



DEPI Assignment: SSIS ETL Project

Group Members:

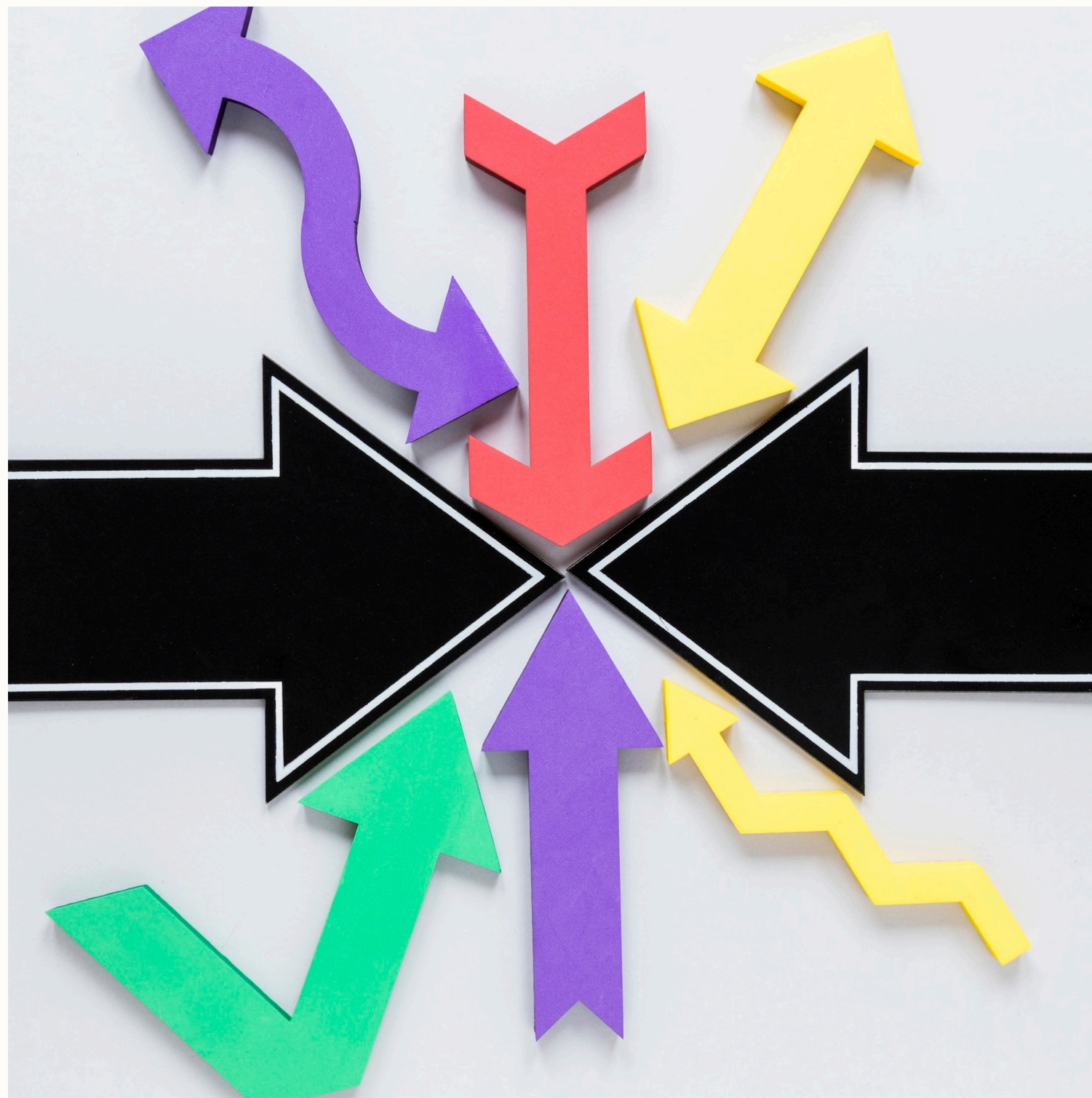
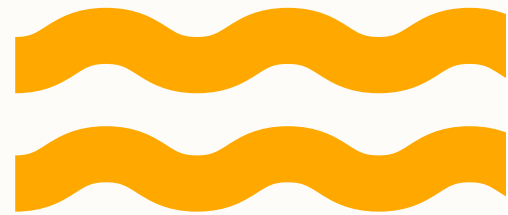
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Intro to SSIS

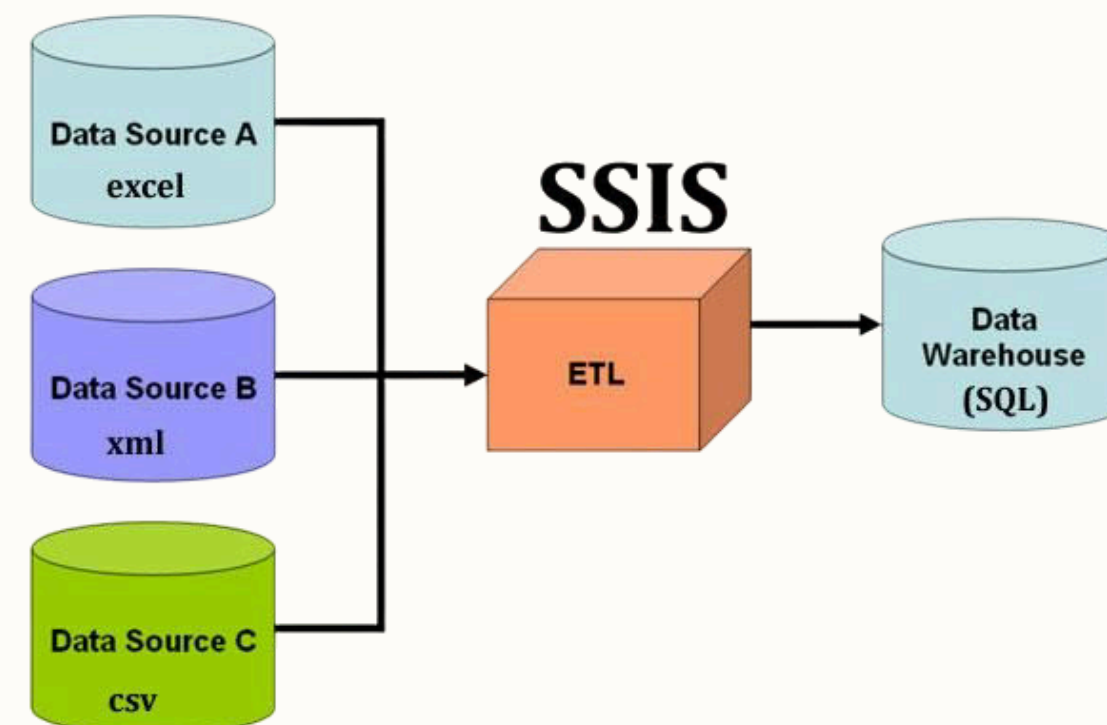
In these slides, we will explore **SQL Server Integration Services (SSIS)**, a powerful tool for **ETL (Extract, Transform, Load)** processes. This presentation will showcase the steps we took to create a demo project.

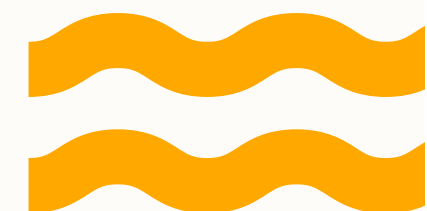




Understanding ETL Basics

Before diving into SSIS, it's crucial to understand the **ETL process**. **Extract** data from various sources, **Transform** it into the desired format, and **Load** it into a target database. This step-by-step approach ensures data integrity and consistency for your projects.



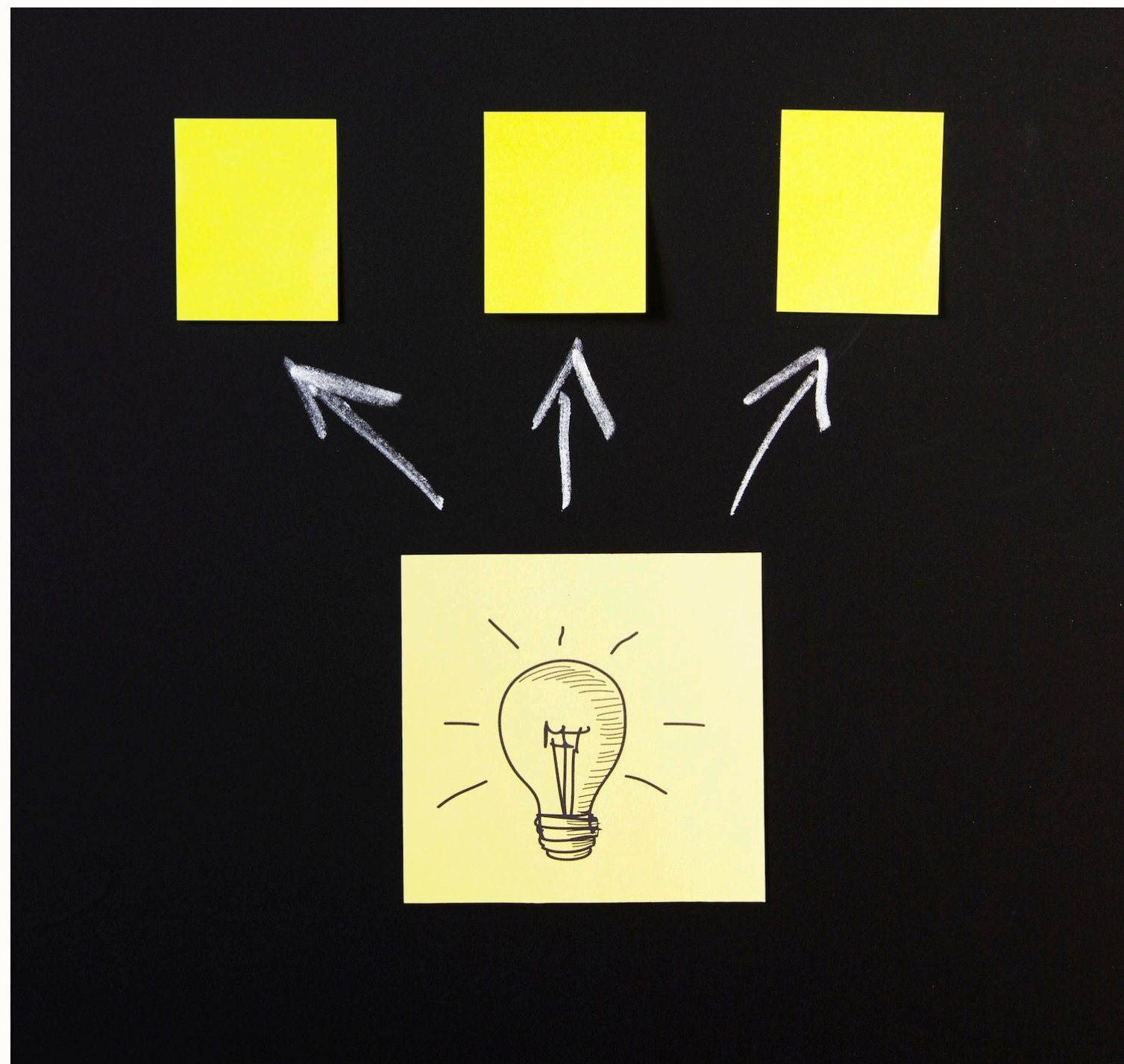


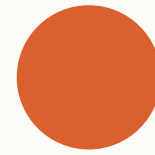
Key SSIS Components

SSIS consists of several key components such as

- Data Flow Tasks
- Control Flow
- Transformations.

Each plays a vital role in managing data workflows and ensuring smooth transitions between tasks. Familiarizing yourself with these components is essential for effective ETL.



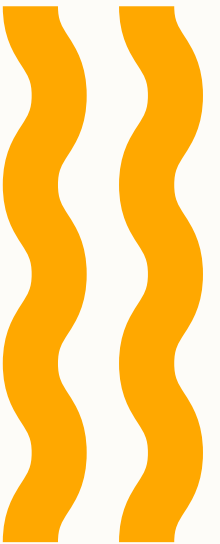


Project 1: SSIS ETL

We were tasked to do the following steps:

Design and implement an ETL process in SQL Server Integration Services (SSIS) to create a star schema with historical data management, delta load, incremental load, and data transformation tasks.

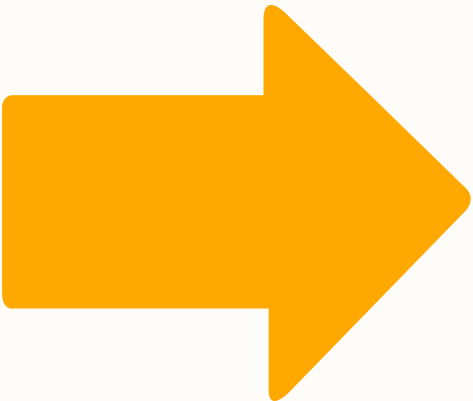
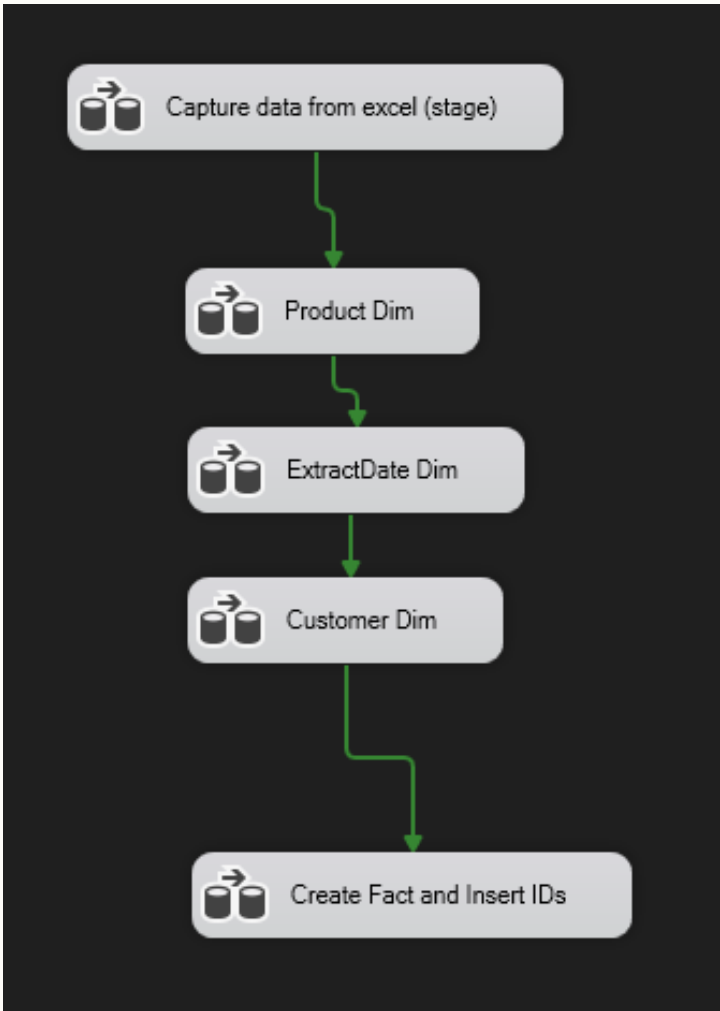
- Load the data from an Excel source.
- Create Dimensions tables(Product, Customer & Date) and one Fact table (Sales).
- Create a slowly changing dimension.
- Create derived columns





Project Overview

We created a Demo dataset in Excel and used it in our ETL pipeline to create, populate and update the tables.



- + [Table Icon] dbo.CustomerDim
- + [Table Icon] dbo.DateDim
- + [Table Icon] dbo.ProductDim
- + [Table Icon] dbo.SalesFact
- + [Table Icon] dbo.StagingDB

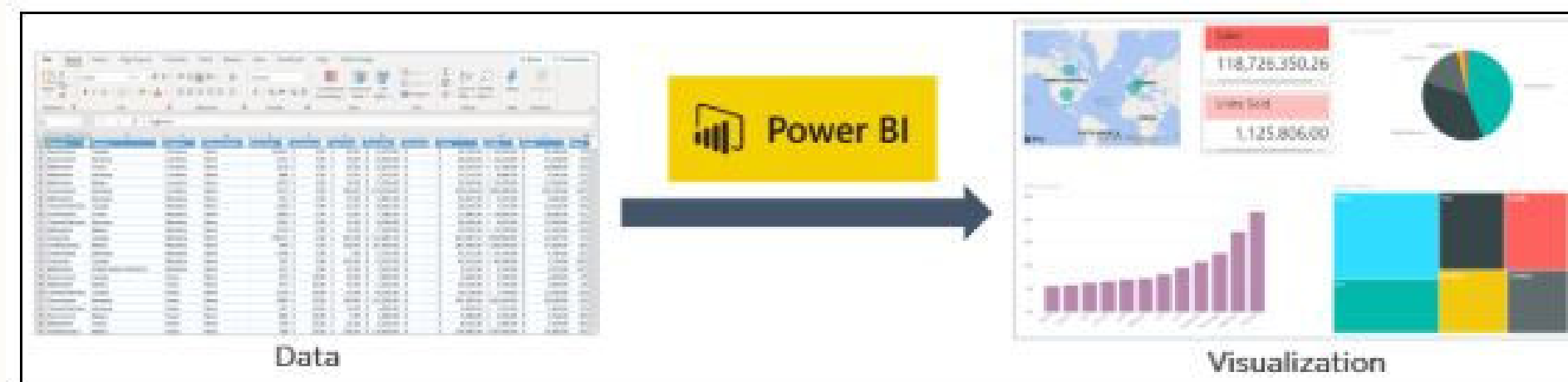


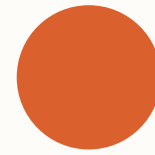


SSIS Project Demo

Intro to Power BI

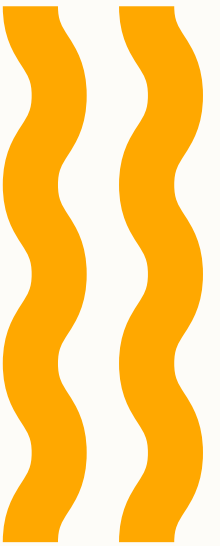
Power BI is a business analytics service provided by **Microsoft** that lets you **visualize your data** and share insights. It converts data from different sources to build interactive dashboards and Business Intelligence reports.





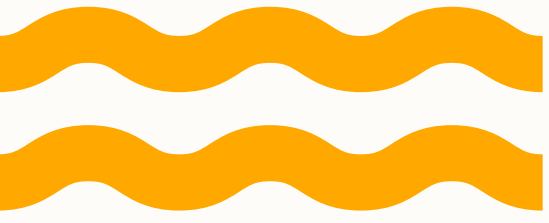
Project 2: Power BI Dashboard

Using a Demo dataset, create a Power BI dashboard to drive insights.

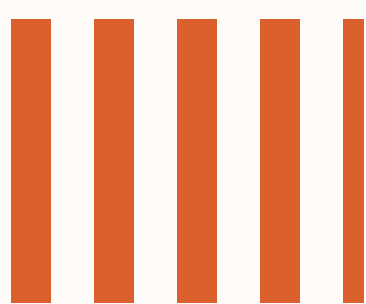




Power BI Project Demo



Questions?





Thank You!