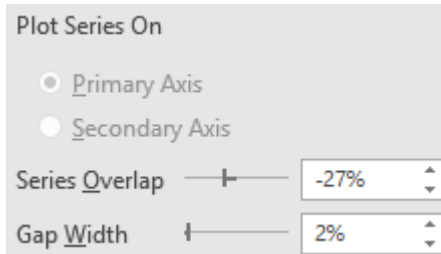





Instructions. Make histograms of Music and Pop, a Scatter Plot of Age vs. Finances, and a box and whisker plot for Music, Pop, Movies, Regret, Charity Friends, and Finance.

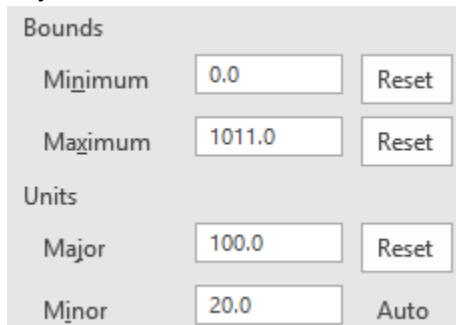
1. Go to the Assumptions tab.
2. Create histogram.

- a. Select column with frequency →  →  → 2D Clustered Column (First Option)





- b. Double click bar on graph. → 
- c. Rename Graph. Double click on title and name after variable (Music or Pop).

- d. Adjust vertical axis. Double click vertical axis variable on chart. → 



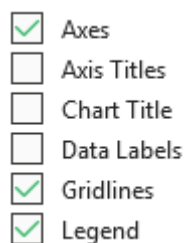
3. Repeat with second variable (either Music or Pop)
4. Create scatterplot.


- a. Select both Finances and Pop by holding down the Ctrl button →  →  → Scatter
- b. Rename the graph Finances vs. Age by double clicking on the title
- c. Make the graph bigger by selecting the dot in the corner of the graph and dragging outward.

5. Create box and whiskers plot.

- a. Select the columns that contain the variables Music, Pop, Movies, Regret, Charity Friends, and

Finances. →  →  → Box and Whisker



- b. Click on chart. → 
- c. Delete the 1 at the bottom by double clicking on it and pushing the delete button on your keyboard.



Data: This dataset was collected from 1010 statistics students and their friends at the Comenius University in Bratislava. The survey was administered in Slovak language and later translated into English.

1. Download the dataset Young People Survey_Excel Visualization and questionnaire from <https://github.com/AMDeLouize/Statistics-Workshops>. Save the dataset to the computer.

2. Go to the Correlation tab. → Select the Column Music_Dichotamized →

Find what: 1
Replace with: Does not Greatly Enjoy Music

Replace →

Find what: 2
Replace with: Greatly Enjoys Music

3. Repeat last step with the following replacement:

Choose the data that you want to analyze

☒ Select a table or range

Table/Range: Correlation!\$A:\$E

☐ Use an external data source

Choose Connection...

Connection name:

☐ Use this workbook's Data Model

Choose where you want the PivotChart to be placed

☐ New Worksheet

☒ Existing Worksheet

Location: Correlation!\$D\$14

Choose whether you want to analyze multiple tables

☒ Add this data to the Data Model

4. Create chart. Insert → PivotChart →

Axis (Categories): Music_Dichotamized

Σ Values: Sum of Movies

Value Field Settings → Average

5. Change to line graph. Design → Change Chart Type → Line → OK

6. Remove missing music data. Music_Dichotamized → Unselect Blank → OK

7. Remove title and legend. Click on Chart.

8. Change range of and look of Movie Axis. Double click on vertical axis.

Chart Elements

- ☒ Axes
- ☐ Axis Titles
- ☐ Chart Title
- ☐ Data Labels
- ☐ Data Table
- ☐ Error Bars
- ☒ Gridlines
- ☐ Legend
- ☐ Trendline
- ☐ Up/Down Bars

Axis Options

Minimum: 1.0

Maximum: 5.0

Units

Major: 0.5

Minor: 0.1

Tick Marks

Minor type: Inside

Format

Shape Outline → White

9. Remove line around outside of chart. Select chart. →

→ Shape Outline → White

10. Optional. Change Color of Line. Double click on line. →

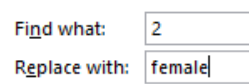
→ Color

Instructions. Create a bar chart comparing women's ratings of romantic movies to men's.

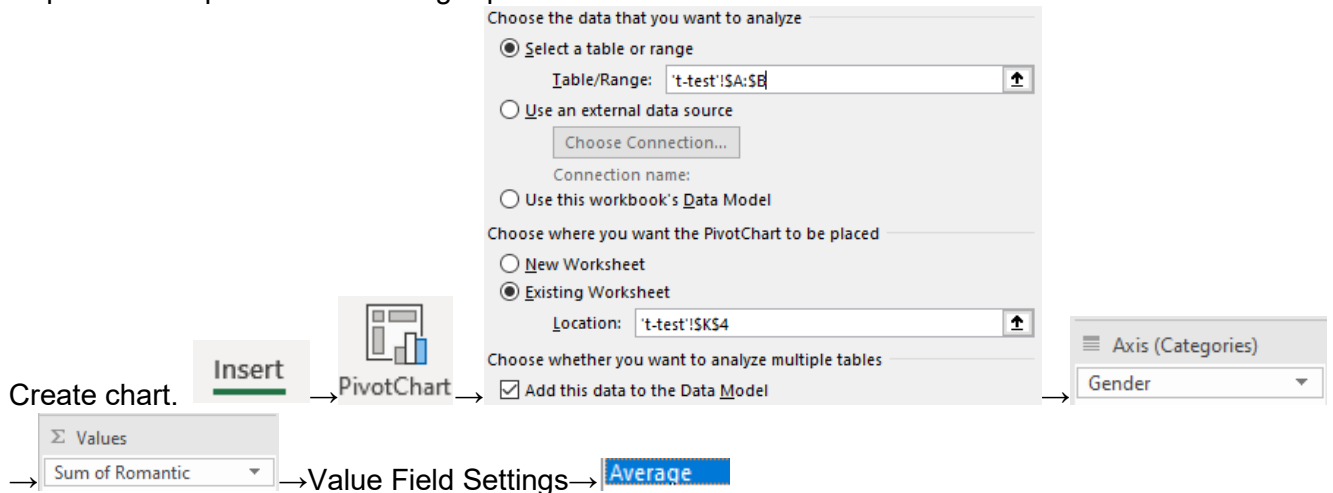
1. Go to the t-test tab. → Select the Column Gender →



2. Repeat last step with the following replacement:



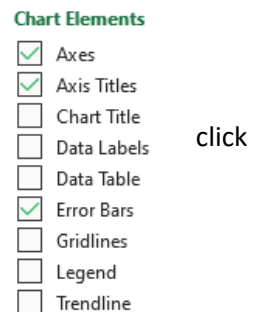
3. Create chart.



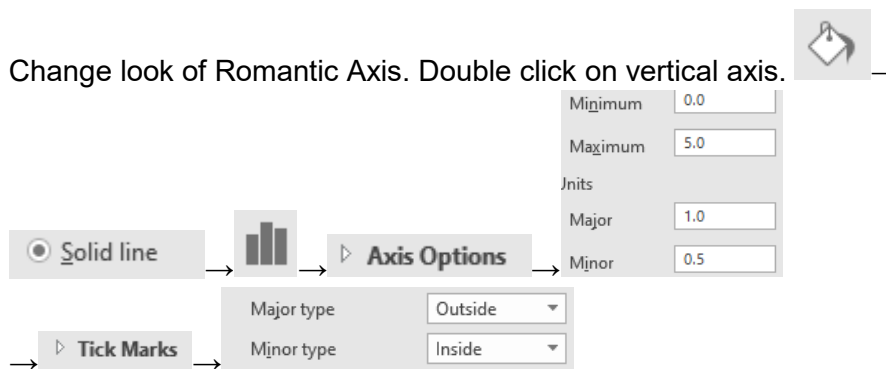
4. Remove missing gender data. Gender → Unselect Blank → OK

5. Remove title, legend, gridlines, and add error bars and axis titles. Click on Chart.

6. Name the axis. Double click vertical axis and label Romantic Movie Preference and double horizontal axis and label Gender.



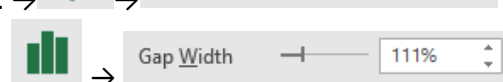
7. Change look of Romantic Axis. Double click on vertical axis.



8. Change color of Gender Axis. Double Click Gender Axis. →



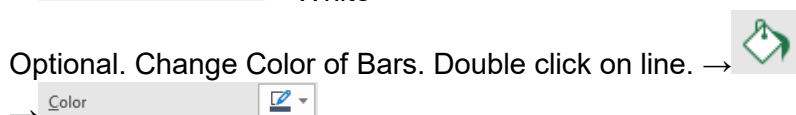
9. Make gap between bars shorter. Double click a bar. →



10. Remove line around outside of chart. Select chart. →



11. Optional. Change Color of Bars. Double click on line. →







Instructions. Create a bar chart comparing the finances of women never, social, and heavy drinkers to men never, social, and heavy drinkers.


1. Make a bar graph. Go to the Two-Way ANOVA tab. → Select the area around the mean graph:

	Never	Social	Heavy
Male	3.163636364	3.088983051	2.52991453
Female	3.388059701	3.141486811	2.692307692

→ Select  in the bottom right corner of your selection. Choose charts, then clustered.

2. Make a graph to see the interaction. Copy and paste the chart. Select the second chart. → **Insert** →

 → **Line**

3. For the bar chart, remove title, and add error bars and axis titles. Click on Chart.  →

4. Name the axis. Double click vertical axis and label Propensity to Save Money and double click horizontal axis and label Alcohol Drinking Pattern.

5. Change scale of y axis. Double click on vertical axis.

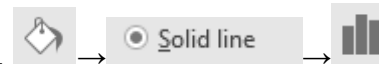
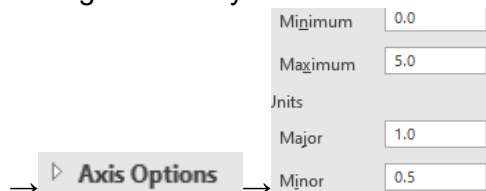



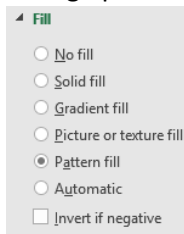


Chart Elements

- ☒ Axes
- ☒ Axis Titles
- ☐ Chart Title
- ☐ Data Labels
- ☐ Data Table
- ☒ Error Bars
- ☒ Gridlines
- ☒ Legend
- ☐ Trendline

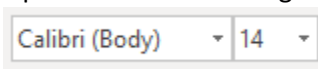
6. Change color of bars. Double Click bar. →  → **Color** 

7. Change pattern of bars for people who are colorblind and black and white printing. Double click bar →  →



→ Pick a pattern that is not too distracting and can be seen in the legend

- a. Optional. Re-size the legend to see pattern you chose. Select Legend. → **Home** →



→ Select circle in corner of Legend and drag outward.

8. Remove line around outside of chart. Select chart. → **Format**

→ **Shape Outline** → **White**

→ **Color** 

