Interactive Excel Dashboard- Performance of Cookies for the "Kevin Cookie Company"

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Brief

- The aim of this analysis is to find out how the Cookie company is performing and how to strategise for better business. I analysed the company data to create pivot table and chart analyses to better visualise how the cookies were performing and create an interactive sales dashboard.
- I wanted to know how the cookies were performing by country, the units sold by cookie, total revenue over time, and which countries are our biggest customers etc.
- My hypotheses:

-The USA will be our biggest customer (as cookies are quite traditional, popular US snacks)

-Chocolate chip cookies will sell the most units(they are traditional and most people eat chocolate chip cookies)

-Units sold and profit will be highest in December due to the Christmas period and people buying cookies as gifts or to have as Christmas snacks.

Dataset and Dataset structure

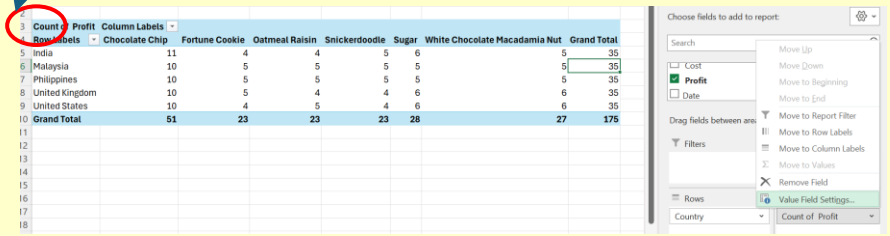
- Columns: Country, Product, Units Sold, Total Cost, Total Profit, Date - The dataset contains sales records for different products across various countries, including details on units sold, costs, profits, and dates. All of these columns were relevant in the analysis.
- We have 700 records of data
- I made my data into a table and changed the datatype of my columns, ensuring columns like Date had the date data type and Revenue, cost, profit and Profit margin had the currency data type. Units sold was numerical, Country and Product were text.

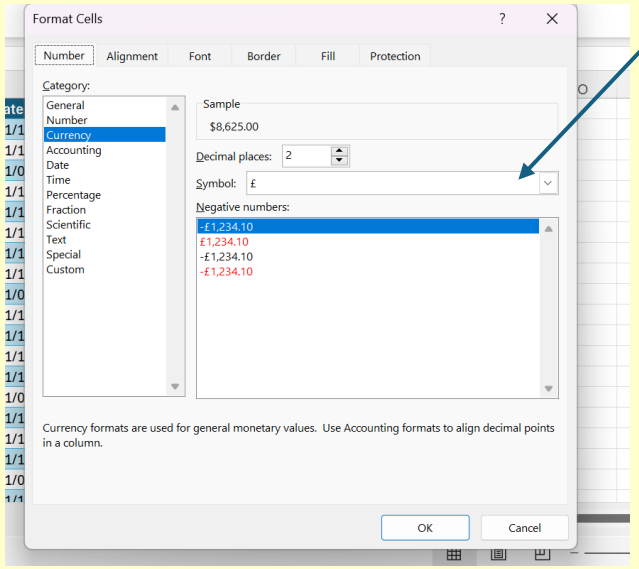
Problems in the dataset

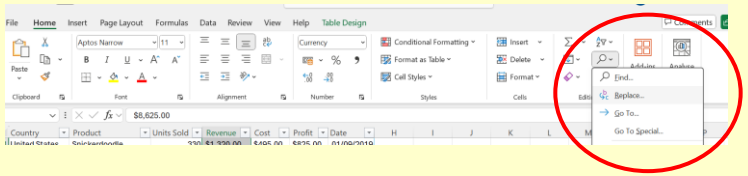
- The data was input strangely. The currency showed a $ sign but the cell formatting was actually in UK £. Therefore the dollar sign was manually inputted and was making the data be read as text (so we couldn’t perform calculations). So we needed to perform find and replace on the $ symbol to get rid of it.
- Steps shown in the following slide

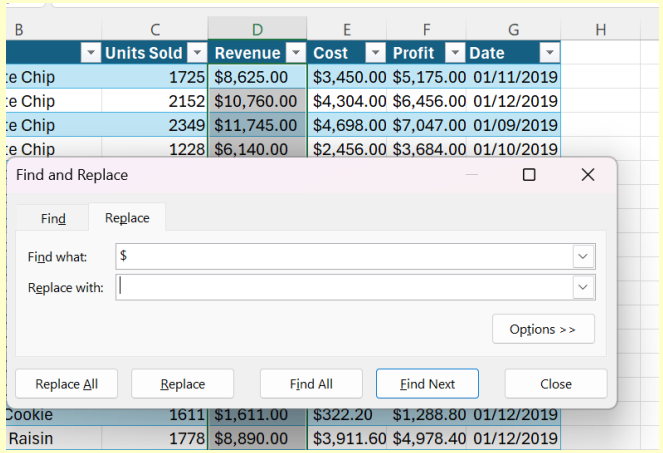
Data cleaning

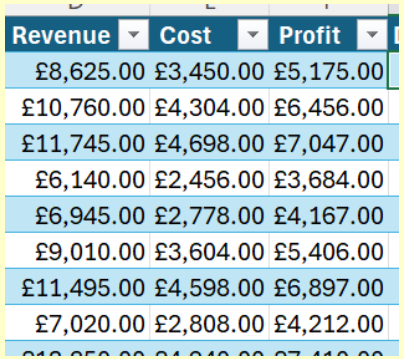
- Here, I wanted to sum the total profit. It came out as count, so I right clicked on profit in the values and went to value field setting and selected .sum- this didn't work- just returned 0s in our table.
- Going to our database sheet and right clicking to see cell format in the profit column I saw that they symbol was £, however in our table we see a $ sign meaning this has been inputted perhaps manually and is making the column be read as text.
- Next I did a find and replace of all the $ symbols in the Revenue, cost and profit columns and formatted the data type for the columns as currency.

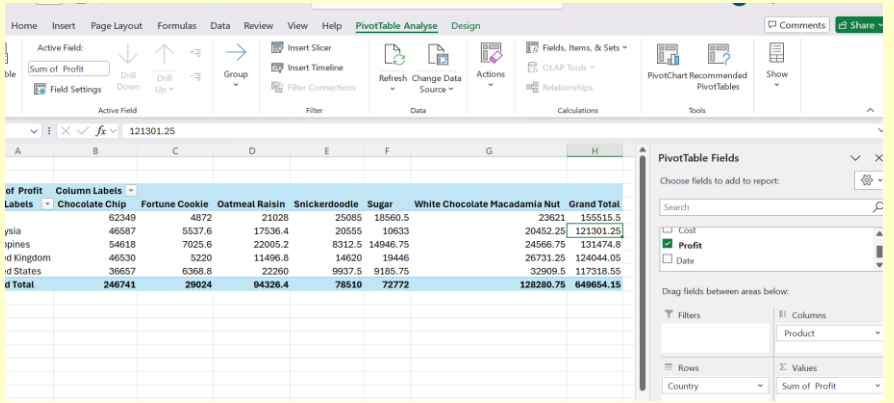




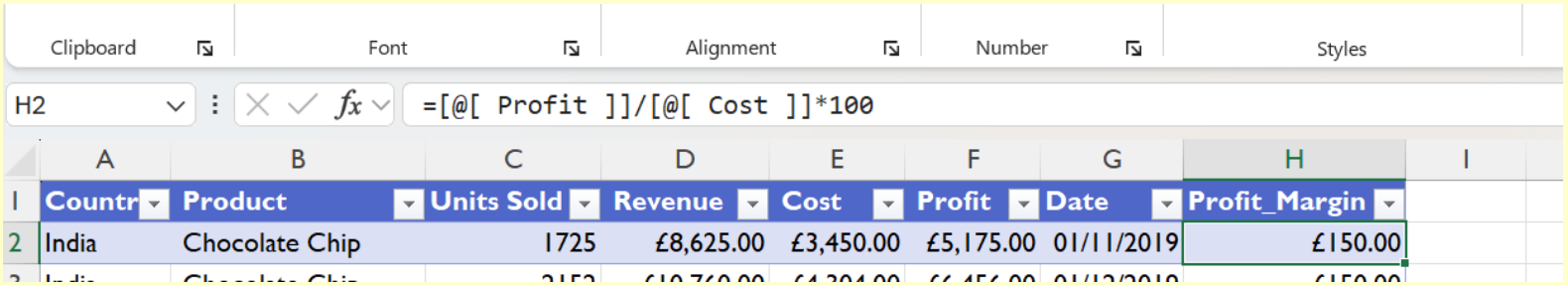






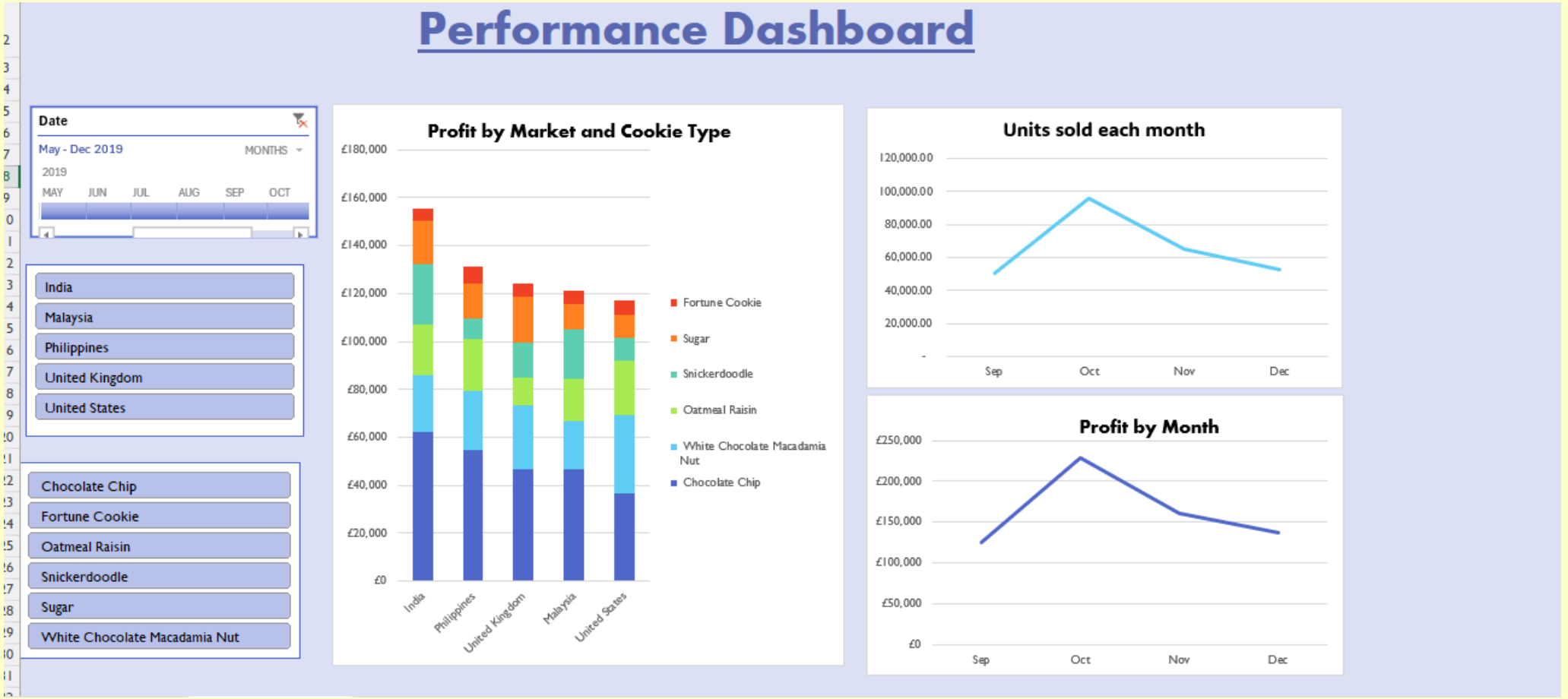


Data transformation

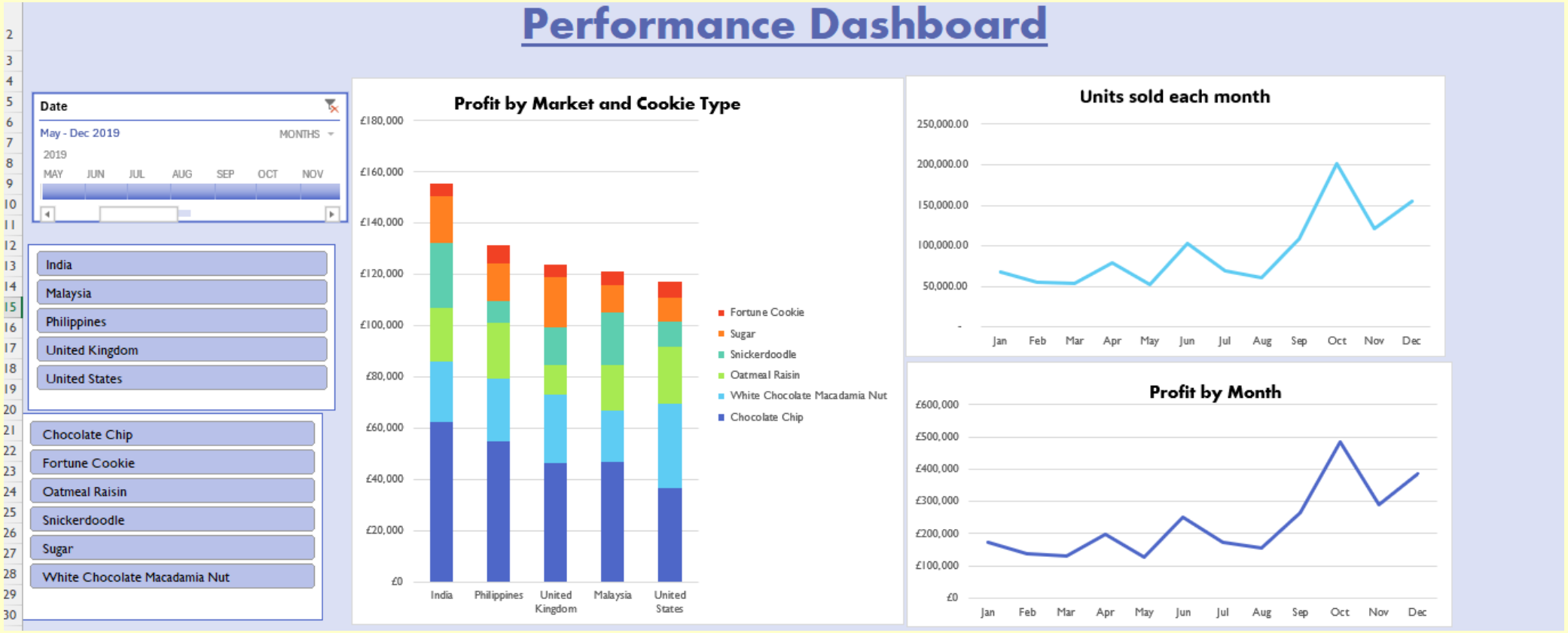


	A	B	C	D	E	F	G	H	I
1	Countr	Product	Units Sold	Revenue	Cost	Profit	Date	Profit_Margin	
2	India	Chocolate Chip	1725	£8,625.00	£3,450.00	£5,175.00	01/11/2019	£150.00	

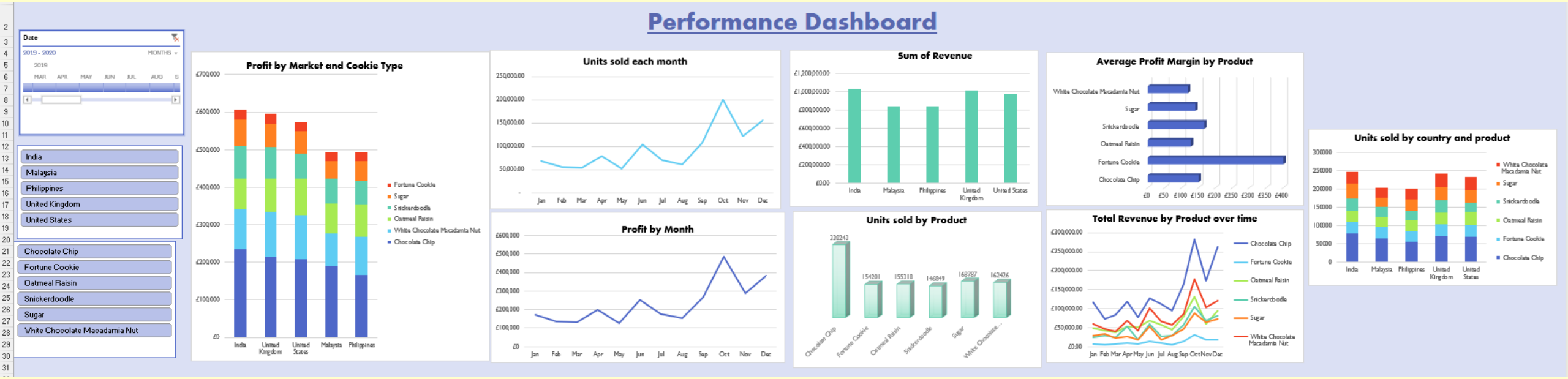
- I created a new column to see the profit margin
- My calculation was Profit/ Cost x 100



With only the 2019 data



- With 2020 data addded



Additional visualisations to visualise which were our best selling products (Units sold by Product graph). And the Average profit margin by product which showed the cookie that earned the most average profit.

Insights

- The dashboard interactivity helped provide a clear visualisation of my data and helped me to analyse and interpret the data as well as filter by month to see which were the months where we earned the most profit.
- My hypothesis about USA being our biggest customer was incorrect. India in fact were out biggest customers.
- I correctly predicted that Chocolate chip cookies would sell the most units as they are a quite popular simple cookie. Chocolate chip cookies sold the most units – 338243, almost double the next best seller which were sugar cookies (which sold 16787 units).
- I hypothesised that units sold and profit will be highest in December due to the Christmas period and people buying cookies as gifts or to have as Christmas snacks. This was incorrect. These figures peaked in October.
- Figures peaking in October hint towards people buying cookies for the holiday season (Halloween, Thanksgiving, Christmas)

Recommendations

- During May and August our units sold are really low. We should run promotions and sales- especially on popular products (chocolate chip cookies) during this period to encourage purchases.
- Further analysis is needed to figure out why there is such a drastic change in purchase behaviour between August and October
- Further analysis is needed to understand customer behaviour trends during low sales months.