**– Recursive CTE to get the top level manager till the lowest employee**

```
WITH cte_org AS (
   SELECT
      staff_id,
      first_name,
      manager_id

   FROM
      sales.staffs
   WHERE manager_id IS NULL
   UNION ALL
   SELECT
      e.staff_id,
      e.first_name,
      e.manager_id
   FROM
      sales.staffs e
      INNER JOIN cte_org o
         ON o.staff_id = e.manager_id
)
SELECT * FROM cte_org;
```

1. **First Normal Form (1NF):** This is the most basic level of normalization and ensures that each row in a table is unique. This is done by removing duplicate rows and ensuring that all data values are atomic, meaning they cannot be broken down into smaller parts.
2. **Second Normal Form (2NF):** This level of normalization ensures that all non-key attributes are fully dependent on the primary key. This means that no non-key attribute can be derived from another non-key attribute.
3. **Third Normal Form (3NF):** This level of normalization ensures that there are no transitive dependencies in the database. A transitive dependency is a dependency between two non-key attributes where the value of one non-key attribute depends on the value of another non-key attribute.
4. **Boyce-Codd Normal Form (BCNF):** This is a stricter form of 3NF that ensures that there are no partial dependencies in the database. A partial dependency is a dependency between a non-key attribute and a subset of the primary key.

**SCD Type**

Type 1
Overwrite the changes

Type 2
History will be added as a new row.

Type 3
History will be added as a new column.

Type 4
A new dimension will be added

Type 6
Combination of Type 2 and Type 3