

## ENGR 1181 | Class 8: Excel Data Collection and Analysis

### Assignment

#### Instructions

“A small sports jersey apparel store on Lane Avenue, close to The Ohio State University, Columbus campus, is considering expanding their business and opening another store. The proprietor has enlisted your services to analyze the sales data for the main products to determine the financial viability of such a move.

You have been provided with a log book that lists the following sales figures. These figures are also provided in a Microsoft Excel spreadsheet called **Class\_08\_Application\_Seed.xlsx**, available on Carmen.

Month	Number of Products Sold					Expenses
	NFL Jerseys	NBA Jerseys	MLB Jerseys	OSU jerseys	NHL Jerseys	
January	157	212	155	1247	226	\$ 143,795.00
February	158	206	127	1633	241	\$ 154,391.00
March	200	214	129	1611	236	\$ 161,103.00
April	191	301	130	1575	221	\$ 163,657.00
May	155	303	157	1442	249	\$ 158,580.00
June	158	342	153	1599	205	\$ 170,056.00
July	166	265	156	1454	230	\$ 151,171.00
August	156	230	154	1445	200	\$ 149,196.00
September	176	281	159	1588	241	\$ 169,441.00
October	198	348	129	1324	204	\$ 150,114.00
November	167	281	125	1237	203	\$ 144,705.00
December	170	349	148	1482	206	\$ 157,485.00

You have also been provided with the price of each of the main products. NFL jerseys are sold for \$150.00, while NBA and MLB jerseys sell for \$80.00 and \$120.00 respectively. OSU jerseys sell for \$90.00, and NHL jerseys are \$70.00 each.

Your job is to use Microsoft Excel to perform the following tasks. Use cell referencing to ensure that if the owner changes any prices or quantities the chart will update automatically.

1. Complete the table by calculating the revenue for each month.
2. Create a column chart showing each month's overall revenue and expenses. Be sure to include axis labels, chart title, and other required chart elements. Assume black and white printing.
3. Using the built-in functions in Excel, determine the average, maximum, minimum, and standard deviation of the monthly revenue.
4. Using cell referencing across worksheets and the provided tables in Excel, answer the following questions in the provided locations on the 'Calculations' tab of the Excel Worksheet.
  - a. In what month did the shop experience the highest profit (revenue – expenses)?

*ENGR 1181 Class 5: Excel Graphing*

Preparation Material

- b. What was the total profit for the year?
- c. Which of the products had the smallest overall revenue during the year? How much did it make?
- d. Which of the products had the largest overall revenue during the year? How much did it make?

Submit the two Excel Worksheets. Make sure to include your name, seat number, etc. on all documents.