

```
/* Define a library for raw data if not already defined */
```

```
libname rawdata '/sas/data/raw';
```

```
/* Define a library for processed data if not already defined */
```

```
libname processed '/sas/data/processed';
```

```
/* Step 1: Load raw customer orders data */
```

```
data processed.customer_orders_raw;
```

```
    set rawdata.orders;
```

```
/* Simulate adding a new derived variable */
```

```
    OrderValue = Quantity * UnitPrice;
```

```
run;
```

```
/* Step 2: Filter orders for a specific region */
```

```
data processed.customer_orders_filtered;
```

```
    set processed.customer_orders_raw;
```

```
    where Region = 'East';
```

```
run;
```

```
/* Step 3: Aggregate sales by customer */
```

```
proc sql;
```

```
    create table processed.customer_sales_summary as
```

```
    select
```

```
        CustomerID,
```

```
        sum(OrderValue) as TotalSales,
```

```
        count(distinct OrderID) as NumberOfOrders
```

```
    from processed.customer_orders_filtered
```

```
    group by CustomerID;
```

```
quit;
```

```
/* Step 4: Merge aggregated sales with customer demographic information */
```

```
data processed.final_customer_data;  
  merge processed.customer_sales_summary (in=a)  
    rawdata.customer_demographics (in=b);  
  by CustomerID;  
  if a and b; /* Ensure records exist in both datasets */  
run;
```