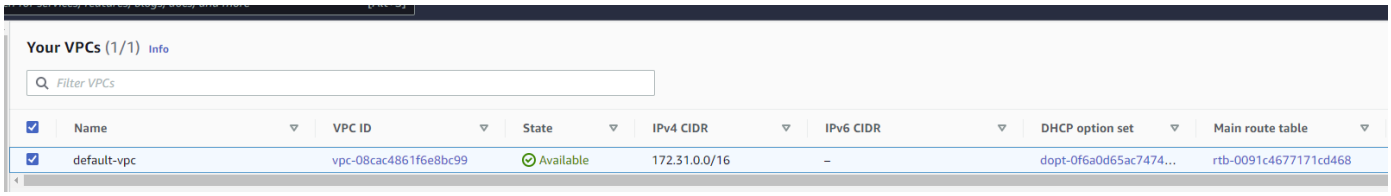
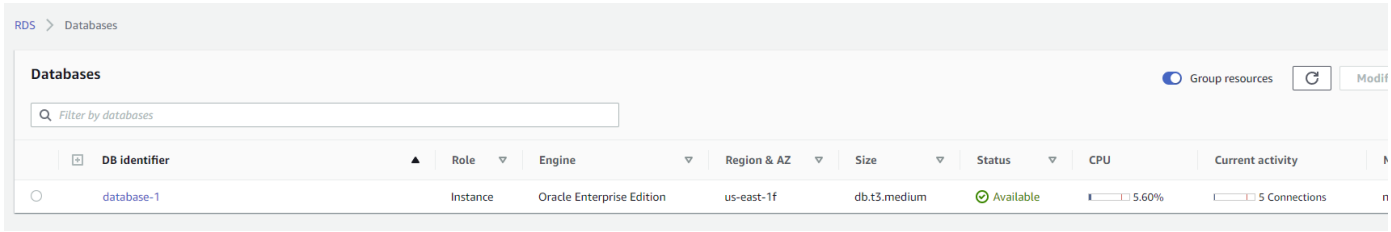
a. Setting Up the Default VPC



b. Create an RDS Oracle Database



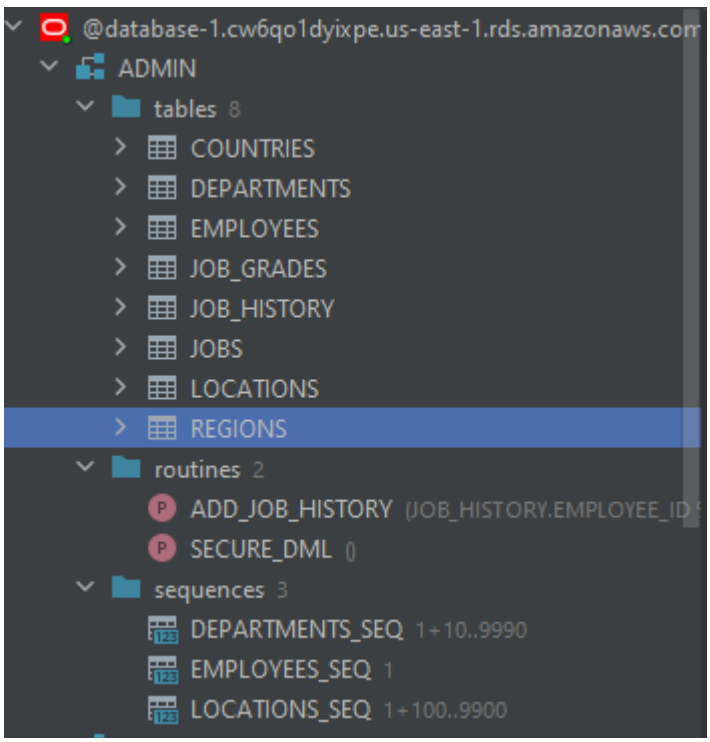
c. Create an Oracle userid "-HR"

```
ADMIN> CREATE USER "roger-HR" IDENTIFIED BY zrj12345
[2022-10-16 22:49:12] completed in 71 ms
```

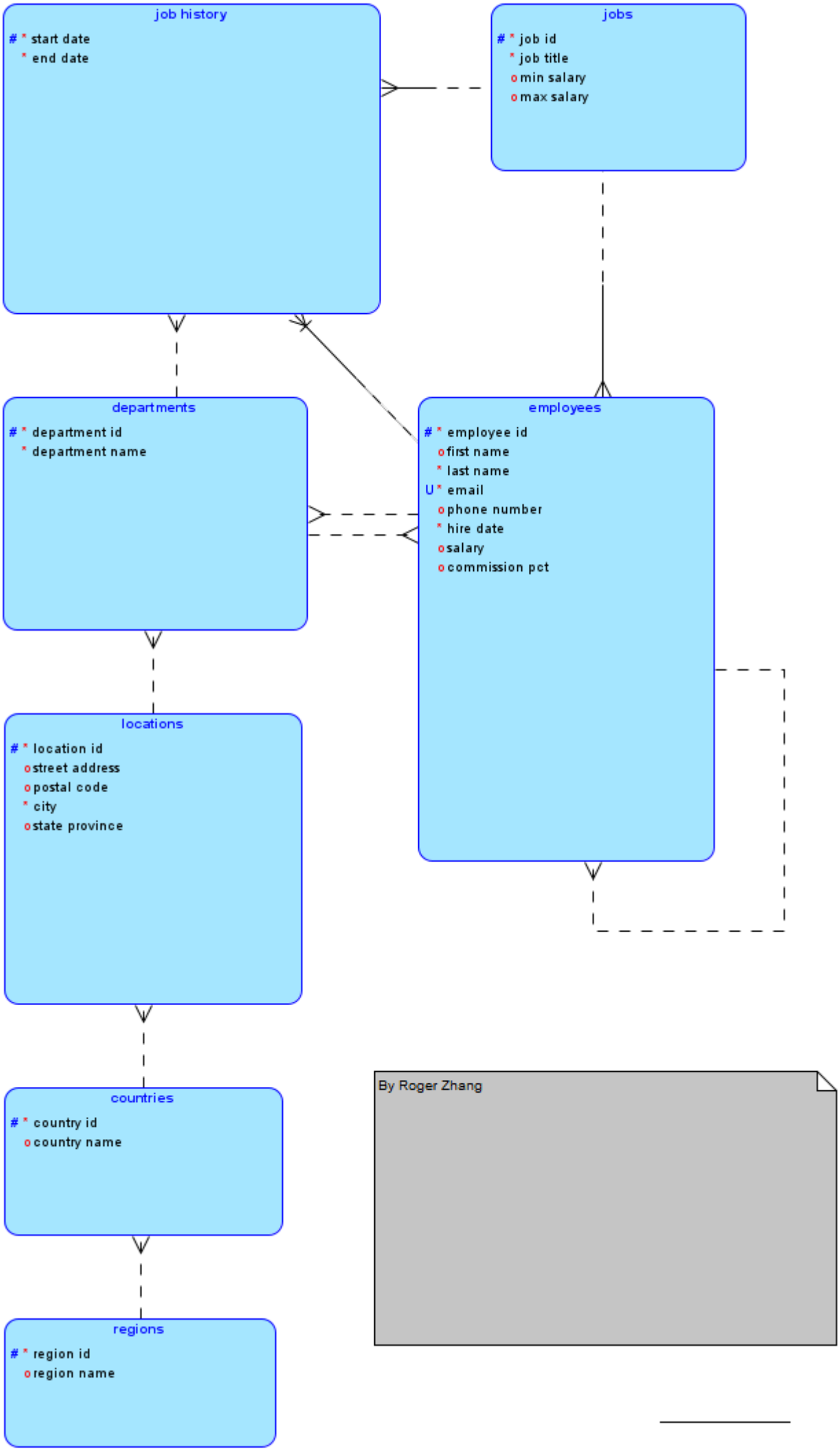
d. Load the HR Database Schema

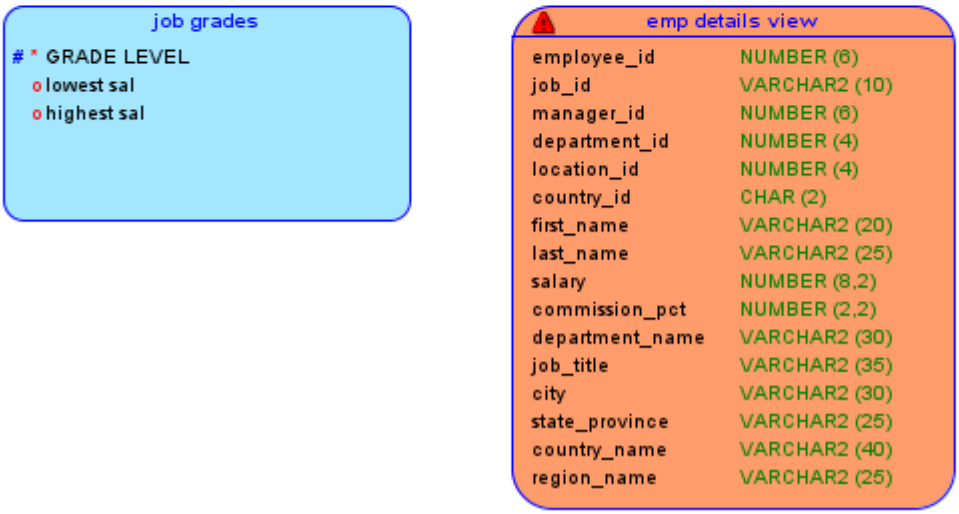
e. Connect with the Oracle SQL Developer and load the HR Database schema

f. Connect to the HR Database Schema using the Oracle SQL Developer

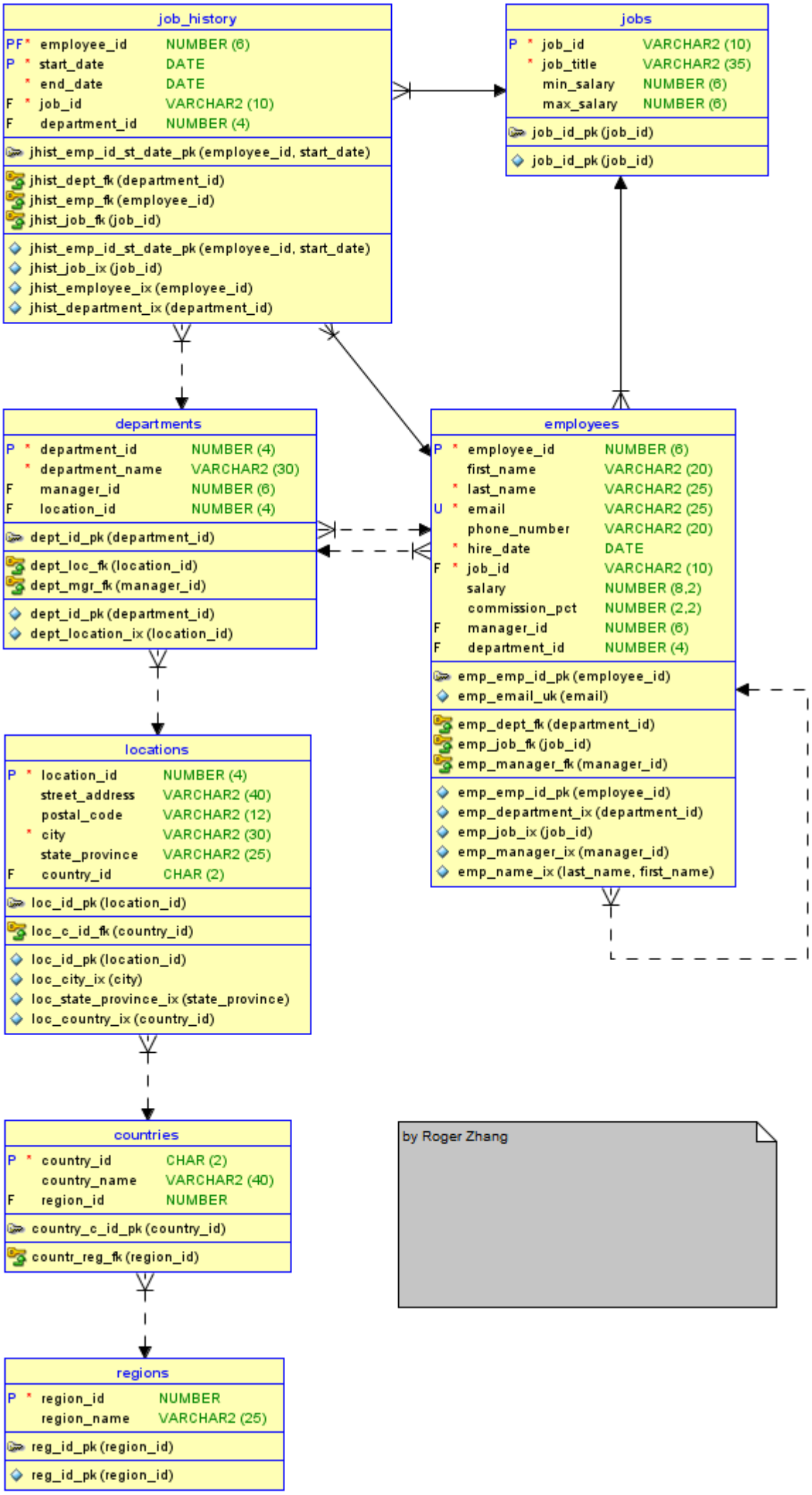


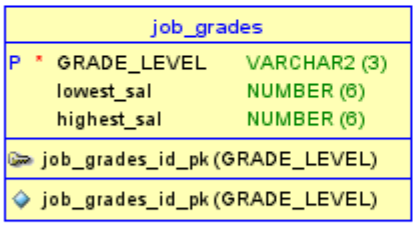
g. Use the Oracle Data Modeler to reverse engineer your Oracle Database Schema into and ER Diagram (Logical)

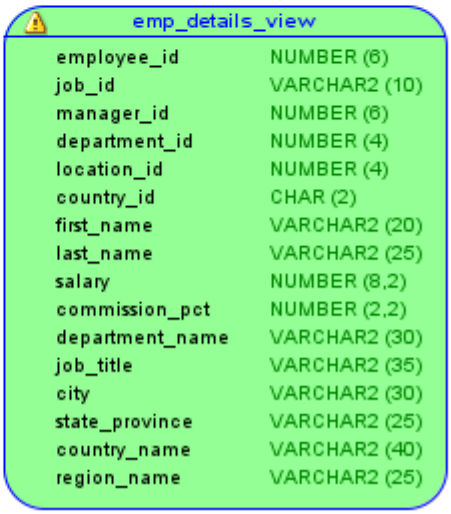

job history
* start date
* end date
jobs
* job id
* job title
o min salary
o max salary
departments
* department id
* department name
employees
* employee id
o first name
* last name
U * email
o phone number
* hire date
o salary
o commission pct
locations
* location id
o street address
o postal code
* city
o state province
countries
* country id
o country name
regions
* region id
o region name
By Roger Zhang



h. Reverse Engineer the ER into a Relational Diagram


job_history
PF * employee_id NUMBER (6)
P * start_date DATE
* end_date DATE
F * job_id VARCHAR2 (10)
F department_id NUMBER (4)
jhist_emp_id_st_date_pk (employee_id, start_date)
jhist_dept_fk (department_id)
jhist_emp_fk (employee_id)
jhist_job_fk (job_id)
jhist_emp_id_st_date_pk (employee_id, start_date)
jhist_job_ix (job_id)
jhist_employee_ix (employee_id)
jhist_department_ix (department_id)
jobs
P * job_id VARCHAR2 (10)
* job_title VARCHAR2 (35)
min_salary NUMBER (6)
max_salary NUMBER (6)
job_id_pk (job_id)
job_id_pk (job_id)
departments
P * department_id NUMBER (4)
* department_name VARCHAR2 (30)
F manager_id NUMBER (6)
F location_id NUMBER (4)
dept_id_pk (department_id)
dept_loc_fk (location_id)
dept_mgr_fk (manager_id)
dept_id_pk (department_id)
dept_location_ix (location_id)
employees
P * employee_id NUMBER (6)
first_name VARCHAR2 (20)
* last_name VARCHAR2 (25)
U * email VARCHAR2 (25)
phone_number VARCHAR2 (20)
* hire_date DATE
F * job_id VARCHAR2 (10)
salary NUMBER (8,2)
commission_pct NUMBER (2,2)
F manager_id NUMBER (6)
F department_id NUMBER (4)
emp_emp_id_pk (employee_id)
emp_email_uk (email)
emp_dept_fk (department_id)
emp_job_fk (job_id)
emp_manager_fk (manager_id)
emp_emp_id_pk (employee_id)
emp_department_ix (department_id)
emp_job_ix (job_id)
emp_manager_ix (manager_id)
emp_name_ix (last_name, first_name)
locations
P * location_id NUMBER (4)
street_address VARCHAR2 (40)
postal_code VARCHAR2 (12)
* city VARCHAR2 (30)
state_province VARCHAR2 (25)
F country_id CHAR (2)
loc_id_pk (location_id)
loc_c_id_fk (country_id)
loc_id_pk (location_id)
loc_city_ix (city)
loc_state_province_ix (state_province)
loc_country_ix (country_id)
countries
P * country_id CHAR (2)
country_name VARCHAR2 (40)
F region_id NUMBER
country_c_id_pk (country_id)
countr_reg_fk (region_id)
regions
P * region_id NUMBER
region_name VARCHAR2 (25)
reg_id_pk (region_id)
reg_id_pk (region_id)
by Roger Zhang





i. All the diagrams must have a LEGENT in the graph

See above diagrams