



# **Recitation 15**

## **Learning Objectives:**

1. Creating a CSV file with CPP.
2. Opening it in Microsoft Excel.
3. Create a Chart
4. Calculating:
  - a. Average
  - b. Standard Deviation

Best of Luck for you Project!



### **Creating a CSV file with CPP:**

Download the csvCreation.cpp file from moodle. It has the code to create a csv file. This csv file will contain Employee Name and Employee salary for 2018, 2019 and 2020.

Execute the .cpp code and proceed to the next step.

### **Opening it in Microsoft Excel:**

Use Microsoft Office 365 provided by the University or any other version of office that has excel. The instructions in this guide will be specifically for the Office 365 version, however instructions for all versions will be almost the same, with minor variation.

To Open the file with Excel right click on the csv file and select open with Microsoft Excel.



# CSCI 2270 – Data Structures and Algorithms

Instructor: Hoenigman/Zagrodzki/Zietz

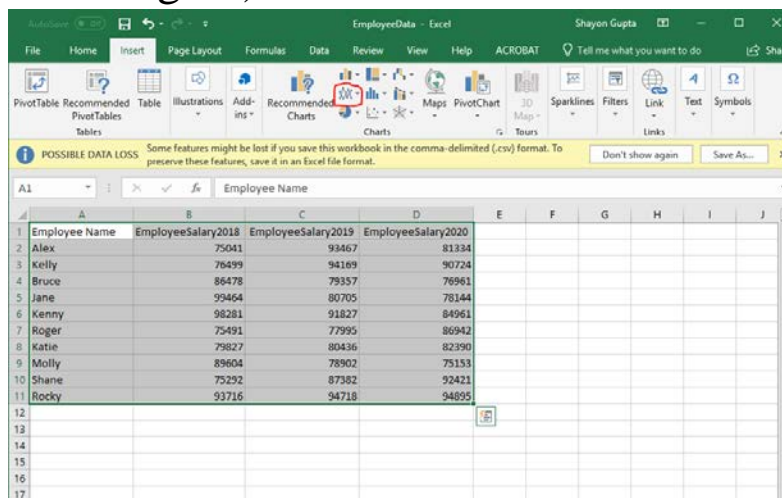
Follow the instructions carefully to create a chart, this is your Recitation Exercise as well.

## Creating a chart:

### 1. Select the Data.

	A	B	C	D	E	F	G	H	I	J
1	Employee Name	EmployeeSalary2018	EmployeeSalary2019	EmployeeSalary2020						
2	Alex	75041	93467	81334						
3	Kelly	76499	94169	90724						
4	Bruce	86478	79357	76961						
5	Jane	99464	80705	78144						
6	Kenny	98281	91827	84961						
7	Roger	75491	77995	86942						
8	Katie	79827	80436	82390						
9	Molly	89604	78902	75153						
10	Shane	75292	87382	92421						
11	Rocky	93716	94718	94895						
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### 2. Click Insert -> Chart Type (I have circled the type in the figure). Select a Line Chart.

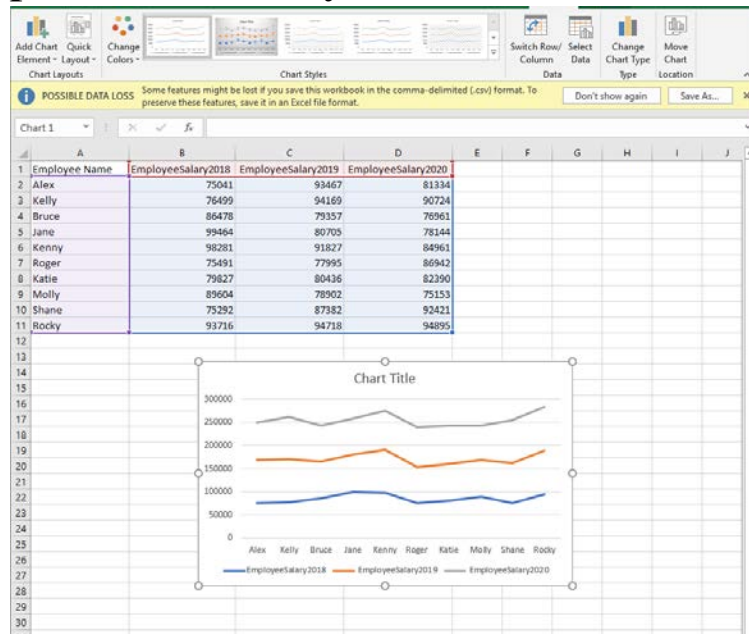




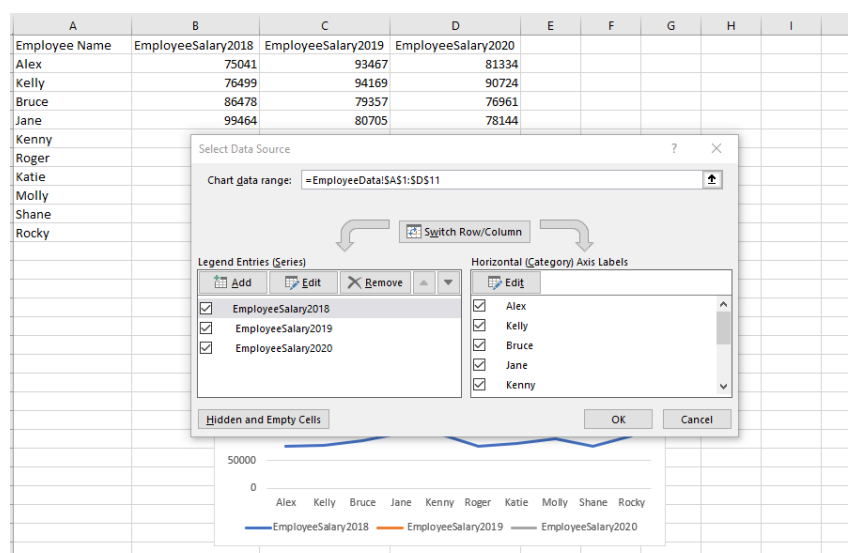
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3. We have the chart now, but the axes are not what we want. We want the salary of each employee plotted for each year.



4. Right Click on the Chart-> Select Data -> Switch Row/Column.

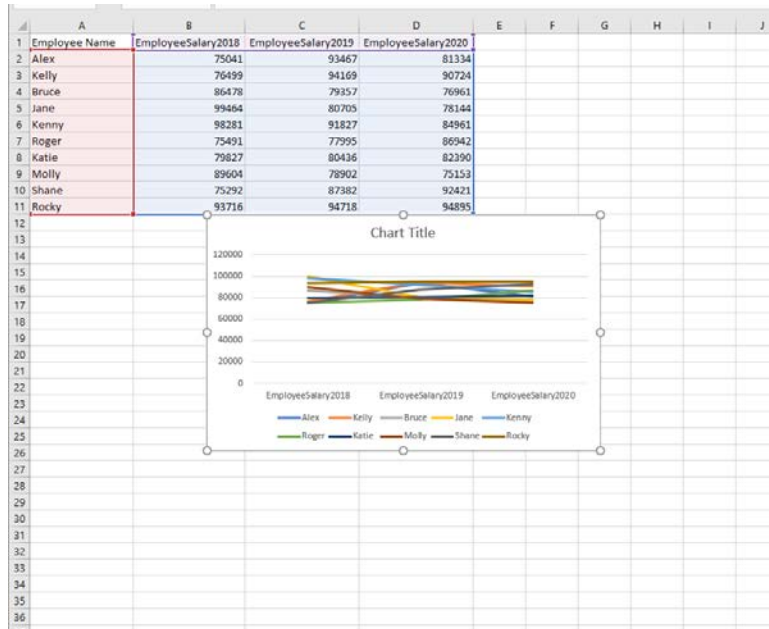




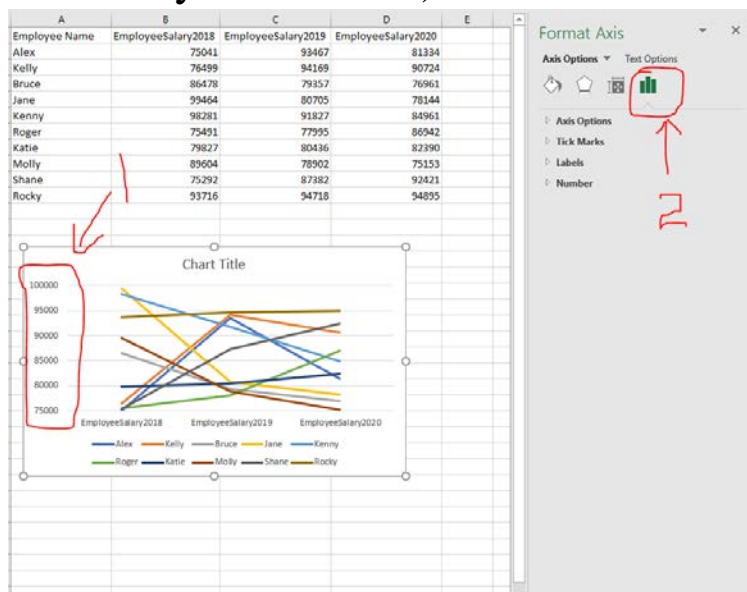
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5. Now we have the correct chart but the data is cramped. We need to fix that next.



6. Now double click on the y-axis labels. Then click on the axis-options. Set the minimum value to 75000 and maximum value to 100000 (the range of our salary in the code). Voila! The chart is fixed.

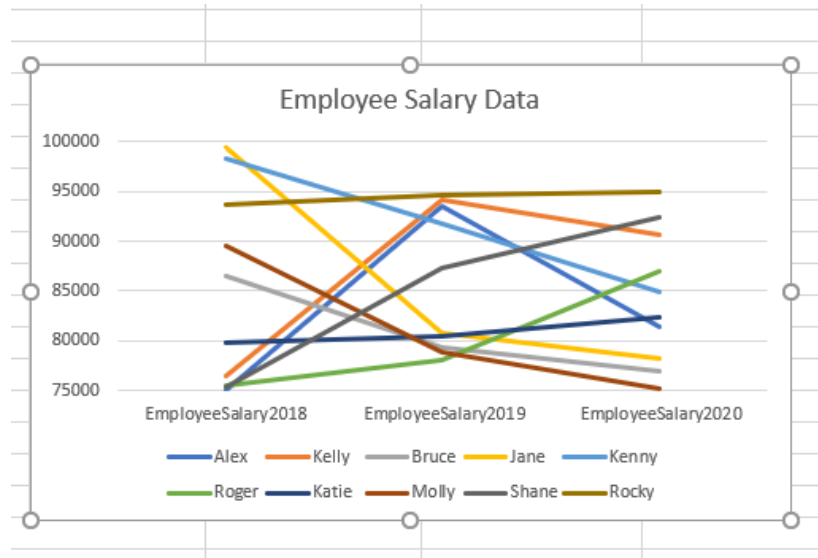




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7. Fixe the chart name, format it the way you like and you're done.





### Calculation:

#### Average:

Type “=AVERAGE(” then select the range of cells you want to calculate the average over then type “)” and press enter.

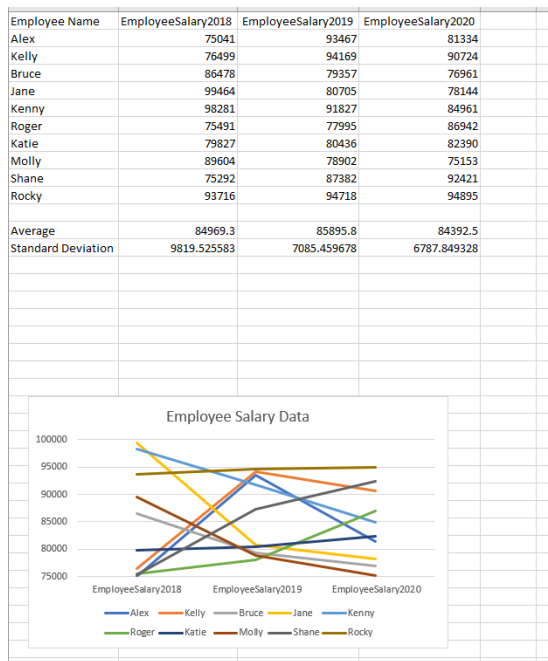
#### Standard Deviation:

Type “=STDEV.S(” then select the range of cells you want to calculate the average over then type “)” and press enter.

### Finishing Off:

Save your file as EmployeeData.xlsx before exiting excel!  
Otherwise you will lose the chart!

This is how it should finally look:



## Well Done!