# SSRS Data Source, Dataset, and Shared Data Source – Detailed Notes

## 1. Data Source in SSRS

A \*\*Data Source\*\* is a connection configuration that tells SSRS \*\*where to get the data from\*\*.

It contains:

- Type of source (SQL Server, Oracle, Excel, OData, Azure SQL, etc.)

- Connection string (server name, database name, authentication details)

- Credentials (Windows auth, SQL auth, etc.)

\*\*Example:\*\*

```

Data Source=SQLSRV01;Initial Catalog=AdventureWorks2014;Integrated Security=True

```

## 2. Dataset in SSRS

A \*\*Dataset\*\* is the actual \*\*data retrieval query\*\* that SSRS uses to bring records into your report.

- Based on a Data Source.

- Contains a query (T-SQL, MDX, DAX, etc.) or calls a stored procedure.

- Defines fields that can be placed in your report.

\*\*Example:\*\*

```sql

SELECT ProductID, Name, ListPrice

FROM Production.Product

WHERE ListPrice > @MinPrice

```

## 3. Shared Data Source vs. Embedded (Unshared) Data Source

### Shared Data Source

- Created once and stored centrally on the SSRS server (or in the Visual Studio project under "Shared Data Sources").

- Can be reused by multiple reports.

- Changes in one place apply to all reports that use it.

- Stored as a `.rds` file in your SSRS project.

### Embedded (Unshared) Data Source

- Defined inside a single report.

- Cannot be reused by other reports.

- Stored inside the `.rdl` file.

## 4. Why Use a Shared Data Source?

- Centralized management

- Consistency across reports

- Security control

- Reduced maintenance

\*\*Real-World Scenario:\*\*

Your company migrates the Sales Database to a new server.

- With Embedded Data Sources, you must open and update each report.

- With a Shared Data Source, you update once and all reports work.

## 5. By Default: Shared or Unshared?

- When creating a new report, a Data Source defined inside it is Embedded (Unshared) by default.

- To make it shared, create it under "Shared Data Sources" and link it.