

Week 4 Lab

ER Modelling, MySQL Hands On

Agenda

1. MYSQL Basics
2. ER Diagram - HR Database
3. MYSQL Hands On - HR Database

MySQL Basics

GitHib Link -

https://github.com/yogeshoyadav08/lab4_mysql_handson/blob/29fa6e93b6812517a6ecf26e622daf0442fd7cb5/mysql_basics.md

ER Modelling Exercise - HR Database

Entity Details

1. Region

`REGION_ID` decimal(5,0) NOT NULL,
`REGION_NAME` varchar(25) DEFAULT NULL

2. countries

`COUNTRY_ID` varchar(2) NOT NULL,
`COUNTRY_NAME` varchar(40) DEFAULT NULL,
`REGION_ID` decimal(10,0) DEFAULT NULL

3. locations

`LOCATION_ID` decimal(4,0) NOT NULL DEFAULT '0',
`STREET_ADDRESS` varchar(40) DEFAULT NULL,
`POSTAL_CODE` varchar(12) DEFAULT NULL,
`CITY` varchar(30) NOT NULL,
`STATE_PROVINCE` varchar(25) DEFAULT NULL,
`COUNTRY_ID` varchar(2) DEFAULT NULL

4. departments

`DEPARTMENT_ID` decimal(4,0) NOT NULL DEFAULT '0',
`DEPARTMENT_NAME` varchar(30) NOT NULL,
`MANAGER_ID` decimal(6,0) DEFAULT NULL,
`LOCATION_ID` decimal(4,0) DEFAULT NULL

5. jobs

`JOB_ID` varchar(10) NOT NULL DEFAULT '',
`JOB_TITLE` varchar(35) NOT NULL,
`MIN_SALARY` decimal(6,0) DEFAULT NULL,
`MAX_SALARY` decimal(6,0) DEFAULT NULL

6. employees

`EMPLOYEE_ID` decimal(6,0) NOT NULL DEFAULT '0',
`FIRST_NAME` varchar(20) DEFAULT NULL,
`LAST_NAME` varchar(25) NOT NULL,
`EMAIL` varchar(25) NOT NULL,
`PHONE_NUMBER` varchar(20) DEFAULT NULL,
`HIRE_DATE` date NOT NULL,
`JOB_ID` varchar(10) NOT NULL,
`SALARY` decimal(8,2) DEFAULT NULL,
`COMMISSION_PCT` decimal(2,2) DEFAULT NULL,
`MANAGER_ID` decimal(6,0) DEFAULT NULL,
`DEPARTMENT_ID` decimal(4,0) DEFAULT NULL

7. job_history

`EMPLOYEE_ID` decimal(6,0) NOT NULL,
`START_DATE` date NOT NULL,
`END_DATE` date NOT NULL,
`JOB_ID` varchar(10) NOT NULL,
`DEPARTMENT_ID` decimal(4,0) DEFAULT NULL

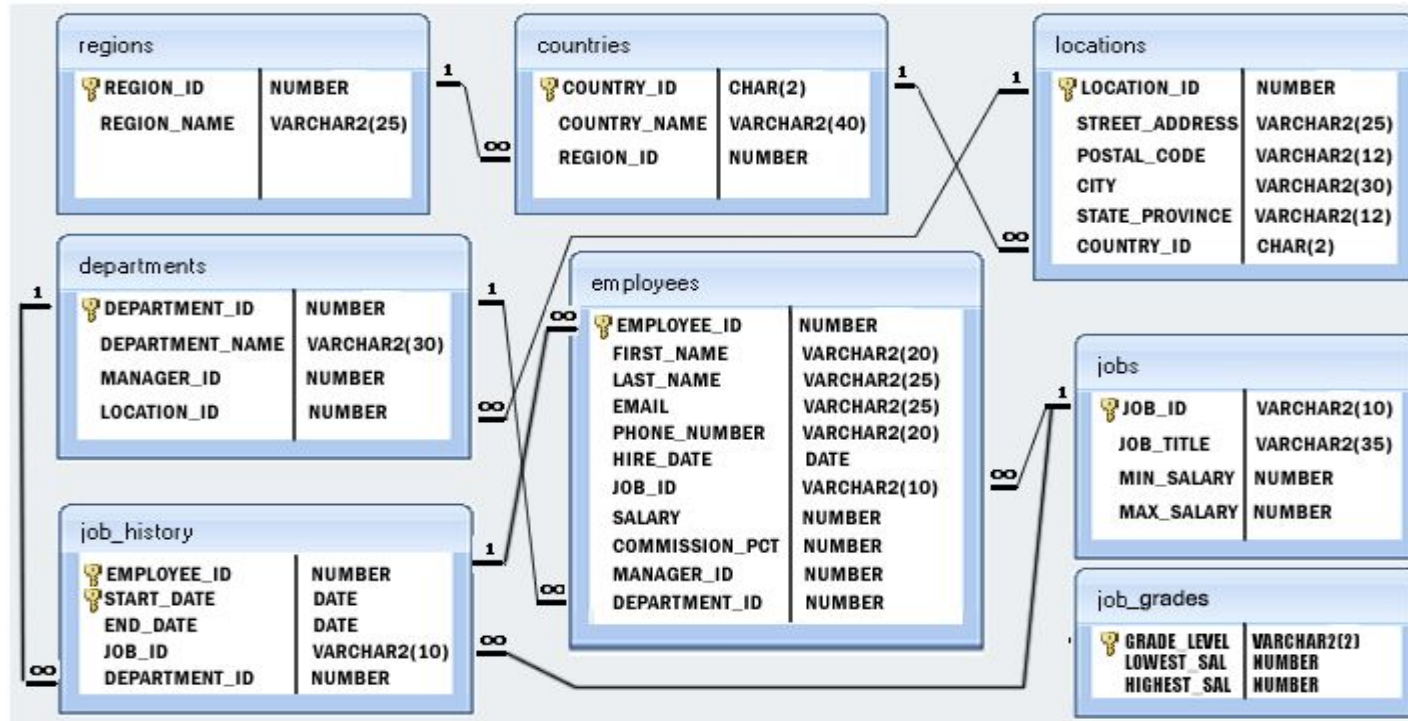
Design Considerations

1. ID columns across each entity are Primary key columns

2. PK-FK relationship needs to be implemented in the ER Diagram

3. Relationship: 1 to 1, 1 to many, many to 1 or many to many needs to be incorporated.

ER Diagram



Note - Ignore Job_Grades table in ER Diagram

MySQL Hands On

GitHub Link -

https://github.com/yogeshoyadav08/lab4_mysql_handson/blob/29fa6e93b6812517a6ecf26e622daf0442fd7cb5/mysql_hands_on_exercise.md

Lab Contents

Lab Content Link -

https://liveconcordia-my.sharepoint.com/:f:/g/personal/y_yada_live_concordia_ca/EjrbFl_LgkhLvGja_1PrKMsBOiXXKMK7BnWPpYFT029CpA?e=0nK29T

Thank You