**Retail and Wherehouse Sales Prep**

/\* Step 1: Validate the Dataset \*/

proc contents data=work.import;

title "Dataset Structure: Retail and Warehouse Sales";

run;

proc print data=work.import(obs=10);

title "Preview of Raw Dataset";

run;

/\* Step 2: Handle Missing Values \*/

proc stdize data=work.import reponly missing=mean out=work.retail\_cleaned;

var "Retail Sales"n "Retail Transfers"n "Warehouse Sales"n; /\* Use name literals if column names contain spaces \*/

run;

data work.retail\_cleaned;

set work.retail\_cleaned;

if missing(Supplier) then Supplier = "Unknown";

run;

proc means data=work.retail\_cleaned n nmiss;

var "Retail Sales"n "Retail Transfers"n "Warehouse Sales"n;

run;

proc print data=work.retail\_cleaned(obs=10);

title "Preview of Cleaned Dataset";

run;

/\* Step 3: Seasonal Revenue Trends \*/

proc sql;

create table monthly\_revenue as

select MONTH,

sum("Retail Sales"n + "Retail Transfers"n + "Warehouse Sales"n) as Total\_Revenue

from work.retail\_cleaned

group by MONTH

order by MONTH;

quit;

proc sgplot data=monthly\_revenue;

vbar MONTH / response=Total\_Revenue datalabel dataskin=pressed;

xaxis label="Month";

yaxis label="Total Revenue (USD)";

title "Seasonal Revenue Trends";

run;

/\* Step 4: Average Revenue by Item Type \*/

proc sql;

create table avg\_revenue\_by\_item as

select "ITEM TYPE"n as Item\_Type,

mean("RETAIL SALES"n + "RETAIL TRANSFERS"n + "WAREHOUSE SALES"n) as Avg\_Revenue

from work.retail\_cleaned

group by "ITEM TYPE"n

order by Avg\_Revenue desc;

quit;

proc sgplot data=avg\_revenue\_by\_item;

vbar Item\_Type / response=Avg\_Revenue datalabel dataskin=pressed;

xaxis label="Item Type";

yaxis label="Average Revenue (USD)";

title "Average Revenue by Item Type";

run;

/\* Step 5: Sales Distribution by Item Type \*/

proc sql;

create table sales\_distribution as

select "ITEM TYPE"n as Item\_Type,

sum("Retail Sales"n + "Retail Transfers"n + "Warehouse Sales"n) as Total\_Sales

from work.retail\_cleaned

group by "ITEM TYPE"n

order by Total\_Sales desc;

quit;

proc sgpie data=sales\_distribution;

pie Item\_Type / response=Total\_Sales;

title "Sales Distribution by Item Type";

title2 "Sum of Total\_Sales by ITEM TYPE";

run;