

A decorative graphic consisting of a large dashed rectangle with rounded corners. A dashed arrow curves from the top right corner of the rectangle towards the top right corner of the slide. Another dashed arrow curves from the bottom left corner of the rectangle towards the bottom left corner of the slide. A solid vertical arrow points downwards from the top right corner of the rectangle to the bottom right corner of the slide.

# Info 201

## Lab 3 Yipee!



## Homework 4

- Due 10/25
- Content
  - Functions
  - Dplyr
  - Reading and writing .csv files
  - A bit longer than the previous assignments (so start early)





# 1

# DPLYR

A grammar for data  
manipulation





## dplyr verbs review

```
> select(data.frame, column1, column2, ...)
```

- Lets you select columns

```
> filter(data.frame, row.name %in% c("value1",  
"value2", ...))
```

- Lets you select rows

```
> mutate(data.frame, new.column1 = old.column * 2,  
new.column2 = old.column * 3)
```

- Create additional columns for your dataframe

```
> arrange(data.frame, column.name)
```

- Sorts data in ascending order
- Add - in front of column name to reverse order



# Pipe Operator

- Takes result from one function and passes them into another
  - Only need to put data frame into function once
- Syntax: %>%
- Example:

```
mtcars.named <- mutate(mtcars, car.name =  
  row.names(mtcars))
```

```
best.car <- filter(mtcars.named, cyl == 4) %>%  
  filter(mpg == max(mpg)) %>%  
  select(car.name)
```



CREATES NEW DATA  
FRAME AND PASSES IT  
INTO NEXT FUNCTION

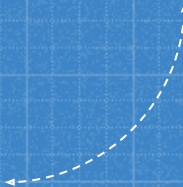




# 2

## Lab Exercise

Let's practice some  
of this stuff!





Don't forget...

- Homework 4 due 10/25
- Start early
- Homework 2 returned soon
- Questions?
  - Modules
  - Google
  - Neighbor
  - Then after all that...
    - Ask your TA
      - Slack
      - Email