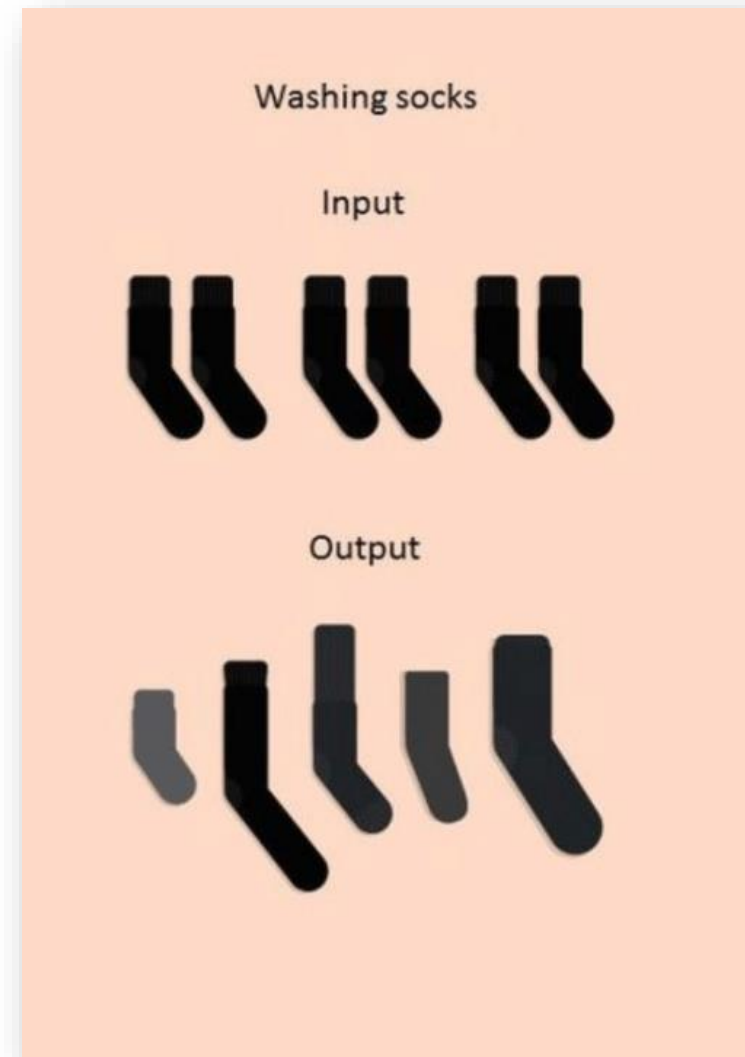


Load data and save your results

## BASIC INPUT/OUTPUT



# Topics

- **Introduction:** GUI and basic calculations
- **Coding 1:** Scripts, style, and variable classes
- **Coding 2:** Control statements and loops
- **Visualization 1:** Basics, subplots, get and set
- **Coding 3:** Functions
- **Visualization 2:** Descriptive plots
- **Coding 4:** **Basic input and output**
- **Visualization 3:** Distribution and 3D plots
- **Coding 5:** Input and output specials – last lecture before holidays
- **Machine Learning 1:** Introduction and dimension reduction
- **Machine Learning 2:** Clustering
- **Machine Learning 3:** Classification
- **Coding 6:** Efficiency and debugging basics
- **Coding 7:** Advanced functions and debugging

# Input

- Copy & Paste txt into script
  - Yeah...
- Load .txt files
- Load .mat files
  - Loads a MATLAB data file into the workspace
  - `data = load(filename')` stores as a struct
  - Works also without ()
- Uigetfile gives you a filename and filepath to load
- Csvread reads comma-separated values
- Dlmread reads with specifiable delimiters
- Xlsread reads Excel, gives [numbers, text, raw\_cell]



# Output

- Save(filename), save(filename,variables)
  - Saves entire workspace or specified variables into .mat file
  - Works also without ()
- Csvwrite writes comma-separated values
- Dlmwrite writes with a specifieable delimiter
- Xlswrite writes Excel files, needs Excel installed

# Complex File Reading

- fopen, fprintf, fclose
  - Powerful and complex file writing operators
  - Open file, get an ID, write into the file, close (finalize) the file
- Fopen, feof, fgetl, sscanf, fclose
  - Powerful and complex file reading operators
  - Open file, get ID, check if already at the end of file, read a single line, convert according to format, close file