UW CSE 190p Section

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Before We Start

• Create and remember save every code and steps you try today!

• If you have any question about today’s material, email your report to TA.
Outlines

• Visualization: plot
Plot Basics

• Line
  – Color
    • b : blue
    • g : green
    • r : red
    • c : cyan
    • m : magenta
    • y : yellow
    • k : black
    • w : white
  – Width

• Marker
plt.plot(t, f(t), color='r', linewidth=2.0)

plt.setp(lines, color='r', linewidth=2.0)

plt.setp(lines, 'color', 'r', 'linewidth', 2.0)
Plot Basic Exercise

• Plot \((x-2)^2-10\), \(-10 < x < 10\), line color red, dashed line, line width 3.0

• Plot again using green triangular markers, step the marker by 1.5
Plot Basics

- Line graph
- Bar graph
- Scatter plot
Figure Attribute

• Axis
• Grid
• Label
• Title
• Figure
  – Multiple figures
  – Multiple plots in the same graph
  – Multiple graphs in the same figure, i.e., subplots
Exercise

• Scatter plot of random 100 points between x:[0,1] and y:[5,7]

• Make the axis between x:[-0.5,1.5] and y:[4.5,7.5]

• Add dotted grid, step by 0.5

• Add title as “Random Scatter”
Legends, Labels, Decorations

• Legend
• Text
• Annotation
Exercise

\[ x = [1, 2, 3, 4, 5, 6] \]
\[ y1 = [1675, 2979, 4356, 3432, 6851, 5245] \]
\[ y2 = [3163, 4198, 7021, 2134, 2338, 4598] \]

- Create figure, plot in two separate plots
- Create a new figure, plot both in one
- Add max annotations of y1 and y2
- Add legend, xlabel “Year”, ylabel ”Earning”
Questions?
Homework/Quiz Questions?