

hw00-jaewonc3

Jaewon Choi

2017 9 4

Exercise 1: Know Thine Environment

Figures 1 through 6 verifies each setups.

Exercise 2: Toto, I have a feeling we're not in Kansas anymore...

1. James Balamuta
2. His office is at Tech Plaza 212F, office hours are TBA
3. Tag [STAT 385] and a space must be contained before, and the subject has to provide more helpful description
4. 218 Mechanical Engineering Bldg on Mondays, Wednesdays, and Fridays, 2:00 PM - 2:50 PM.
5. 1 midterm and 1 final exam, location and time to be announced.
6. Each component is worth 100 points, and not everyone will get the same points
7. You will have to cite where you referenced the code from.

Exercise 4: Who I Am

Self-portrait: Figure 7.

Item	Who I am
<i>Name</i>	Jaewon Choi
<i>NetID</i>	jaewonc3
<i>Birthday</i>	1996.02.26
<i>Year</i>	Junior
<i>Major</i>	Industrial Engineering
<i>Expected graduation date</i>	2019.02

Ordered List of:

1. My favorite food: steak
2. My favorite TV show: Game of Thrones
3. My favorite movie: Breakfast at Tiffany's
4. My favorite song: Seven Days In Sunny June by Jamiroquai (<https://www.youtube.com/watch?v=FRSH-egVyzk>)

Unordered List of:

- Recent Memorable Event: I saw the eclipse in the airplane.
- Where I spend free time: In my room.

Inline equation $\phi = \frac{1+\sqrt{5}}{2} = 1.618034$

My favorite mathematical equation is Laplace's Equation:

$$\Delta f = \frac{\delta^2 f}{\delta x^2} + \frac{\delta^2 f}{\delta y^2} + \frac{\delta^2 f}{\delta z^2} = 0$$

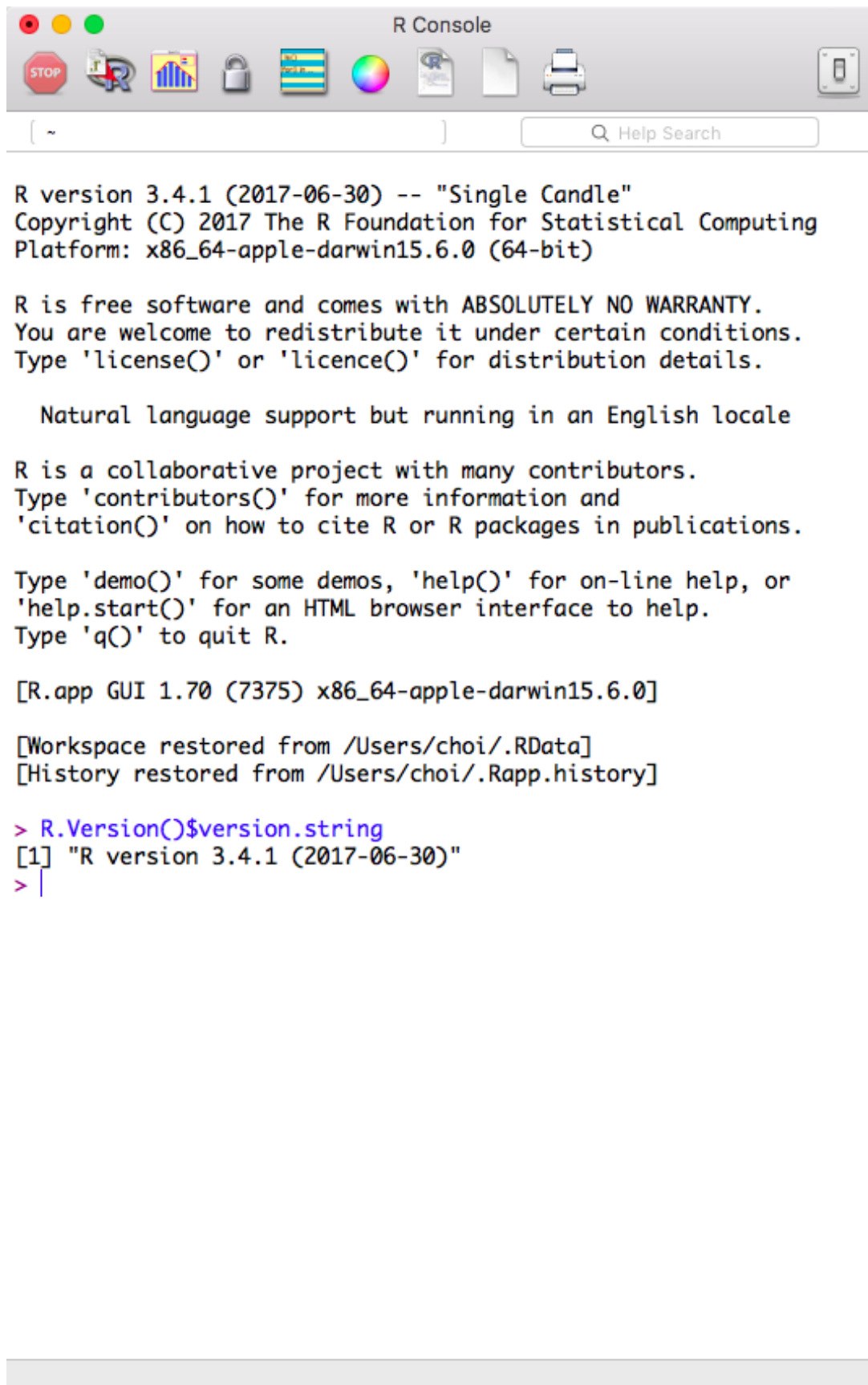


Figure 1: Verification of R 3.4.1

```
> RStudio.Version()
```

```
$citation
```

To cite RStudio in publications use:

RStudio Team (2016). RStudio: Integrated Development for R.
RStudio, Inc., Boston, MA URL <http://www.rstudio.com/>.

A BibTeX entry for LaTeX users is

```
@Manual{,  
  title = {RStudio: Integrated Development Environment for R},  
  author = {{RStudio Team}},  
  organization = {RStudio, Inc.},  
  address = {Boston, MA},  
  year = {2016},  
  url = {http://www.rstudio.com/},  
}
```

```
$mode
```

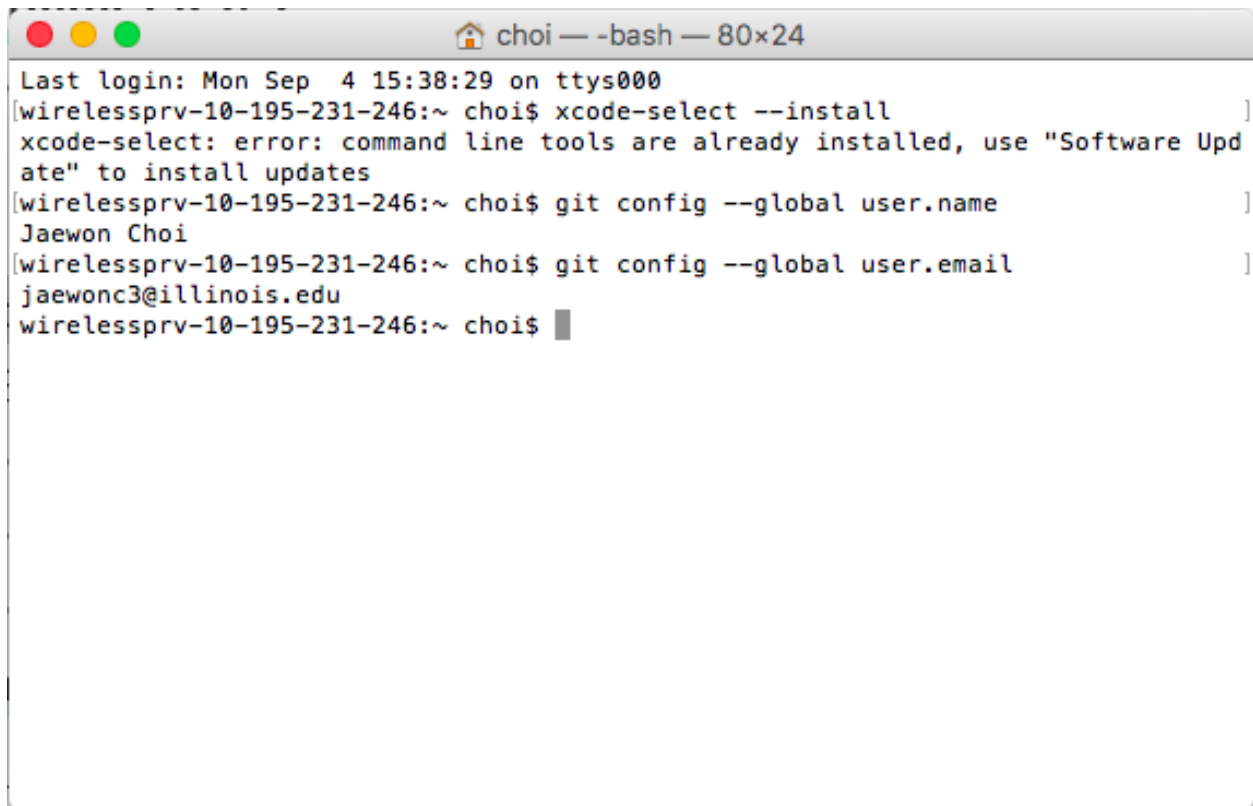
```
[1] "desktop"
```

```
$version
```

```
[1] '1.0.153'
```

```
>
```

Figure 2: Verification of RStudio 1.0.153

A terminal window with a title bar containing three colored circles (red, yellow, green) and the text 'choi — -bash — 80x24'. The terminal output shows the following sequence of commands and responses:

```
Last login: Mon Sep  4 15:38:29 on ttys000
[wirelessprv-10-195-231-246:~ choi$ xcode-select --install ]
xcode-select: error: command line tools are already installed, use "Software Upd
ate" to install updates
[wirelessprv-10-195-231-246:~ choi$ git config --global user.name ]
Jaewon Choi
[wirelessprv-10-195-231-246:~ choi$ git config --global user.email ]
jaewonc3@illinois.edu
wirelessprv-10-195-231-246:~ choi$ █
```

Figure 3: Verification of installation of Git

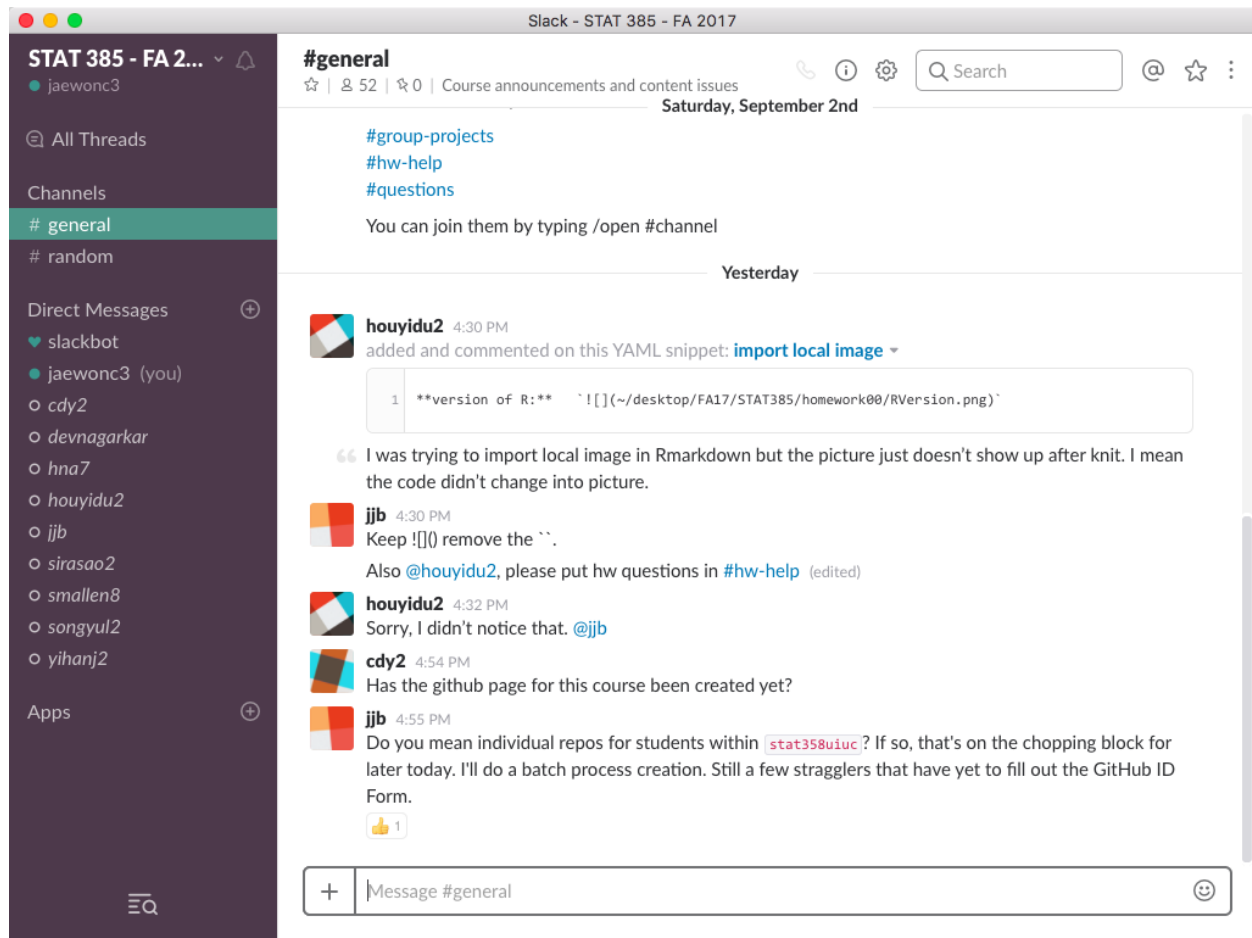
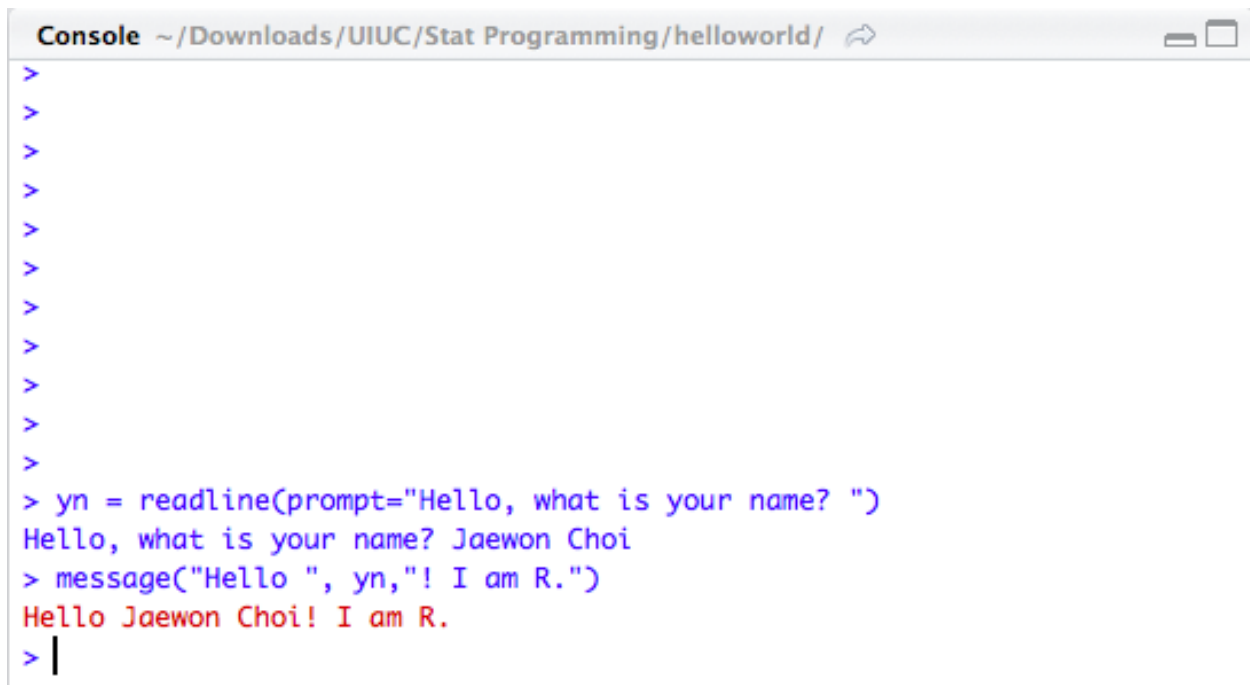


Figure 4: Verification of Slack



The screenshot shows a terminal window titled "Console" with the path "~/Downloads/UIUC/Stat Programming/helloworld/". The prompt is ">". The user enters several blank lines, followed by the R code: `yn = readline(prompt="Hello, what is your name? ")`, then `message("Hello ", yn, "! I am R.")`. The output shows the prompt "Hello, what is your name? Jaewon Choi" and the message "Hello Jaewon Choi! I am R." in red text. The cursor is at the next prompt line.

```
>
>
>
>
>
>
>
>
>
>
>
>
>
> yn = readline(prompt="Hello, what is your name? ")
Hello, what is your name? Jaewon Choi
> message("Hello ", yn, "! I am R.")
Hello Jaewon Choi! I am R.
> |
```

Figure 5: Verification of Working R Install



The screenshot shows a terminal window with two tabs: "Console" and "R Markdown x". The path is "~/Downloads/UIUC/Stat Programming/helloworld/". The prompt is ">". The user enters several blank lines, followed by the R code: `Rcpp::evalCpp("1 + 1")`. The output is `[1] 2`. The cursor is at the next prompt line.

```
>
>
>
>
>
>
>
>
>
>
>
>
>
>
> Rcpp::evalCpp("1 + 1")
[1] 2
> |
```

Figure 6: Verifying the R Build Toolchain



Figure 7: A self portrait

Exercise 5: Got Code?

```
divide = function(a, b) {  
  return(a / b)  
}
```

```
divide(8, 2)
```

```
## [1] 4
```

You can prevent display of the result by setting the chunk option `results='hide'`.

```
divide = function(a, b) {  
  return(a / b)  
}
```

```
divide(8, 2)
```

You don't lose syntax highlighting, but you only hide the results of the code.

There is another way to get similar response; by having it evaluate only code line 1 and 2.

```
divide = function(a, b) {  
  return(a / b)  
}
```

```
## divide(8, 2)
```

```
##
```

if you do not want your code run, you can set the chunk option `eval = FALSE`.

```
divide = function(a, b) {  
  return(a / b)  
}
```

```
divide(8, 2)
```

if i want to share divide function without syntax highlighting,

```
divide = function(a, b) {  
  return(a / b)  
}
```

```
divide(8, 2)
```

This approach excludes syntax highlighting, but it is an inline code, not a code chunk.

Exercise 6: Hopeless Wanderer

$$(\frac{6}{3} - 1) + 2 * 5^2 = 51$$

```
add = function(a, b) {  
  message("ADD")  
  return(a + b)  
}
```

```
subtract = function(a, b) {  
  message("SUBTRACT")
```



```

    return(a - b)
}

multiply = function(a, b) {
  message("MULTIPLY")
  return(a * b)
}

divide = function(a, b) {
  message("DIVIDE")
  return(a / b)
}

power = function(a,b){
  message("POWER")
  return(a ^ b)
}

add((subtract(divide(6,3),1)),multiply(2, power(5,2)))

```

```

## ADD
## SUBTRACT
## DIVIDE
## MULTIPLY
## POWER
## [1] 51

```

Evaluation order changes when

```

add = function(a, b) {
  message("ADD:", a, ",", b)
  return(a + b)
}

subtract = function(a, b) {
  message("SUBTRACT:", a, ",", b)
  return(a - b)
}

multiply = function(a, b) {
  message("MULTIPLY:", a, ",", b)
  return(a * b)
}

divide = function(a, b) {
  message("DIVIDE:", a, ",", b)
  return(a / b)
}

power = function(a,b){
  message("POWER:", a, ",", b)
  return(a ^ b)
}

```

```
}  
  
add((subtract(divide(6,3),1)),multiply(2, power(5,2)))
```

```
## DIVIDE:6,3  
## SUBTRACT:2,1  
## POWER:5,2  
## MULTIPLY:2,25  
## ADD:1,50  
## [1] 51
```

my guess is that for the former code prints message as soon as it meets the code, but the latter awaits until there is a return value of `a` and `b` until it prints messages.