\*clear

clear all

\*install a library for later

ssc install catplot

\*using it directly on the command field

\*Stata as a calculator\* seeing how it runs commands, input and output

display 2+2

display (3+5) \*2

\*take two minutes to play on it yourself

\*\* explaining do files\* this is what it looks like in do-file in comparison to the command line

display 2+2

display (3+5) \*2

\*\*importing data

\*importing data\* Excel

\*first you can use drop down\* show drop down

\*using code --

\*knowing where your files are - file paths\*

pwd

import excel "/Users/simhana99/Desktop/Students.xlsx",firstrow clear

\*saving it as a Stata file\* change the dta

save "/Users/simhana99/Desktop/Students.dta"

\*opening a stata file\* drop down or code

use "/Users/simhana99/Desktop/Students.dta"

\*getting to know your dataset\*

\*data browser/editor\* seeing the types of variables

\*code to examine your dataset\*

describe

codebook

codebook Gender

summarize

\*summarizing variables\* let's look at Gender and SAT

sum Gender

tab Gender

sum SAT

\*Note : you can only find means, standard deviations, etc. with NUMERIC variables

tab SAT

mean SAT

\*summarize variables by splitting into groups\*

tab SAT if Gender=="Female"

tab SAT if Age>25

\*telling it specifically what you want\* -- more complex

tabstat SAT, stat(mean sd max min)

tabstat SAT, by(Gender) stat(mean sd max min)

tabstat SAT Age, stat(mean sd max min)

\*and if and or not commands

tab SAT if Gender=="Female"

tab SAT if Gender!="Male"

tab SAT if Gender=="Female" & Age>20

sum SAT if Major=="Econ" | Major=="Politics"

\*comparing two variables - crosstabs\*

tab Gender Major

tab Gender Major, row column

\*take 15 minutes to get to know the dataset\* here

\*new variables\*

\*renaming variables\*

rename Major major

label variable major "Student's major"

\*creating new variables\*

gen score2= Averagescoregrade/100

\*more complex\*

generate age1=.

replace age1=1 if Age>0 & Age<=25

replace age1=2 if Age>25 & Age<=39

tab age1

label define age1 1 "25 or younger" 2 "older than 25"

label values age1 age1

\*\*why is age1 now a numeric variable and not a string?

codebook age1

tab age1 major

\*we want to make another variable numeric instead of a string

encode major, gen(major1)

encode Gender, gen(gender1)

tab major1

numlabel \_all, add

tab gender1

tab major1

\*why is this helpful??\*

\*lets make a variable where we split females into poli majors, econ, math

generate female\_major=.

replace female\_major=1 if major1==1 & gender1==1

replace female\_major=2 if major1==2 & gender1==1

replace female\_major=3 if major1==3 & gender1==1

label define female\_major 1 "female econ" 2 "female math" 3 "female political"

label values female\_major female\_major

tab female\_major

codebook female\_major

\*creating dummy variables\*

tab female\_major, generate(fmajor)

\*sorting\*

sort SAT

\*drop variables\*

drop Major

\*drop cases\*

drop if SAT<1900

\*keep cases\*

keep if SAT>1900

\*visualizing a variable\*

histogram Age, frequency

histogram SAT, percent

\*graph continuous data\*

twoway scatter SAT Age

\*line of best fit

twoway scatter SAT Age, || lfit SAT Age

\*graph categorical data\*

catplot major1 gender1

catplot major1 gender1, percent(major1)

\*analysis - chi2 and ttests

tab major1 gender1, chi2

ttest SAT, by(Gender)

\*log files\*

\*saving your data\* replace original data

save "/Users/simhana99/Desktop/Students.dta", replace

\*usually suggest making a new data file

save "/Users/simhana99/Desktop/Students\_update.dta"

\*merging files\*

\*first using drop down\*

merge 1:1 ID using "/Users/simhana99/Desktop/Students\_update.dta"

\*help\* Stata can always help you with command

\*stackexchange

help tabstat