

**Data and Query Task (Basic)**

1. Script create table & Insert table
  - a. Employee

Id	EmployeeId	FullName	BrithDate	Address
1	10105001	Ali Anton	19 Aug 1982	Jakarta Utara
2	10105002	Rara Siva	1 Jan 1982	Mandalika
3	10105003	Rini Aini	20 Feb 1982	Sumbawa Besar
4	10105004	Budi	22 Feb 1982	Mataram Kota

```
CREATE TABLE
```

```
[Employee]
```

```
( [Id] INT IDENTITY(1,1) NOT NULL PRIMARY KEY,
```

```
[EmployeeId] VARCHAR(10) NOT NULL UNIQUE,
```

```
[FullName] VARCHAR(100) NOT NULL,
```

```
[BrithDate] DATE NOT NULL,
```

```
[Address] VARCHAR(500) NULL,
```

```
);
```

```
INSERT INTO [Employee] ( [EmployeeId], [FullName], [BrithDate], [Address]) VALUES
```

```
('10105001', 'Ali Anton', '19 Aug 1982', 'Jakarta Utara'),
```

```
('10105002', 'Rara Siva', '1 Jan 1982', 'Mandalika'),
```

```
('10105003', 'Rini Aini', '20 Feb 1982', 'Sumbawa Besar'),
```

```
('10105004', 'Budi', '22 Feb 1982', 'Mataram Kota');
```

b. PositionHistory

Id	PosId	PosTitle	EmployeeId	StartDate	EndDate
1	50000	IT Manager	10105001	1 Jan 2022	28 Feb 2022
2	50001	IT Sr. Manager	10105001	1 Mar 2022	31 Dec 2022
3	50002	Programmer Analyst	10105002	1 Jan 2022	28 Feb 2022
4	50003	Sr. Programmer Analyst	10105002	1 Mar 2022	31 Dec 2022
5	50004	IT Admin	10105003	1 Jan 2022	28 Feb 2022
6	50005	IT Secretary	10105003	1 Mar 2022	31 Dec 2022

```
CREATE TABLE [PositionHistory]
```

```
( [Id] INT IDENTITY(1,1) NOT NULL PRIMARY KEY,
```

```
[PosId] VARCHAR(10) NOT NULL,
```

```
[PosTitle] VARCHAR(100) NOT NULL,
```

```
[EmployeeId] VARCHAR(10) NOT NULL,
```

```
[StartDate] DATE NOT NULL,
```

```
[EndDate] DATE NOT NULL
```

```
);
```

```
INSERT INTO [PositionHistory] ([PosId], [PosTitle], [EmployeeId], [StartDate], [EndDate]) VALUES
```

```
('50000', 'IT Manager', '10105001', '1 Jan 2022', '28 Feb 2022'),
```

```
('50001', 'IT Sr. Manager', '10105002', '1 Mar 2022', '31 Dec 2022'),
```

```
('50002', 'Programmer Analyst', '10105003', '1 Jan 2022', '28 Feb 2022'),
```

```
('50003', 'Sr. Programmer Analyst', '10105004', '1 Mar 2022', '31 Dec 2022'),
```

```
('50004', 'IT Admin', '10105005', '1 Jan 2022', '28 Feb 2022'),
```

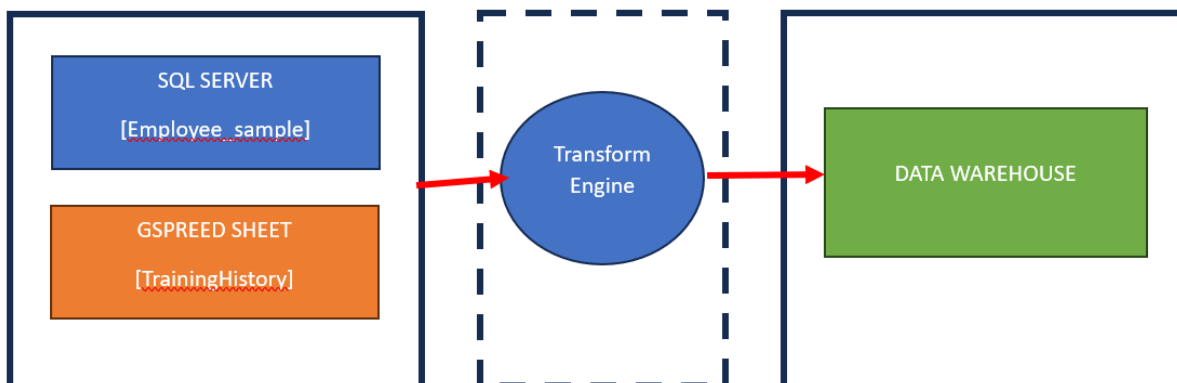
```
('50005', 'IT Secretary', '10105006', '1 Mar 2022', '31 Dec 2022');
```

2. Create query to display all employee (EmployeeId, FullName, BirthDate, Address) data with their current position information (PosId, PosTitle, EmployeeId, StartDate, EndDate)

```
SELECT a.*, b.Id, b.PosId, b.PosTitle, b.EmployeeId, b.StartDate, b.EndDate
FROM [MDM_DM].[dbo].[Employee] a
INNER JOIN
(
  (SELECT * From( Select *,
    RANK() OVER(PARTITION BY [EmployeeId]
    ORDER BY [PosId] DESC) as rank
  FROM [MDM_DM].[dbo].[PositionHistory]) as tablewithrank
  where tablewithrank. rank = 1
)) b on
a.[EmployeeId]= b.[EmployeeId]
```

### ETL, Data Warehouse and Analytics Task

1. Design simple ETL Flow that compile these two data sources into Data Warehouse



2. Design simple report that displays historical training data

Employee Name	TraId	TraMonth	TraTitle
Abdul	50004	Mar	Training SQL
Abdul	50005	Apr	Training Tableau
Fitri	50006	Feb	Training SQL
Fitri	50007	Apr	Training Tableau
Rian	50000	Jan	Training Javascript
Rian	50001	Mar	Training SQL
Zahra	50002	Jan	Training Javascript
Zahra	50003	Feb	Training Phyton

3. Design simple dashboard that displays

<https://app.powerbi.com/view?r=eyJrljoiMDczNDM5MjMtMDc3Ni00MTNjLTgzYTgtMzhmY2U2NmIxYmYwliwidCI6IjNjYjUwZGVlWUxNTctNGY0OS1hMWlwLWI4MWJmOWQyOTJiNCIsImMiOiJlEwfQ%3D%3D>