**Getting Started with PivotTables**

1.

Download the course material and open up Bananas Sales.xlsx in *Excel* from the Datasets folder.

**Hint**

Navigate to the Datasets folder from the downloaded course material and open Bananas Sales.xlsx with *Excel*.

2.

* Create a *PivotTable* of the Account Sales History tab and place it in a new *Worksheet*.
* To keep things organized, rename the new sheet to PivotTable.

**Hint**

* Click *Insert* then *PivotTable*. Make sure the Table/Range input is 'Account Sales History'!$A$1:$M$2221.
* Check *New Worksheet*, then click OK.
* Double click on the *Worksheet* name at the bottom, then type PivotTable and hit Enter on your keyboard.

3.

In the *PivotTable* display the sum of Licenses Bought and the sum of Sales Amount. Using the *Value Fields Settings*:

* Format Sum of Licenses Bought as a number with a , separator and 0 decimal places.
* Format Sum of Sales Amount as a currency with 0 decimal places.

**Hint**

* Drag Licenses Bought and Sales Amount down to the *Values* section. They should automatically aggregate by Sum.
* Double click on the headers of the *PivotTable* to open up the *Field Settings*. Then click on *Number Format*.
* Select Number, 0 for the *Decimal places*, and check the box for *Use 1000 Separator (,)*.
* Repeat for the Sum of Sales Amount and in the *Number Format* section select Currency and 0 for the *Decimal places*.

4.

Continue your EDA process by adding the average of Sales Amount to the *PivotTable*.

* Rename the average calculation to Average of Sales Amount.
* Format it as a currency with 0 decimal places.

**Hint**

* Drag Sales Amount down again to the *Values* section. This should create a new field called Sum of Sales Amount2.
* Click on it and open the *Value Field Settings*, and set the summarization to Average.
* Right click on the Average of Sales Amount2 header, then select *Value Field Settings*.
* Type in Average of Sales Amount for the *Custom Name*.
* Double click on the headers of the *PivotTable* to open up the *Field Settings*. Then click on *Number Format*.
* Select Currency and 0 for the *Decimal places*.

5.

**What is the Average of Sales Amount? Round to the nearest dollar.**

**312**

**Calculated Fields in Pivot Tables**

1.

We want to analyze the KPIs by Subscription Type.

* Add this to the *PivotTable* to split them up by row.

**Hint**

* Drag Subscription Type to the *Rows* section in the *PivotTable*.

2.

Already, we can see that our analysis is getting more interesting.

* Create a *Calculated Field* that divides Sales Amount by Number of Users and call it Sales per Sub.

**Hint**

* Click on the *PivotTable* to make sure the *PivotTable Analyze* ribbon bar is showing.
* Under the *PivotTable Analyze* ribbon click *Fields, Items & Sets*, then *Calculated Field*.
* Set the *Name* to Sales per Sub.
* The Formula should be = 'Sales Amount'/ 'Number of Users'.
* Double click on the field names to easily bring them into the formula rather than typing.

3.

Add the sum of Sales per Sub to the *PivotTable* and format it as a currency with 0 decimal places.

**Hint**

* Drag Sales per Sub to the *Values* section. It should automatically set as a *Sum* aggregation.
* Double click on the *PivotTable* header, Sum of Sales per Sub to open up the *Field Settings*. Then click on *Number Format*. Select Currency and 0 for the *Decimal places*.

4.

This seems lower than expected. We want to find the sales per paying user, so let's try to use Licenses Bought in our denominator rather than Number of Users.

**Hint**

1. Click on the *PivotTable* to make sure the *PivotTable Analyze* ribbon bar is showing. Then click on the *PivotTable Analyze* ribbon bar, then click *Fields, Items & Sets*, then *Calculated Field*.
2. Select Sales per Sub from the dropdown menu.
3. Delete Number of Users and replace it with Licenses Bought. Your formula should look like this:

= 'Sales Amount'/ 'Licenses Bought'

1. Click OK to save the changes.

5.

**What is the average sales per paying subscription? Round to the nearest dollar. 20**

**Custom Grouping in Pivot Tables**

1.

* In the pivot table, create a group with Business, Enterprise, and Premium, and rename it Paid.
* Change the group name with Basic to Unpaid.

**Hint**

* Select Premium, Business, and Enterprise on the *PivotTable* by holding Ctrl and clicking on their *Row Labels*
* Then right click and select *Group*. This should create two groups.
* Rename the groups by clicking into the row headers and typing Paid and Unpaid.

2.

Rename Subscription Type2 to Paid Category.

**Hint**

* Open the *Field List* in the *PivotTable Analyze* ribbon.
* Locate Subscription Type2 in the *Rows* of the *PivotTable Fields*, then click on it and select *Value Field Settings*.
* Type Paid Category in the *Custom Name* box.

3.

Great! Let's take this a bit further by segmenting our data into groups by Licenses Bought to see if there are any trends.

* In the *PivotTable* display all the data for Licenses Bought by rows.

**Hint**

* Open the *Field List* in the *PivotTable Analyze* ribbon.
* Click and drag Sum of Licenses Bought from the *Values* section to the *Rows* section.

4.

Clean up the *PivotTable*:

* Remove Average of Sales Amount from the *PivotTable Fields*.
* Remove Sum of Sales per Sub from the *PivotTable Fields*.

**Hint**

Open the *Field List* in the *PivotTable Analyze* ribbon.

* Right click on any of the bucket values of Licenses Bought on the *PivotTable* and click *Subtotal Licenses Bought*.
* Click on Average of Sales Amount and select *Remove*.
* Click on Sum of Sales per Sub and select *Remove*.

5.

Create buckets for Licenses Bought by groups of 25 from 0 to 600.

**Hint**

Right click any of the number values of Licenses Bought on the *PivotTable* and select *Group*.

Make sure to check both boxes. The settings should be:

* *Starting at*: 0
* *Ending at*: 600
* *By*: 25

6.

Rearrange the *Rows* so that Licenses Bought is between Paid Category and Subscription Type.

**Hint**

Click and drag Licenses Bought in the *Rows* section so that the order is:

1. Paid Category
2. Licenses Bought
3. Subscription Type

7.

**What is the total sales amount of the Enterprise for the 25-49 bucket? Round to the nearest dollar. 4110.**

**Slicing data in PivotTables**

1.

In the *PivotTable Analyze* ribbon bar, you will find the *Filter* section.

* Insert a *Slicer* on the *PivotTable* of Subscription Type and filter for Business and Premium subscription types.

**Hint**

1. Select the *PivotTable Analyze* ribbon bar
2. Under the *Filter* section select *Insert Slicer*
3. Then select Subscription Type
4. Then click OK
5. Hold Ctrl and click on Business and Premium on the *Slicer* options so they are highlighted.

2.

Add Sales Month to the *Columns* section.

**Hint**

Open the *Field List* in the *PivotTable Analyze* ribbon. Then drag Sales Month from the *Field List* to *Columns section*.

3.

Adding dates usually causes the *PivotTables* to automatically create groups.

* Remove Months (Sales Month), Quarters (Sales Month), and Years (Sales Month) from the *PivotTable*.

**Hint**

* In the *Columns* section, there will be four variables showing.
* Remove Months (Sales Month), Quarters (Sales Month), and Months (Sales Month) from the *Columns* section by dragging them out of the area.

4.

Within the *Filter* section, you also have the option to add *Timeline* slicers, as well as general slicers.

* Insert a *Timeline* slicer to the *PivotTable* on Sales Month.

**Hint**

1. Select the *PivotTable Analyze* ribbon bar
2. Under the *Filter* section select *Insert Timeline*
3. Then select Sales Month
4. Then click OK

5.

Change the *Timeline* slicer to filter by quarters and filter for 2021 Q2.

**Hint**

1. Click on the *Timeline* dropdown menu and select *Quarters*.
2. Then click on Q2 under 2021.

6.

**Which bucket of licenses bought of saw a decrease in Sales between 5/1/2021 and 6/1/2021?**

* 0-24
* 25-49
* 50-74