# Dashboard Design Notes

Before designing the final dashboard, we copied the transformed data into a new Excel file called “amazon\_churn\_dashboard.xlsx” and we extended the dataset by creating three **extra columns**:

* **Age Group:** dividing customer into three age groups: Under 30, Mid Age (between 30 and 64) and Senior (65 years old or more).

=SI([@Age]<30;"Under 30";SI([@Age]>=65;"Senior";"Mid Age"))

* **Number of complaints / Account Length Ratio:** to be able to compare customers by number of complaints independently from the amount of time enrolled in the service.

=[@[Number of Complaints or Support]]/[@[Account Length (in months)]]

* **Amount GB Downloaded:** a new column that classifies customers into three groups, depending on the average amount of GB downloaded from the cloud service: Low ( less than 2 GB), Medium ( between 2 and 22 GB ) and High (23 or more GB).

=SI([@[Avg Monthly GB Download]]<2;"Low";SI([@[Avg Monthly GB Download]]<=23;"Medium";"High"))

Once we had cleaned, transformed and performed exploratory analysis on our data, we started designing the final dashboard:

1. First of all, we wanted to define the **Key Performance Indicators (KPIs)** that needed to be presented in the dashboard. For that reason, we created the following metrics using Excel formulas:

|  |  |
| --- | --- |
| **KPI** | **Value** |
| Total Customers | 6687 |
| Churn Customers | 1835 |
| Churn Rate | 27% |
| Total Monthly Charges | $ 211.718,00 |
| Average Monthly Charges | $ 31,66 |
| Total Monthly Charges Churn | $ 67.219,00 |
| Average Monthly Charges Churn | $ 36,63 |

Then we identified which columns were the most relevant and insightful to include them in the final dashboard, the deliverable of the project.

The most interesting fields were the following:

Categorical columns

* **Churn Label**
* **Group**
* **Age Group**
* **Payment Method**
* **Contract Type**
* **Churn Category and Reason**

Date columns

* **Last Transaction Date (in years and months)**

Numerical columns

* **Customer Service Calls**

The dashboard needed to be simple and focused on the question to be solved: What are the principal causes of churn within Amazon Prime Video subscribers and which could be the possible solutions?

In order to achieve that objective, we came up with the following design:

* **A first set of 4 KPI**: Total Customers, Churn Rate, Average Monthly Charges and Average Monthly Charges of Churn Customers.
* **5 plots**, including:
* A Donut Plot for the Churn Label with percentages.
* A Line Plot for the Last Transaction Date vs Churn Label.
* A Bar Plot for the Contract Type vs Churn Label.
* A Bar Plot for the Churn Category and Reasons vs Churn Label.
* A Bar Plot for the Customer Service Calls vs Churn Label.
* **Filters by** Group, Age Group, Payment Method, TopN Churn Categories, Years/Months.