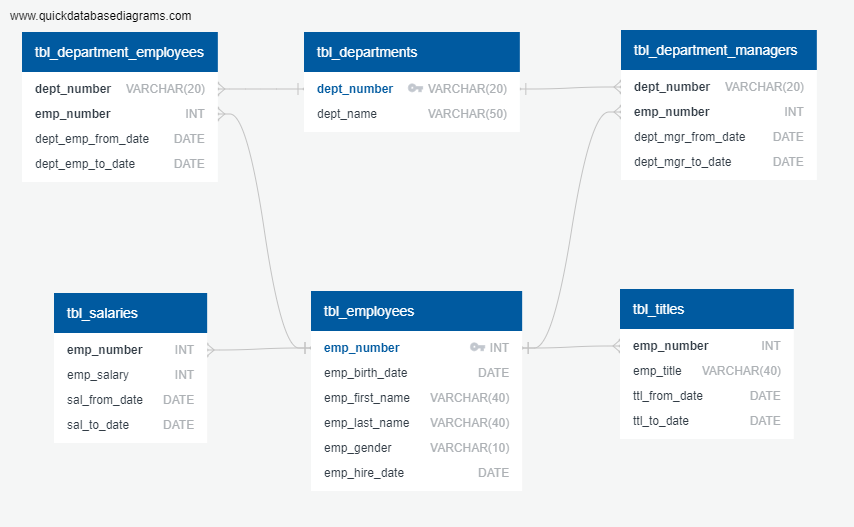
# ERD\_DB\_Pewlett\_Hackard\_Employees Documentation

Link to schema: <https://app.quickdatabasediagrams.com/#/d/OhVrmh>



ERD Description:

As can be seen in the ERD on Page 1, we have 6 tables in this Database.

We have primary keys in 2 tables as follows:

1. tbl\_departments:
   1. The Primary Key is the column dept\_number.
   2. It has unique values.
2. tbl\_employees:
   1. The Primary Key is the column emp\_number.
   2. It has unique values.

We have foreign keys in 4 tables as follows:

1. tbl\_salaries:
   1. We have one Foreign Key:
      1. It is the column emp \_number.
         1. It references the column emp\_number in the table “tbl\_employees”.
         2. This is set up as a one-to-many relationship between the table “tbl\_employees” and this table “tbl\_salaries”.
         3. This is because the salary of an employee can change over time i.e. you could have more than one record per employee in the table “tbl\_salaries”.
            1. Please note that in the dataset provided to us at the time of us creating this ERD, the number of rows in this table, “tbl\_salaries” (300,024) just happens to be the same as the number of rows in the table “tbl\_employees” (300,024), which could suggest a one-to-one relationship. However, this would mean that the salary of an employee does not change over time which is completely unrealistic. Therefore, in the ERD, I have chosen to set this up as a one-to-many relationship.
2. tbl\_titles:
   1. We have one Foreign Key:
      1. It is the column emp \_number.
         1. It references the column emp\_number in the table “tbl\_employees”.
         2. This is set up as a one-to-many relationship between the table “tbl\_employees” and this table “tbl\_titles”.
         3. This is because the title of an employee can change over time i.e. you could have more than one record per employee in the table “tbl\_titles”.
            1. This is evident in the dataset provided to us at the time of us creating the ERD.
            2. The number of rows in this table, “tbl\_ titles” was 443,308 whereas the number of rows in the table “tbl\_employees” was 300,024.
3. tbl\_department\_employees:
   1. We have two Foreign Keys in this table:
      1. The first Foreign Key is the column emp \_number.
         1. It references the column emp\_number in the table “tbl\_employees”.
         2. This is set up as a one-to-many relationship between the table “tbl\_employees” and this table “tbl\_department\_employees”.
         3. This is because the department of an employee can change over time i.e. you could have more than one record per employee in the table “tbl\_department\_employees”.
      2. The second Foreign Key is the column dept \_number.
         1. It references the column dept\_number in the table “tbl\_departments”.
         2. This is set up as a one-to-many relationship between the table “tbl\_departments” and this table “tbl\_department\_employees”.
         3. This is because the department of an employee can change over time i.e. you could have more than one record per employee in the table “tbl\_department\_employees”.
      3. This is evident from the dataset provided to us at the time of us creating the ERD.
         1. The number of rows in this table, “tbl\_department\_employees” was 331,603 whereas the number of rows in the table “tbl\_employees” was 300,024.
4. tbl\_department\_managers:
   1. We have two Foreign Keys in this table:
      1. The first Foreign Key is the column emp \_number.
         1. It references the column emp\_number in the table “tbl\_employees”.
         2. This is set up as a one-to-many relationship, between the table “tbl\_employees” and this table “tbl\_department\_managers”.
         3. This is because the manager of a department can change over time i.e. you could have more than one record per department in the table “tbl\_department\_managers”.
      2. The second Foreign Key is the column dept \_number.
         1. It references the column dept\_number in the table “tbl\_departments”.
         2. This is set up as a one-to-many relationship between the table “tbl\_departments” and this table “tbl\_department\_managers”.
         3. This is because the manager of a department can change over time i.e. you could have more than one record per department in the table “tbl\_department\_managers”.
      3. This is evident from the dataset provided to us at the time of us creating the ERD.
         1. The number of rows in this table, “tbl\_department\_managers” was 24 whereas the number of rows in the table “tbl\_departments” was 9.

The following pages provide a detailed description of the columns in each of these 6 tables.

## tbl\_departments

| Field | Description | Type | Default | Other |
| --- | --- | --- | --- | --- |
| dept\_number | Department Number | VARCHAR(20) | None | PK |
| dept\_name | Department Name | VARCHAR(50) | None |  |

## tbl\_employees

| Field | Description | Type | Default | Other |
| --- | --- | --- | --- | --- |
| emp\_number | Employee Number | INT | None | PK |
| emp\_birth\_date | Employee Birth Date | DATE | None |  |
| emp\_first\_name | Employee First Name | VARCHAR(40) | None |  |
| emp\_last\_name | Employee Last Name | VARCHAR(40) | None |  |
| emp\_gender | Employee Gender | VARCHAR(10) | None |  |
| emp\_hire\_date | Employee Hire Date | DATE | None |  |

## tbl\_salaries

| Field | Description | Type | Default | Other |
| --- | --- | --- | --- | --- |
| emp\_number | Employee Number | INT |  | FK |
| emp\_salary | Employee Salary | INT |  |  |
| sal\_from\_date | From Date | DATE |  |  |
| sal\_to\_date | To Date | DATE |  |  |

## tbl\_titles

| Field | Description | Type | Default | Other |
| --- | --- | --- | --- | --- |
| emp\_number | Employee Number | INT |  | FK |
| emp\_title | Employee Title | VARCHAR(40) |  |  |
| ttl\_from\_date | From Date | DATE |  |  |
| ttl\_to\_date | To Date | DATE |  |  |

## tbl\_department\_employees

| Field | Description | Type | Default | Other |
| --- | --- | --- | --- | --- |
| dept\_number | Department Number | VARCHAR(20) | None | FK |
| emp\_number | Employee Number | INT | None | FK |
| dept\_emp\_from\_date | From Date | DATE | None |  |
| dept\_emp\_to\_date | To Date | DATE | None |  |

## tbl\_department\_managers

| Field | Description | Type | Default | Other |
| --- | --- | --- | --- | --- |
| dept\_number | Department Number | VARCHAR(20) | None | FK |
| emp\_number | Employee Number | INT | None | FK |
| dept\_mgr\_from\_date | From Date | DATE | None |  |
| dept\_mgr\_to\_date | To Date | DATE | None |  |