# Optimize Model Performance

## Review a DirectQuery model design

1. Open the **D:\DA100\Demo\Resources\AW Sales Analysis.pbix** file.
2. If prompted to connect to the data source, click **Connect**.
3. At the bottom-right corner, point out that the data model comprises DirectQuery tables.
4. Save the Power BI Desktop file to the **D:\DA100\Demo\MySolution** folder.
5. In Model view, introduce the model design, which comprises two related tables.
6. In Report view, interact with the report by selecting different items in the **Fiscal Year** slicer.
7. Drill through from any month column to reveal order details.
8. Return to the **Sales Summary** page.

## Review query performance

1. On the **View** ribbon tab, show the **Performance Analyzer** pane.
2. Refresh the visuals, and then expand the slicer and **Sales by Month** visual, and point out that they used DirectQuery mode (data was requested from the data source).

## Configure Dual storage tables

1. In Model view, select the **Date** table, and then select the storage mode to **Dual**.
2. When the data has imported, switch to Report view, and then in the **Performance Analyzer** pane, refresh the visuals.
3. Point out that the **Date** table is now queried from the model cache.

## Create aggregations

1. Open the Power Query Editor window, and in the **Queries** pane, duplicate the **Reseller Sales**

query.

1. Rename the new query **Reseller Sales Agg**.
2. Apply a group by transformation, as follows:
   * Group by **OrderDate**.
   * New column: **Sales**, which is the sum of the **SalesAmount** column.
3. Close and apply the queries.
4. In Model view, set the storage mode for the **Reseller Sales Agg** table to **Import**.
5. Create a relationship from the **Date** table **Date** column to the **Reseller Sales Agg** table

**OrderDate** column—ensure that the column is one-to-many, with the **Date** table on the one-side.

1. Manage aggregations on the **Reseller Sales Agg** table:
   * **OrderDate**: Group by the **Reseller Sales** table **OrderDate** column.
   * **Sales**: Sum the **Reseller Sales** table **SalesAmount** column.
2. Point out that the aggregation table is now hidden.
3. Switch to Report view, and in the **Performance Analyzer** pane, and then refresh the visuals.
4. Point out that the **Sales by Month** table is now queried from the model cache.
5. Drill through from any month, and point out that the details in the table are requested as DirectQuery from the data source.
6. Save the Power BI Desktop file.
7. Close Power BI Desktop.