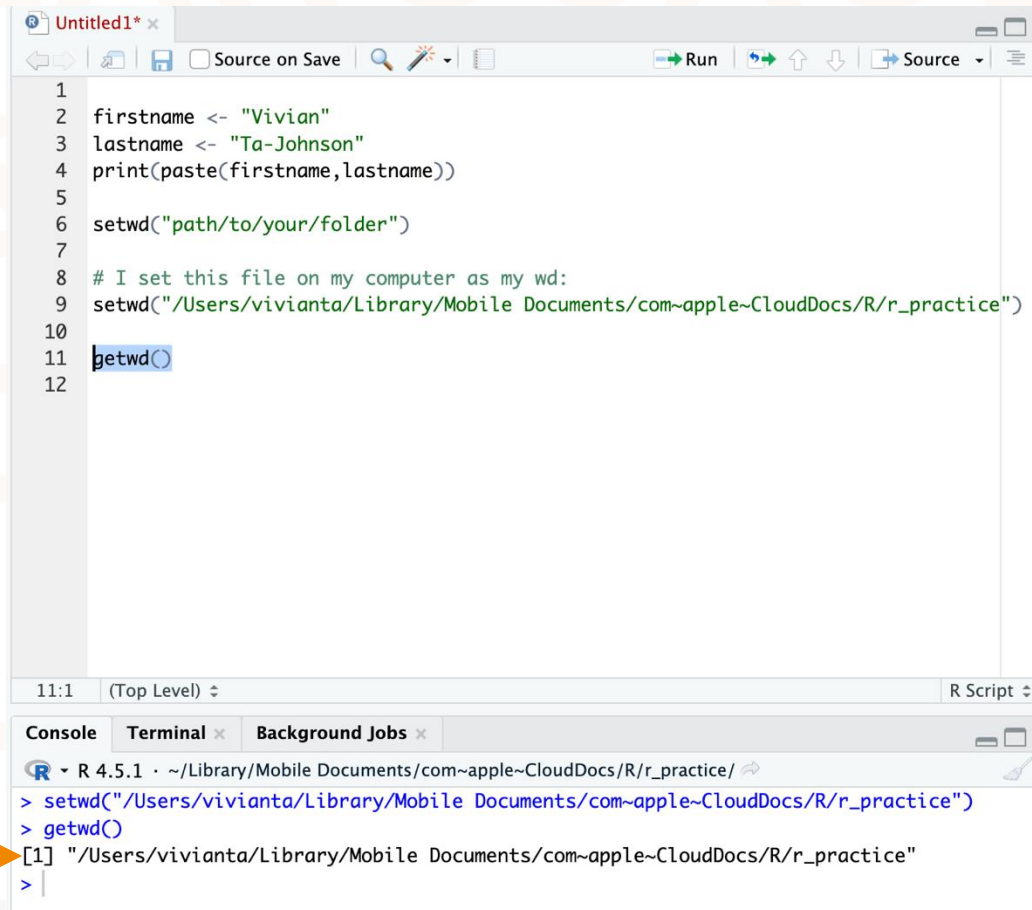
```
1  
2  firstname <- "Vivian"  
3  lastname <- "Ta-Johnson"  
4  print(paste(firstname,lastname))  
5  
6  setwd("path/to/your/folder")  
7  
8  # I set this file on my computer as my wd:  
9  setwd("~/Users/vivianta/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice")  
10
```

The bottom pane shows the console output, indicating the current working directory has been set to the specified path:

```
R ▾ R 4.5.1 · ~/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice/  
> setwd("~/Users/vivianta/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice")  
> |
```

3. Setting Your Working Directory

To check what your current wd is,
run `getwd()`



The screenshot shows an R script editor window titled 'Untitled1*' with the following code:

```
1  
2 firstname <- "Vivian"  
3 lastname <- "Ta-Johnson"  
4 print(paste(firstname,lastname))  
5  
6 setwd("path/to/your/folder")  
7  
8 # I set this file on my computer as my wd:  
9 setwd("/Users/vivianta/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice")  
10  
11 getwd()  
12
```

Below the script editor is a console window with the following output:

```
R 4.5.1 · ~/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice/  
> setwd("/Users/vivianta/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice")  
> getwd()  
[1] "/Users/vivianta/Library/Mobile Documents/com~apple~CloudDocs/R/r_practice"  
>
```

An orange arrow points from the text 'This prints the path to your current wd.' to the `getwd()` command in the script and its corresponding output in the console.

This prints the path to
your current wd.

4. Loading Data

Let's load a CSV file named `exampledata.csv` using `read.csv()`. It is currently in my wd and I want to name it "data" after loading it into RStudio:

```
data <- read.csv("exampledata.csv")
```

“data” now appears in the Environment pane. Clicking its name lets you view it like a spreadsheet.

The screenshot displays the RStudio interface. The top toolbar includes icons for file operations and running code. The main editor window shows an R script with the following code:

```

1  # Untitled1* x
2  # Source on Save
3  # Run
4  # Source
5  # Run
6  # Source
7  # Run
8  # Source
9  # Run
10 # Source
11 # Run
12 # Source
13 # Run
14 # Source
15 # Run
16 # Source
17 # Run
18 # Source
19 # Run
20 # Source
21 # Run
22 # Source
23 # Run
24 # Source
25 # Run
26 # Source
27 # Run
28 # Source
29 # Run
30 # Source
31 # Run
32 # Source
33 # Run
34 # Source
35 # Run
36 # Source
37 # Run
38 # Source
39 # Run
40 # Source
41 # Run
42 # Source
43 # Run
44 # Source
45 # Run
46 # Source
47 # Run
48 # Source
49 # Run
50 # Source
51 # Run
52 # Source
53 # Run
54 # Source
55 # Run
56 # Source
57 # Run
58 # Source
59 # Run
60 # Source
61 # Run
62 # Source
63 # Run
64 # Source
65 # Run
66 # Source
67 # Run
68 # Source
69 # Run
70 # Source
71 # Run
72 # Source
73 # Run
74 # Source
75 # Run
76 # Source
77 # Run
78 # Source
79 # Run
80 # Source
81 # Run
82 # Source
83 # Run
84 # Source
85 # Run
86 # Source
87 # Run
88 # Source
89 # Run
90 # Source
91 # Run
92 # Source
93 # Run
94 # Source
95 # Run
96 # Source
97 # Run
98 # Source
99 # Run
100 # Source
101 # Run
102 # Source
103 # Run
104 # Source
105 # Run
106 # Source
107 # Run
108 # Source
109 # Run
110 # Source
111 # Run
112 # Source
113 # Run
114 # Source
115 # Run
116 # Source
117 # Run
118 # Source
119 # Run
120 # Source
121 # Run
122 # Source
123 # Run
124 # Source
125 # Run
126 # Source
127 # Run
128 # Source
129 # Run
130 # Source
131 # Run
132 # Source
133 # Run
134 # Source
135 # Run
136 # Source
137 # Run
138 # Source
139 # Run
140 # Source
141 # Run
142 # Source
143 # Run
144 # Source
145 # Run
146 # Source
147 # Run
148 # Source
149 # Run
150 # Source
151 # Run
152 # Source
153 # Run
154 # Source
155 # Run
156 # Source
157 # Run
158 # Source
159 # Run
160 # Source
161 # Run
162 # Source
163 # Run
164 # Source
165 # Run
166 # Source
167 # Run
168 # Source
169 # Run
170 # Source
171 # Run
172 # Source
173 # Run
174 # Source
175 # Run
176 # Source
177 # Run
178 # Source
179 # Run
180 # Source
181 # Run
182 # Source
183 # Run
184 # Source
185 # Run
186 # Source
187 # Run
188 # Source
189 # Run
190 # Source
191 # Run
192 # Source
193 # Run
194 # Source
195 # Run
196 # Source
197 # Run
198 # Source
199 # Run
200 # Source
201 # Run
202 # Source
203 # Run
204 # Source
205 # Run
206 # Source
207 # Run
208 # Source
209 # Run
210 # Source
211 # Run
212 # Source
213 # Run
214 # Source
215 # Run
216 # Source
217 # Run
218 # Source
219 # Run
220 # Source
221 # Run
222 # Source
223 # Run
224 # Source
225 # Run
226 # Source
227 # Run
228 # Source
229 # Run
230 # Source
231 # Run
232 # Source
233 # Run
234 # Source
235 # Run
236 # Source
237 # Run
238 # Source
239 # Run
240 # Source
241 # Run
242 # Source
243 # Run
244 # Source
245 # Run
246 # Source
247 # Run
248 # Source
249 # Run
250 # Source
251 # Run
252 # Source
253 # Run
254 # Source
255 # Run
256 # Source
257 # Run
258 # Source
259 # Run
260 # Source
261 # Run
262 # Source
263 # Run
264 # Source
265 # Run
266 # Source
267 # Run
268 # Source
269 # Run
270 # Source
271 # Run
272 # Source
273 # Run
274 # Source
275 # Run
276 # Source
277 # Run
278 # Source
279 # Run
280 # Source
281 # Run
282 # Source
283 # Run
284 # Source
285 # Run
286 # Source
287 # Run
288 # Source
289 # Run
290 # Source
291 # Run
292 # Source
293 # Run
294 # Source
295 # Run
296 # Source
297 # Run
298 # Source
299 # Run
300 # Source
301 # Run
302 # Source
303 # Run
304 # Source
305 # Run
306 # Source
307 # Run
308 # Source
309 # Run
310 # Source
311 # Run
312 # Source
313 # Run
314 # Source
315 # Run
316 # Source
317 # Run
318 # Source
319 # Run
320 # Source
321 # Run
322 # Source
323 # Run
324 # Source
325 # Run
326 # Source
327 # Run
328 # Source
329 # Run
330 # Source
331 # Run
332 # Source
333 # Run
334 # Source
335 # Run
336 # Source
337 # Run
338 # Source
339 # Run
340 # Source
341 # Run
342 # Source
343 # Run
344 # Source
345 # Run
346 # Source
347 # Run
348 # Source
349 # Run
350 # Source
351 # Run
352 # Source
353 # Run
354 # Source
355 # Run
356 # Source
357 # Run
358 # Source
359 # Run
360 # Source
361 # Run
362 # Source
363 # Run
364 # Source
365 # Run
366 # Source
367 # Run
368 # Source
369 # Run
370 # Source
371 # Run
372 # Source
373 # Run
374 # Source
375 # Run
376 # Source
377 # Run
378 # Source
379 # Run
380 # Source
381 # Run
382 # Source
383 # Run
384 # Source
385 # Run
386 # Source
387 # Run
388 # Source
389 # Run
390 # Source
391 # Run
392 # Source
393 # Run
394 # Source
395 # Run
396 # Source
397 # Run
398 # Source
399 # Run
400 # Source
401 # Run
402 # Source
403 # Run
404 # Source
405 # Run
406 # Source
407 # Run
408 # Source
409 # Run
410 # Source
411 # Run
412 # Source
413 # Run
414 # Source
415 # Run
416 # Source
417 # Run
418 # Source
419 # Run
420 # Source
421 # Run
422 # Source
423 # Run
424 # Source
425 # Run
426 # Source
427 # Run
428 # Source
429 # Run
430 # Source
431 # Run
432 # Source
433 # Run
434 # Source
435 # Run
436 # Source
437 # Run
438 # Source
439 # Run
440 # Source
441 # Run
442 # Source
443 # Run
444 # Source
445 # Run
446 # Source
447 # Run
448 # Source
449 # Run
450 # Source
451 # Run
452 # Source
453 # Run
454 # Source
455 # Run
456 # Source
457 # Run
458 # Source
459 # Run
460 # Source
461 # Run
462 # Source
463 # Run
464 # Source
465 # Run
466 # Source
467 # Run
468 # Source
469 # Run
470 # Source
471 # Run
472 # Source
473 # Run
474 # Source
475 # Run
476 # Source
477 # Run
478 # Source
479 # Run
480 # Source
481 # Run
482 # Source
483 # Run
484 # Source
485 # Run
486 # Source
487 # Run
488 # Source
489 # Run
490 # Source
491 # Run
492 # Source
493 # Run
494 # Source
495 # Run
496 # Source
497 # Run
498 # Source
499 # Run
500 # Source
501 # Run
502 # Source
503 # Run
504 # Source
505 # Run
506 # Source
507 # Run
508 # Source
509 # Run
510 # Source
511 # Run
512 # Source
513 # Run
514 # Source
515 # Run
516 # Source
517 # Run
518 # Source
519 # Run
520 # Source
521 # Run
522 # Source
523 # Run
524 # Source
525 # Run
526 # Source
527 # Run
528 # Source
529 # Run
530 # Source
531 # Run
532 # Source
533 # Run
534 # Source
535 # Run
536 # Source
537 # Run
538 # Source
539 # Run
540 # Source
541 # Run
542 # Source
543 # Run
544 # Source
545 # Run
546 # Source
547 # Run
548 # Source
549 # Run
550 # Source
551 # Run
552 # Source
553 # Run
554 # Source
555 # Run
556 # Source
557 # Run
558 # Source
559 # Run
560 # Source
561 # Run
562 # Source
563 # Run
564 # Source
565 # Run
566 # Source
567 # Run
568 # Source
569 # Run
570 # Source
571 # Run
572 # Source
573 # Run
574 # Source
575 # Run
576 # Source
577 # Run
578 # Source
579 # Run
580 # Source
581 # Run
582 # Source
583 # Run
584 # Source
585 # Run
586 # Source
587 # Run
588 # Source
589 # Run
590 # Source
591 # Run
592 # Source
593 # Run
594 # Source
595 # Run
596 # Source
597 # Run
598 # Source
599 # Run
600 # Source
601 # Run
602 # Source
603 # Run
604 # Source
605 # Run
606 # Source
607 # Run
608 # Source
609 # Run
610 # Source
611 # Run
612 # Source
613 # Run
614 # Source
615 # Run
616 # Source
617 # Run
618 # Source
619 # Run
620 # Source
621 # Run
622 # Source
623 # Run
624 # Source
625 # Run
626 # Source
627 # Run
628 # Source
629 # Run
630 # Source
631 # Run
632 # Source
633 # Run
634 # Source
635 # Run
636 # Source
637 # Run
638 # Source
639 # Run
640 # Source
641 # Run
642 # Source
643 # Run
644 # Source
645 # Run
646 # Source
647 # Run
648 # Source
649 # Run
650 # Source
651 # Run
652 # Source
653 # Run
654 # Source
655 # Run
656 # Source
657 # Run
658 # Source
659 # Run
660 # Source
661 # Run
662 # Source
663 # Run
664 # Source
665 # Run
666 # Source
667 # Run
668 # Source
669 # Run
670 # Source
671 # Run
672 # Source
673 # Run
674 # Source
675 # Run
676 # Source
677 # Run
678 # Source
679 # Run
680 # Source
681 # Run
682 # Source
683 # Run
684 # Source
685 # Run
686 # Source
687 # Run
688 # Source

```

The screenshot shows the RStudio interface. On the left, the 'Environment' pane displays a data frame with 8 rows and 3 columns: 'participant', 'score', and 'rank'. The data is as follows:

participant	score	rank
1	1	76
2	2	92
3	3	45
4	4	78
5	5	34
6	6	66
7	7	89
8	8	67

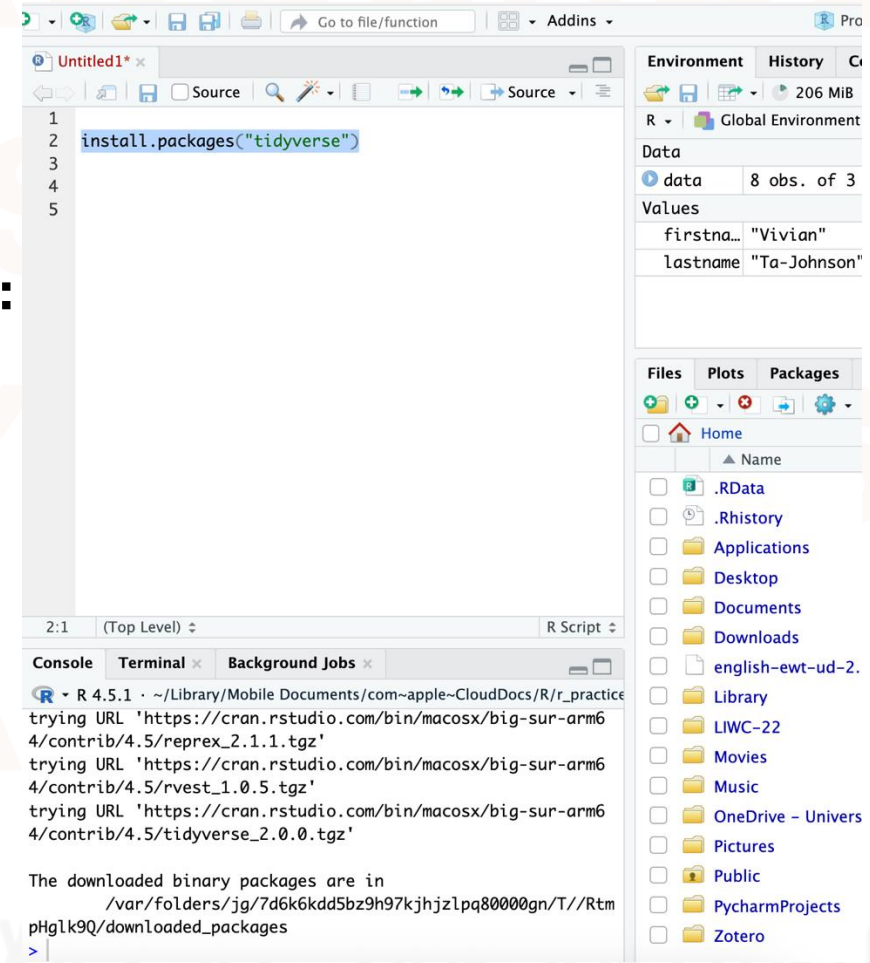
On the right, the 'Data' pane shows the same data frame with 8 observations and 3 variables. Below it, the 'Values' pane displays the first two columns: 'firstname' and 'lastname', with values 'Vivian' and 'Ta-Johnson' respectively.

5. Installing and Loading Packages

Packages extend R's abilities. You can install packages:

A. Via code using `install.packages()`:

```
install.packages("tidyverse")
```

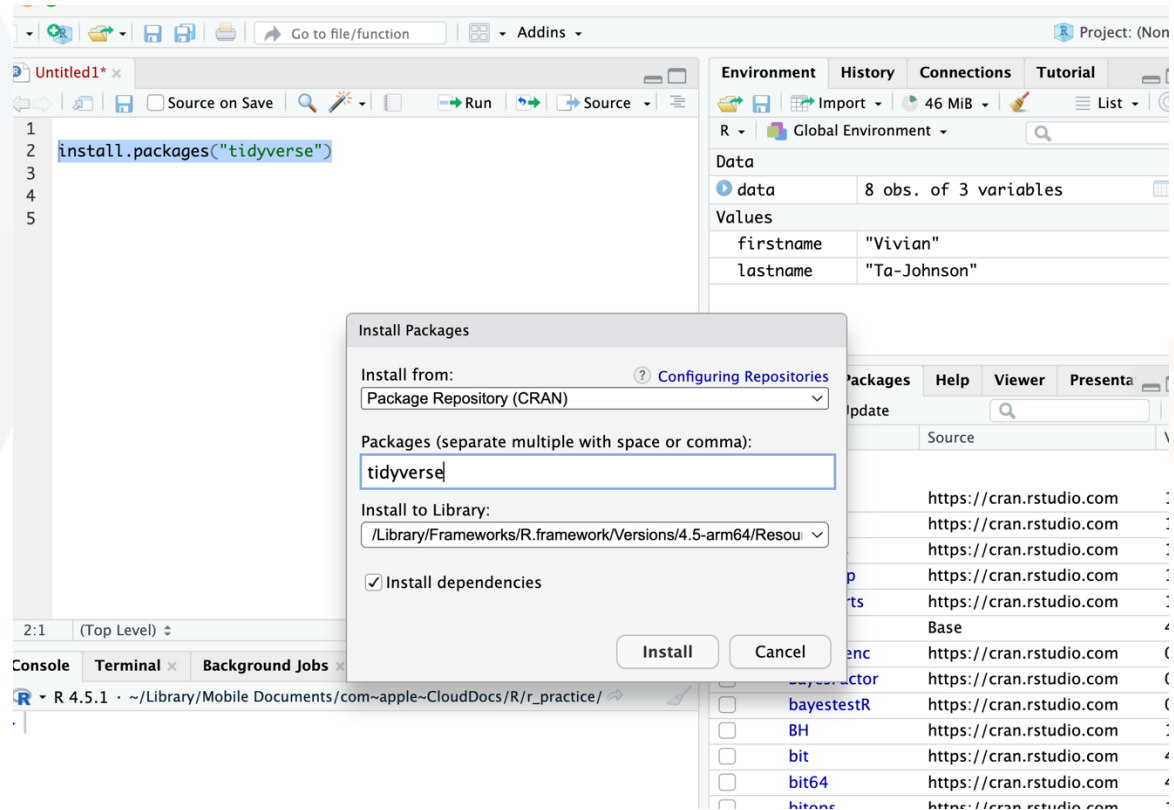


5. Installing and Loading Packages

B. Via menu

In the packages panel, click:

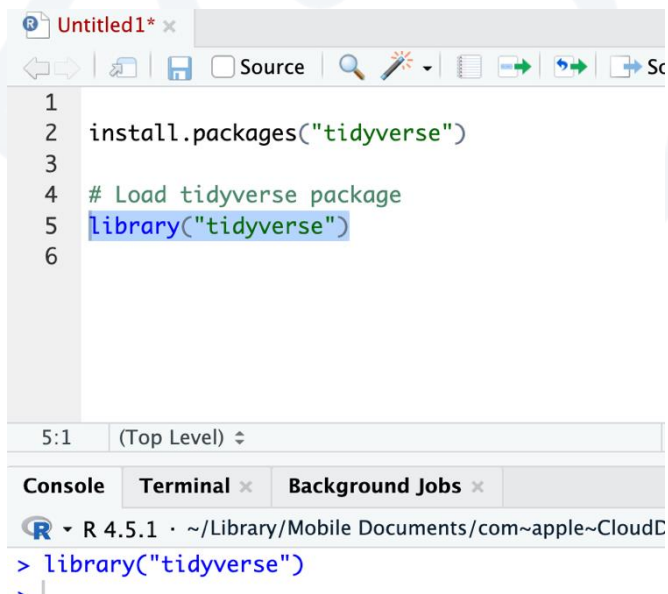
**Packages → Install →
Type in name of package
in “Packages” → Install**



5. Installing and Loading Packages

After installation, you can load a package:

A. Via code using `library()`:



```
1  
2 install.packages("tidyverse")  
3  
4 # Load tidyverse package  
5 library("tidyverse")  
6
```

5:1 (Top Level) ▾

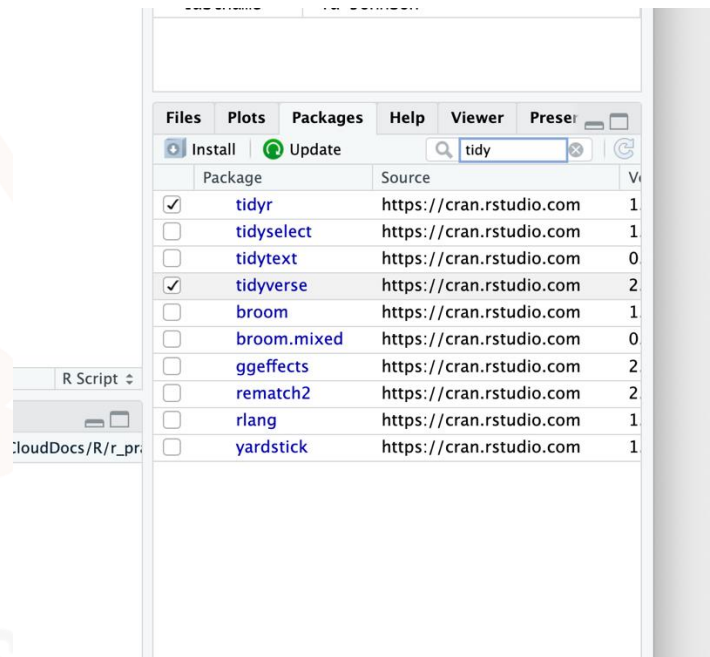
Console Terminal x Background Jobs x

R 4.5.1 · ~/Library/Mobile Documents/com~apple~CloudC

```
> library("tidyverse")  
|
```

or

B. Via the Packages menu by selecting the package:



6. Saving Your Script

To save your script in your wd:

- Click Save
- Name it (e.g., my_first_rscript.R)

