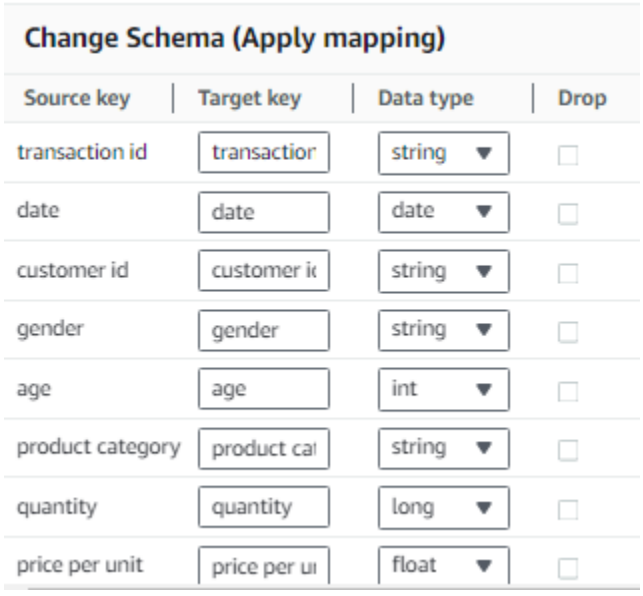
Retail:
Create a cloud-based retail solution that optimizes the entire retail ecosystem. This could involve inventory management, supply chain optimization, personalized customer experiences, and seamless integration between online and offline channels. Prioritize scalability, flexibility, and real-time data analytics.

Steps to be Taken:

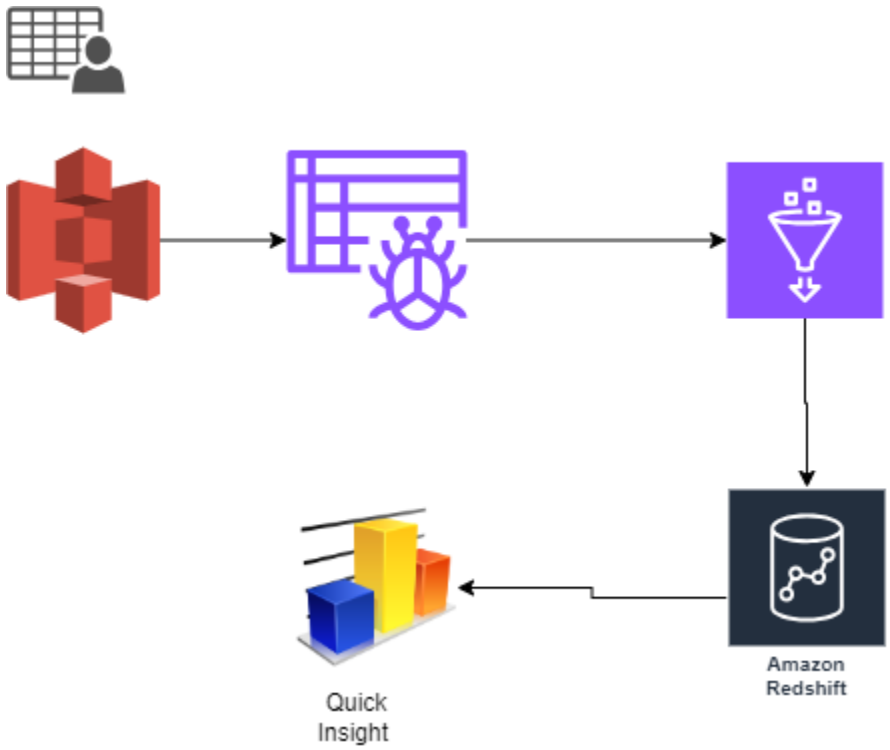
Data Exploration: Begin with data exploration to understand the structure, types, and potential challenges within the raw dataset.

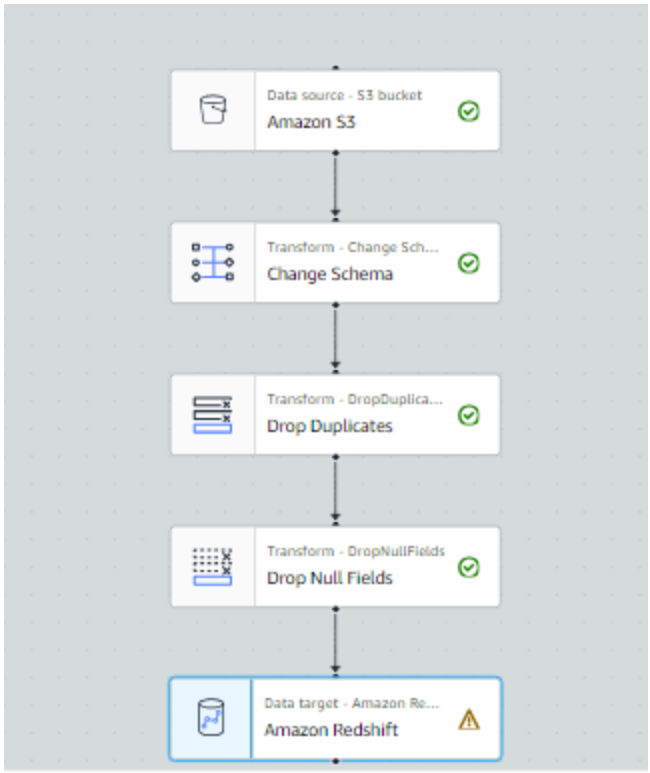
a. Remove duplicate values.
b. Remove Null values
c. Transform data as per schema

EDA : haven't found any anomalies in the data set provided

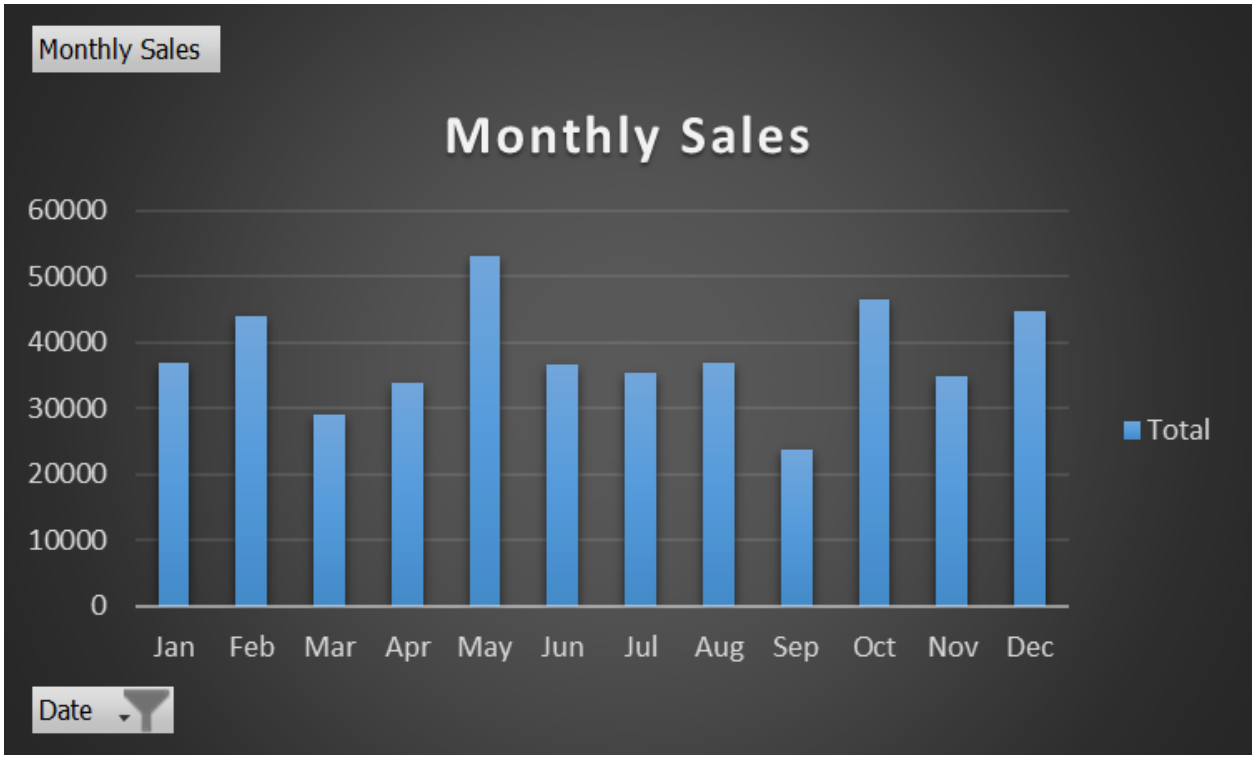


Cloud Solution



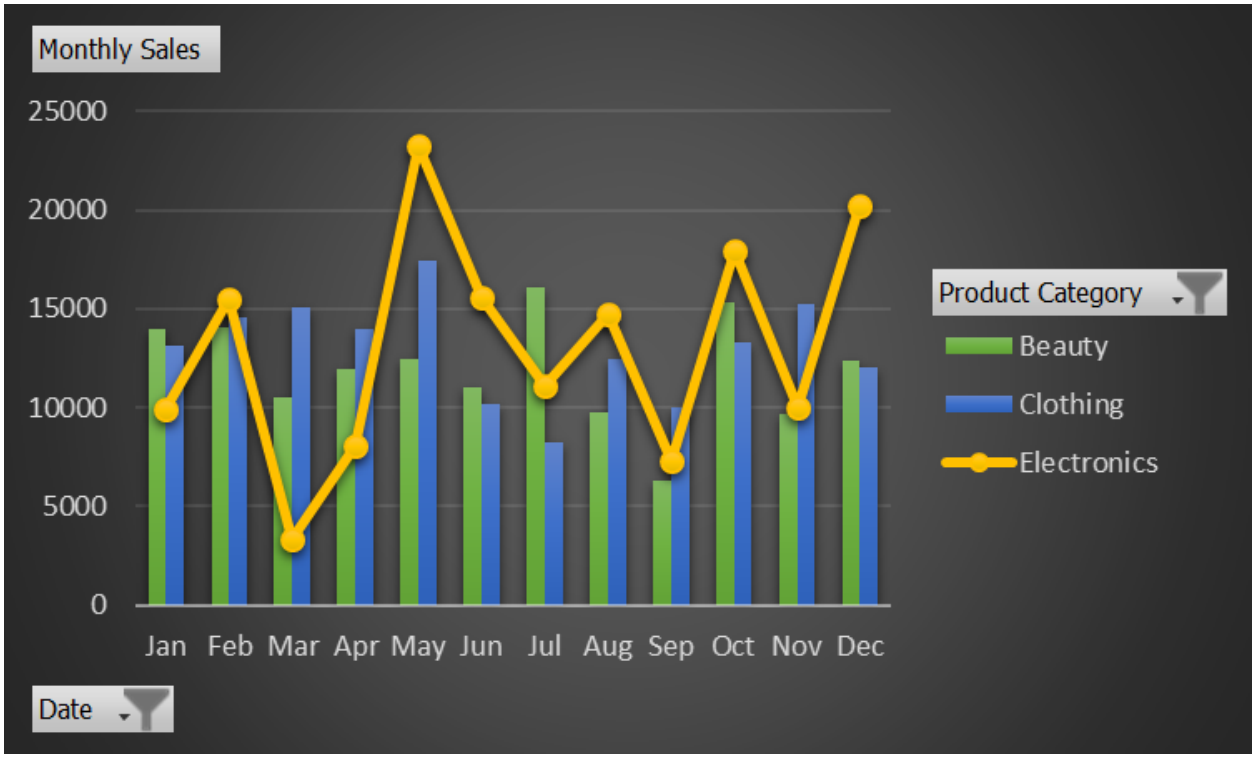

Data source - S3 bucket
Amazon S3
Transform - Change Sch...
Change Schema
Transform - DropDuplica...
Drop Duplicates
Transform - DropNullFields
Drop Null Fields
Data target - Amazon Re...
Amazon Redshift

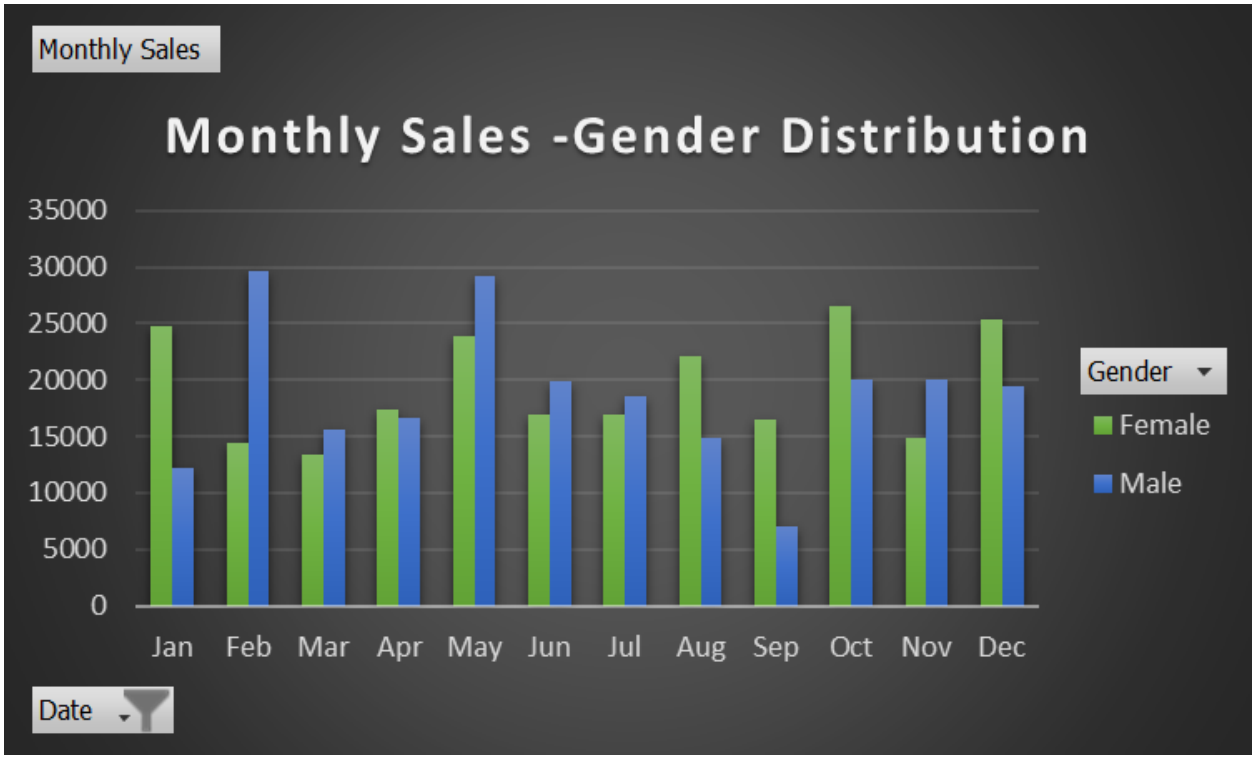
Data Insights



May has hghes sales and least in September

Product Category wise monthly sales

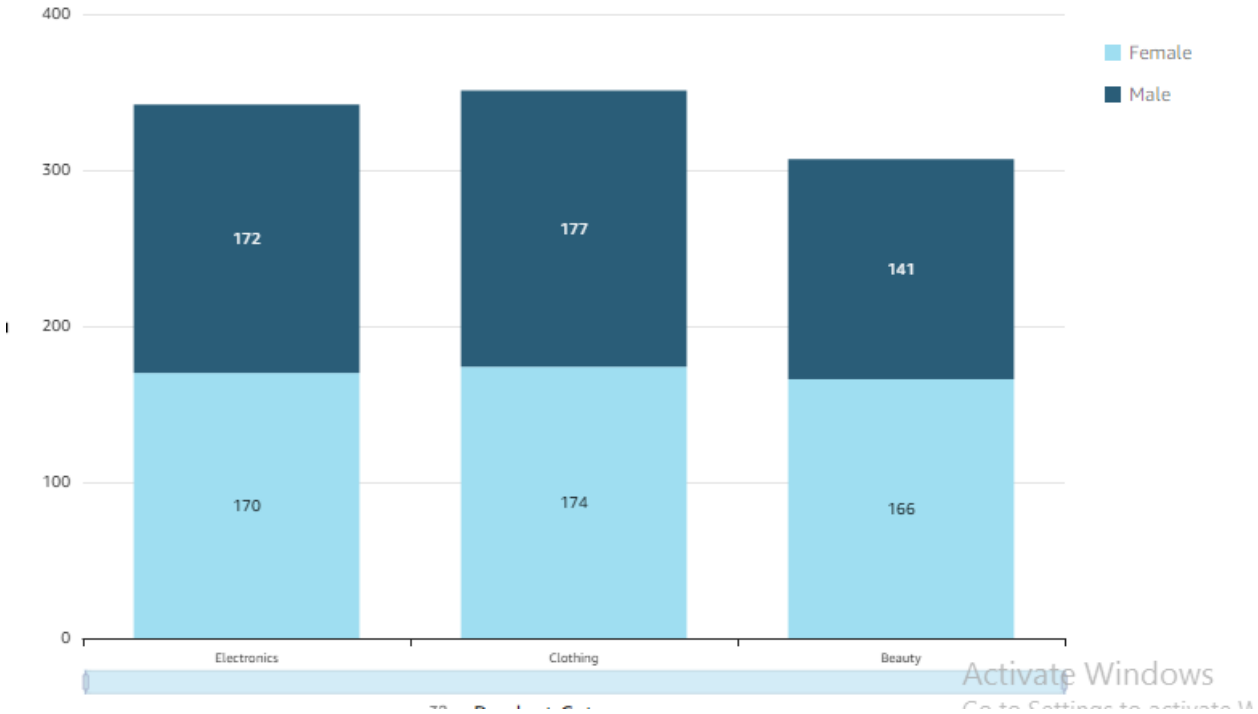




Female shops in months Oct, Dec,Jan

Least in March

Males shop more in Feb , May
Least in Sept

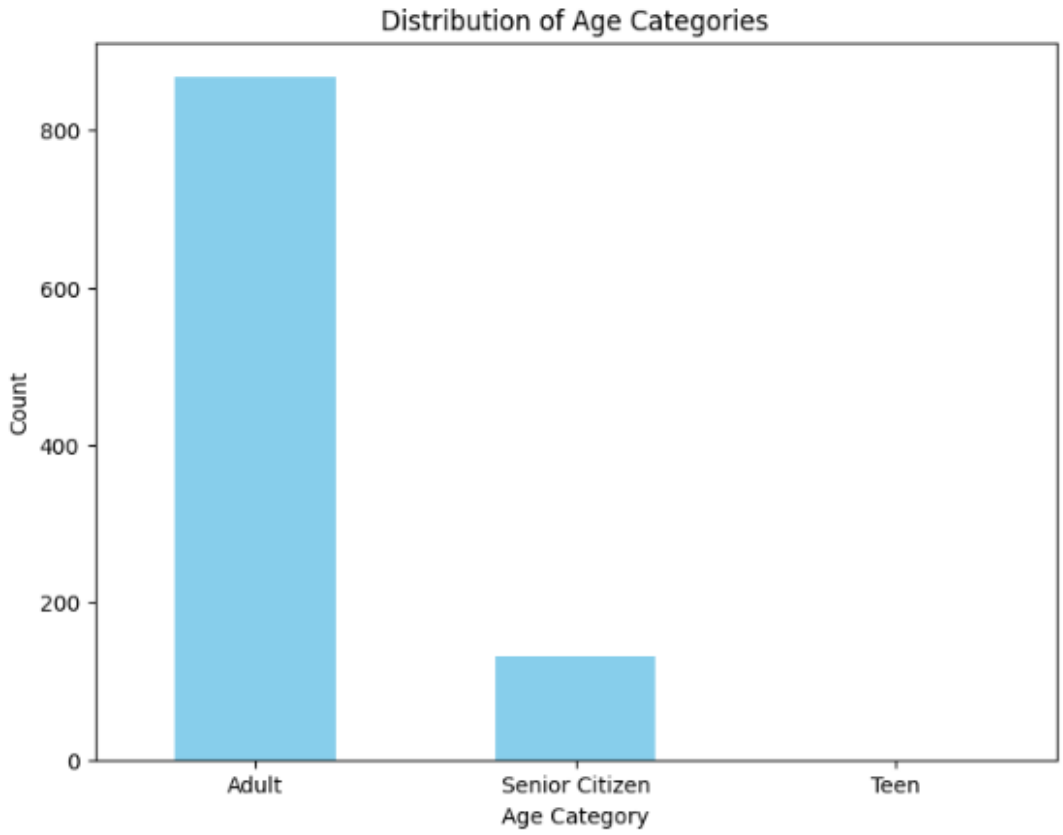


Male and Female both opts for Clothing more over other categories

Female and Male both least interested in Beauty

Age wise Insight

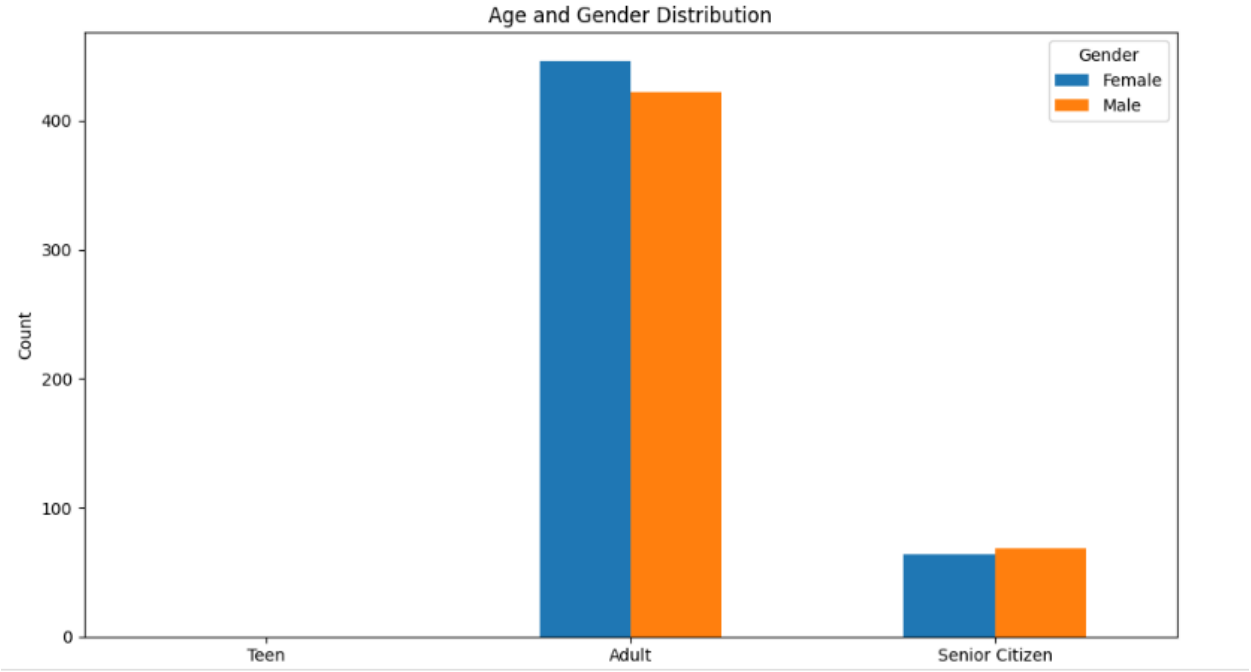
```
Adult             868
Senior Citizen    132
Teen                0
Name: age_category, dtype: int64
```



Adults are purchasing more than Senior Citizen and teens
Here teens are 18 yrs and below,
Adults are 19-59 yrs and 60 above senior citizen

Gender and Age Insight

age_category		
Teen	0	0
Adult	446	422
Senior Citizen	64	68



Product Category And Age Distribution

Teen	0	0	0
Adult	271	302	295
Senior Citizen	36	49	47