Galaxy Schema for the Database

This document describes the Galaxy Schema (Fact Constellation Schema) for the given database schema. It organizes fact and dimension tables to handle complex many-to-many relationships between entities like employees, courses, and performances.

# Fact Tables

## Course\_Performances

Fact Attributes: score, completion\_date, course\_status

Dimensions:

- Employee (FK): Links to the Employees table.

- Course (FK): Links to the Courses table.

## Project\_Performances

Fact Attributes: engagement\_score, teamwork\_score, punctuality\_score, overall\_performance\_score

Dimensions:

- Employee (FK): Links to the Employees table.

- Project (implicit dimension): If project details are maintained elsewhere, a Projects dimension table could be created.

## Resignation\_Records

Fact Attributes: resignation\_date, reason

Dimensions:

- Employee (FK): Links to the Employees table.

# Dimension Tables

## Employees

Attributes: id, first\_name, last\_name, department, designation\_type, hire\_date, employment\_status

Relationships: Links to fact tables like Course\_Performances, Project\_Performances, and Resignation\_Records.

## Courses

Attributes: id, course\_name, course\_description, duration\_hours

Relationships: Links to the Course\_Performances fact table.

## Designation\_Courses (Bridge Table)

Attributes: designation\_type, course\_id

Relationships: Links DesignationType and Courses, supporting the many-to-many relationship.

# Galaxy Schema Structure

1. Center of the schema: The fact tables Course\_Performances, Project\_Performances, and Resignation\_Records.

2. Shared Dimension: The Employees table acts as a shared dimension across all fact tables.

3. Other Dimensions: Courses, Designation\_Courses (bridge), and potentially Projects as other key dimensions supporting the fact tables.