

## **Datern Spring 2024 Course worksheet and Project Description**

This document contains two worksheets and a project description that you may want to do alongside your report. Each content session will give you the required knowledge to be able to complete their respective worksheets (i.e. after the first session, complete worksheet 1 and after the second session, complete worksheet 2).

The project will consist of a finished report using all the features we have seen during this course. You are very welcome to recycle any of the visuals and features you have made on the worksheets for your final report – you do NOT have to make everything from scratch.

### **Worksheet 1 – Introduction into Visualisations in Power BI**

*Try to complete this worksheet before the second session of this mini course*

*This worksheet will help you become familiar and comfortable with the Power BI Visual and Dashboard/Report creation. We will ask some vague questions to get you to be more creative with your creations. However, we will also throw in some specific questions to get you using all parts of the software.*

Worksheet 1:

1. Insert the Northwind Traders dataset into your Power BI Desktop file.
2. Create a visual that will show the number of orders ordered over time. Which visual would be best for representing this information?
3. How many orders does each country make/receive?
4. How many orders does each country sell (by salesperson location)?
5. How many shipper companies are there?
6. How many sales did we make this year compared to last year?
7. Add a new page. On this new page create a Matrix/Table visual to show all the shipper names with the Min, Max, and Average prices of the sales they ship.
8. Look through what visuals you could import (this option is below all the Power BI visuals). Import one you think would help explain well how many sales the company has made.
9. You may have realised that Power BI automatically makes a title for all visualisations, but they're not always accurate or easy to understand. Change them so that someone that does not know how your dataset looks like would be able to understand them.
10. Import an image of the logo of Northwind Traders. You may want to change the colours of the visualisations of this page to match the company colours. Think about inclusivity with the colours that you use – is there any colours that do not go well together? Could a person with colour blindness read your report without struggling?

## Worksheet 2 – Medium Difficulty Power BI Visuals and Features

*You have been learning how to use more advanced visualisations and buttons. Do the following questions and be as creative as you want with it all.*

### Worksheet 2:

1. Add a Date slicer to all pages that are affected by time and sync these slicers. Format these to be dropdown slicers that have Select all as an option.
2. Add a bookmark to your report and call it **Bookmark Test**. Update this bookmark to be one of your existing pages. Once this has been updated add a button on one of the other pages that will have the action to go to this newly made bookmark.
3. On a new page create a visual that shows the number of sales sold by each employee. Duplicate this visual and have them side by side on the same page. Add a minimum of two relevant slicers to this page but make them only interact with one of the visuals using the Interactions option in the **Format** tab.
4. Sort the order of the customers by the amount of sales (lowest to highest).
5. Create a drill through page on your report to have a more in-depth page of information for Shippers and how many sales they ship.
6. Add a conditional format setting to one of your visuals. It doesn't matter which visual or value the conditional formatting is based on.
7. Make a page navigator button but do not show your tooltip and your drill through page as an option to navigate to (hint: you hide them).
8. Add a theme to your report to make it unique to your company, try and make it so your report would be readable and have useful functionality as an end user.
9. You have made a great amount of cool new additions to your report. For someone who has never used Power BI, it may be difficult to understand all the great things in your report - make a help panel in at least one of your pages for them to be able to utilize it to the max. Here is a link for a great tutorial on it: [https://www.youtube.com/watch?v=yYr\\_SlG8bpw](https://www.youtube.com/watch?v=yYr_SlG8bpw)

## **Final Project**

The final project you must submit to be awarded a certificate of completion of Datern's Spring Course is a complete dashboard/report. You are more than welcome to recycle anything and everything you have used in the worksheets above but you can also experiment with other visualisations or features to enhance your report even more.

We have taught you how to publish reports. For this project you do NOT need to publish anything. To publish you must have Power BI premium services, which you can use for a while with a free trial or by paying a membership. If you are interested, we invite you to investigate them but this course is designed so you do NOT have to use any of these paying services.

Remember that presentation is very important – if you make a report for a company but it is difficult to comprehend it will probably not be used by anyone at the company. If it is understandable and aesthetically pleasing (using the company's colours, all visuals matching the theme, etc...) it will probably be used by everyone, even higher ups in the company and in big meetings!

You can submit the final report in pbix form in Moodle (bottom of the web page there should be a project submission option).