DES 0523-01 Information Design I: Data Visualization Fall 2022

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1.2 Generate graphs

Download a PDF of this page.

Download a step-by-step PDF to complete this assignment. The PDF also includes some video links.

Project 1 is a 3-week project composed of three parts:

Part 1: 1.1 Prepare datasets

This page is part 2: 1.2 Generate graphs (line, bar, scatterplot)

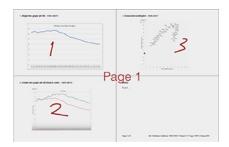
Part 3: 1.3 Clean up and format final graphs in Illustrator

In this assignment, you will use the two breast cancer datasets from assignment 1.1 to generate a series of graphs (data visualizations): line graphs, bar charts, and scatterplots.

Follow the step-by-step PDF to produce line, bar, and scatterplot charts using Excel, Tableau, and R. You will make 12 graphs using these programs. No special color scheme or typographic styles is yet considered, only the output of the "raw" graphs. I do suggest some custom colors for #6 Double bar chart in Tableau (see step-by-step PDF). The exported graphs should always be vectors and never just pixels: Command Y (on Mac) to check if vectors are still visible in outline view in Illustrator.

After you generate the graphs, print / save as / export them as PDFs. Play around with page setup to make sure the full graphs are included. Sometimes what looks like a cut-off graph in the PDF will be restored when opened in Illustrator if you do the following: Select all, Object --> Clipping mask --> Release. Repeat as needed. This will show the missing parts (off the artboard) which can now be restored. Make sure everything is there, including labels.

Select 9 of the saved 12 graphs and place them in the 11x17 templates. Each page has four panels, 3 for the graphs and one for notes. It's up to you how to group the graphs in each page. For example you could place a line, bar, and scatterloot on one panel or use different combinations. The pic below is just for reference. Later, in assignment 1.3, you will select 3 out of these 9 graph to be cleaned up and placed on a single page layout.







When done with all the pages, save each page as a separate PDF adding your name to the file, for example: **trogu_1.2_page1.pdf**. I am providing an inDesign template which already has 3 pages; also 3 separate Illustrator templates, one for each page. Edit the colophon with your roster number (use 00 until list is updated) -- **roster list is here** -- and your first and last name. Edit the titles for each graph as needed.

trogu_1.2_page1.pdf

trogu_1.2_page2.pdf

trogu_1.2_page3.pdf

Upload the three files by the deadline.

The max file size is set to 50 MB.

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Printing and exporting tips:

Excel: if the text is garbled after you open the saved PDF in Illustrator, go back to Excel and save the graph using Print/Save as Adobe PDF (not just Save as PDF). This should fix it.

Links: Do not use the "link" option when placing the graphs into the Illustrator templates, or they might be placed as pixel images and they might not show at all when I open the files. --> You can always go back and check in your links panel if you have accidental links. If you do, to embed all links, click the hamburger menu in the links panel and select "embed images/links".

Adding virtual printer: In some programs (Tableau for example) you can't Print/Save as PDF unless a "printer" is already installed in your system preferences. On a Mac, go to System Preferences / Printers / Add Printer / Click IP (small world icon between Default and Windows printer icons) / Address: localhost (one-word-all-lower-case) / Wait a few seconds / Use: Generic PostScript Printer / Add. This will create a virtual printer which is very handy when saving as PDF, allowing you to set up your own format, even large ones like tabloid which are not available on your typical printer (if you have one). This description is for Mac, follow similar steps in menu when adding a printer in Windows.

Save as PDF from Tableau Public (not preferred). You should install Tableau Desktop (one year license): Print ---> Save as PDF. If you instead installed Tableau Public, you can't print/Save as PDF. You can publish the chart to Tableau Online. After it's published, download the graph as a PDF from the webpage. Install Tableau Desktop so you have all the above options in one program.

If desired, you can view this 30-minute video: **Generate Graphs** -- however the step-by-step PDF should be sufficient to finish the graphs. The sections in the video are described below.

From **start** to 11:19 – Project and R matrix description.

Line graphs 1 (Excel), 2 (Excel & Tableau), & 3 (Tableau) description using printed R matrix. from 11:19 to 21:58

Bar charts 4 (Excel & RStudio), 5 (Excel), & 6 (Tableau & Excel) description using printed R matrix. from 21:58 to 31:16

Scatterplots 7 (RStudio), 8 (RStudio), & 9 (Tableau) description.

From <u>31:16</u> to end

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Due date Tuesday, September 6, 2022, 9:00 AM

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