SQL Queries & Data Visualizations:

Database: AdventureWorksLT

Query tool: any one you want

BI Tool: Microsoft Power BI

Notes::
- Sales $ is either from SalesOrderHeader SubTotal or SalesOrderDetail Line Total
- Sales $ means total sales unless specific group of sales mentioned such as Product Category Sales $ or if drilled down in product hierarchy
- Customers (people) should be a concatenation of "lastname, firstname"
- Customer that is a company is actually a reseller such as a bike shop

Questions: SQL queries & data visualizations (visualizations requested below)

a) Total sales $

- Using SalesOrderHeader (ties to customer)

- Using SalesOrderDetail (ties to product)

- Comparison querying with SalesOrderHeader vs SalesOrderDetail

b) Total sales $ by country – ranked/sorted (highest to lowest)

c) Total sales $ by country, state & city

d) Total sales $ by customer (person) – ranked/sorted (highest to lowest)

e) Total sales $ & by customer (company) – ranked/sorted (highest to lowest)

f) Sales $ by product category hierarchy – Product & vGetAllCategories

g) Sales $ by product name – ranked/sorted (highest to lowest)

h) Sales $ by Company (Reseller)

i) Product Category Sales $ by Company (Reseller)

Data Visualizations

a) Total sales $

- SalesOrderHeader (ties to customer)

  - Create Card

- SalesOrderDetail (ties to product)

  - Create Card

b) Total sales $ by country – ranked/sorted (highest to lowest)

- Create table & treemap

c) Total sales $ by country, state & city (be able to drill)

- Create: filter (on country), table & matrix

- Create: filter (on country), matrix & stacked bar

- Create: filter (on country), matrix & treemap

- Create map using location of city

d) Total sales $ by customer (person) – ranked/sorted (highest to lowest)

- Create: filter (on country), table & stacked bar

e) Total sales $ & by customer (company) – ranked/sorted (highest to lowest)

- Create: filter (on country), table & stacked bar

f) Sales $ by product category hierarchy – Product & vGetAllCategories (need to be able to drill)

- Create: filter (on country), matrix, stacked bar & treemap

g) Sales $ by product name – ranked/sorted (highest to lowest)

- Use table & treemap

h) Sales $ by Company (Reseller)

- Create filter (on country), table & stacked bar

i) Product Category Sales $ by Company (Reseller)

- Create filter (on country), table & stacked bar

Deliverables:

- Submit a doc or text file with each query
  - List query
  - List totals for measures, such as sales, and total rows
- Submit an Excel document with the results of each query placed in its own worksheet
- Submit PDF generated from your Power BI with data visualizations
- Publish (or create) your visualizations on Power BI Service class workspace
  - Naming convention – AdventureWorksLT_ + NU email (before @Northeaster.edu)
    - Example: AdventureWorksLT_risherman