Econ 294 Assignment 1

Curtis Kephart

Winter 2015

Put solutions in a `.R` script file. Name the file by concatinating your first and last name, plus "Assignment1". (e.g. my file would be called `CurtisKephartAssignment1.R`)

1. Load Data and verify it was loaded correctly.

- From .dta (STATA File). Assign the name `df.dta` to the file.

`https://github.com/EconomiCurtis/econ294_2015/raw/master/data/NHIS_2007_dta.dta`

- From CSV. Assign the name df.csv to the file.

`https://github.com/EconomiCurtis/econ294_2015/raw/master/data/NHIS_2007_CSV.csv`

- From Tab deliniated. Assign the name df.td to the file.

`https://github.com/EconomiCurtis/econ294_2015/raw/master/data/NHIS_2007_TSV.txt`

- From .RData. Assign the name df.rdata to the file.

`https://github.com/EconomiCurtis/econ294_2015/raw/master/data/NHIS_2007_RData.RData`

Download each file

length, dim, nrow, ncol, summary stats functions.

2. c function.

summary stats with NA and NULL values.

3. Matrix operations.

Create the following matrix and call it `x`.

$$\begin{matrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & 9 \end{matrix}$$

Show how to find it's transpose.

Find the eigenvalues and eigenvectors of `x`.

Now create the following matrix and call it `y`.

$$\begin{matrix} 1 & 2 & 3 \\ 3 & 2 & 1 \\ 2 & 3 & 0 \end{matrix}$$

Find the inverse of `y`.

Multiple `y` by its inverse. What is this new matrix called?

4. Create a data frame.

carat	cut	clarity	price
5	“fair”	“SI1”	850
2	“good”	“I1”	450
0.5	“very good”	“VI1”	450
1.5	“good”	“VS1”	NULL
5	“fair”	“IF”	750
NA	“Ideal”	“VVS2”	980
3	“fair”	“SI1”	420