

# Approach for the Project: Data Harmony: SQL Table Documentation System

## 1. Table Information:

- **Table Name:** Name of the table.
- **Description:** Brief description of the purpose or content of the table.
- **Date Created/Modified:** Record when the table was created or last modified.

## 2. Column Information:

- **Column Name:** Name of the column.
- **Data Type:** The type of data the column can hold (e.g., VARCHAR, INT, DATE).
- **Length/Precision/Scale:** For character data, specify the maximum length; for numeric data, specify precision and scale.
- **Nullable:** Indicates whether the column allows NULL values.
- **Default Value:** If applicable, specify the default value for the column.
- **Constraints:** Specify any constraints like PRIMARY KEY, FOREIGN KEY, UNIQUE, etc.
- **Description:** Provide a brief description of the purpose or content of the column.

## 3. Indexes:

- **Index Name:** Name of the index.
- **Columns:** List of columns included in the index.
- **Type:** Specify whether it's a unique index, clustered index, non-clustered index, etc.

## 4. Relationships:

- **Foreign Key:** If applicable, specify the foreign key relationships between tables.
- **Referenced Table:** The table to which the foreign key refers.
- **Relationship Type:** Specify the type of relationship (e.g., one-to-many).

## 5. Triggers:

- **Trigger Name:** If applicable, specify the name of the trigger.
- **Event:** Specify the event that triggers the execution of the trigger (e.g., INSERT, UPDATE, DELETE).
- **Action:** Describe the action or set of actions performed by the trigger.

## 6. Additional Notes:

- Include any additional notes or considerations for the table, such as data retention policies, access permissions, or any other relevant information.

Table: Employees

- Description: Contains information about company employees.

- Date Created: 2023-01-01

- Date Modified: 2023-05-15

Columns:

1. employee\_id

- Data Type: INT

- Nullable: No

- Constraints: PRIMARY KEY

- Description: Unique identifier for each employee.

2. first\_name

- Data Type: VARCHAR(50)

- Nullable: No

- Description: First name of the employee.

3. last\_name

- Data Type: VARCHAR(50)

- Nullable: No

- Description: Last name of the employee.

#### 4. hire\_date

- Data Type: DATE

- Nullable: No

- Description: Date when the employee was hired.

#### Indexes:

- PK\_Employees: Primary Key on employee\_id

#### Relationships:

- No external relationships.

#### Triggers:

- No triggers defined.

#### Additional Notes:

- This table is part of the HR database and is linked to other tables, such as Departments and Salaries.