**Northwind – Data Analysis**

**Our leading question:**

How can we increase Northwind’s profits by making data-driven decisions?

**Pre-Analysis Questions:**

**Let’s present a simple overview of our sales today**

* What’s our data range ? (SQL) (**DONE)**
* Line Graph of our sales history (Tableau) (**DONE)**
* Total sales until now in **$** (SQL) (**DONE)**
* Average sales/ Month (Tableau) (**DONE)**

**How fast are we growing?**

* Total sales growth % / time period (Tableau) (**DONE**)
* Average growth % / time period (SQL) **(DONE)**

**What affects profit?**

* Find correlations between profit and other variables. (Tableau) **(DONE)**

**What are our most successful products?**

* Create a table of total sales for each product **(DONE TABLEAU)**
* How much of our total earnings (%) come from each product ? **(DONE SQL)**
* What are the top categories? **(DONE)**

**How do our sales compare between locations?**

* What are our leading countries/cities? **(DONE)**
* Leading by order volume **(DONE)**
* Leading by profits **(DONE)**
* Do people in certain areas prefer different products? (top product by sales per country) **(DONE)**

**When do people order the most ?**

* WeekDay **(DONE)**
* Month **(DONE)**

**Overview of our deliveries data**

* Average delivery time:
  + Overall Avg. **(DONE SQL)**
  + Per location (Northwind.Orders -> ShipCountry, ShipCity) **(DONE SQL)**
  + Per Shipper **(DONE SQL)**
  + Freight Correlation (shipment size) **(DONE Tableau)**
  + Graph over time (month/month) **(DONE Tableau)**
  + Graph over month of year – What are the slowest delivery months in the year? **(DONE SQL)**
* Late deliveries:

How many of our total deliveries are past their maximum allowed waiting time?

* + Overall % **(DONE)**
  + Per location (Northwind.Orders -> ShipCountry, ShipCity) **(DONE)**
    - Filtering out cities with very few deliveries sent to them (< 5), so they don’t skew our data.
  + Per Shipper **(DONE)**
  + Freight Correlation (shipment size) **(DONE)**
    - There is no correlation.
  + Graph Over time (month/month) **(DONE)**
* Which locations have the fastest deliveries?
* Which shipping company is the best/ worst?
* Are we getting better at deliveries?

**Who are our most profitable customers?**

* Create a table containing our top 10 customers **(DONE)**
* Where are they from? **(DONE)**
* Their total order costs **(DONE)**

**Who are our most profitable suppliers? (DONE)**

**Who are our most profitable shippers? (DONE)**

**Who are our most successful employees? (DONE)**

**Notes:**

1. Revisit all the sales calculations and take into consideration the costs of all of the products (UnitPrice in Northwind.Products) **(DONE)**
2. Find a way to include product availability and awaiting orders in our data
   1. Products out of stock **(DONE)**
   2. Rank suppliers by most-least amount of in-stock products (which suppliers should we focus on when ordering stock?) **(DONE)**
3. Finish Dashboards
4. Create Tableau Story out of dashboards (The presentation will be mostly made of screenshots from each tableau dashboard)
5. **Presentation**
   1. **Introduction**:
      1. Briefly describe Northwind and the purpose of your analysis.
      2. Introduce the business question and your main research questions.
   2. **Main Analysis**:
      1. Present key matrices of the company and the data.
      2. For each research question, outline your approach, including:
         1. Summarize your main findings for each question while using visualization (screenshots of the dashboard you created OR presenting directly the dashboard, while coming back to the presentation for the conclusions and recommendations.
         2. Provide actionable recommendations based on your analysis.
   3. **Appendix**:
      1. Include all SQL queries, Excel calculations, Tableau screenshots, and any additional resources you used.
   4. **Visualize database** (perhaps screenshot from tableau**)**