Notes

Lecture: Grabbing a Dataset

Place to grab data sets.

1. https://archive.ics.uci.edu/ml/index.php
2. http://www.daviddlewis.com/resources/testcollections/reuters21578/
3. http://homepages.inf.ed.ac.uk/rbf/IAPR/researchers/MLPAGES/mldat.htm
4. https://grouplens.org/datasets/movielens/

Lecture: Importing Data into MATLAB

1. Use the function readtable('location') for importing data into matlab.
2. By default the variable names are Var1, Var2 and so on.
3. Change the default variable names by using the property of the table called T.Properties.VariableNames = {'some name' 'somen ame' …}
4. summary(T) will display some useful statistics regarding the variables in the table T.
5. Alternatively, you can use the import data tool to import you data. The columns you selected will be transferred to workspace variables. After that you can create table out of those variable.

Lecture: Understanding the Table Data Type

1. The colon operation can be used to select data row wise and column wise.
2. We need to specify the starting and ending index with the column operator and optionally can provide a step size also. If we do not specify the starting index and ending index than by default it is going to consider all the rows or columns. For instance, if T is a table then T(1:10,:) will display the first ten rows corresponding to all columns (since no starting and ending index were being mentioned for the columns).
3. sortrows(T) function can be used to sort the rows of the table either in descending or ascending order. For sorting rows based on a particular attribute, we need to use sortrows(T,'attributename').

Quiz

Suppose T is a table that contains some data. What is the difference between T and T(:,:) when typed on command window.

Practice.

Read the iris dataset. Write a statement for selecting rows 5-10 corresponding to all columns.

Answers on next page.

1. There is no difference between T and T(:,:)
2. T(5:10,:)

Practice

Let us suppose we have the following matrix

a =

0.8147 0.9134 0.2785

0.9058 0.6324 0.5469

0.1270 0.0975 0.9575

Compute row wise min, max and mean by taking the transpose of the matrix. The final answer representing the row wise min, max and mean should displayed in row wise fashion. As an example the min should be displayed like

ans =

0.2785

0.5469

0.0975

Answer on next page.

Answer: Correct answers Min(a')', max(a')' and mean(a')'.