

Lab Practice 1 (14/10/2022)

1. Log in into your Oracle SQL developer. Create all 8 tables provided below. Eg : Table Countries consists of 3 columns, **COUNTRY_ID**, **COUNTRY_NAME** and **REGION_ID**. Each column should follow the data type provided.

Create table

a) Countries

COUNTRIES Table

DESCRIBE countries

Name	Null?	Type
COUNTRY_ID	NOT NULL	CHAR(2)
COUNTRY_NAME		VARCHAR2(40)
REGION_ID		NUMBER

SELECT * FROM countries;

C0	COUNTRY_NAME	REGION_ID
CA	Canada	2
DE	Germany	1
UK	United Kingdom	1
US	United States of America	2

b) Departments

DEPARTMENTS Table

DESCRIBE departments

Name	Null?	Type
DEPARTMENT_ID	NOT NULL	NUMBER(4)
DEPARTMENT_NAME	NOT NULL	VARCHAR2(30)
MANAGER_ID		NUMBER(6)
LOCATION_ID		NUMBER(4)

SELECT * FROM departments;

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
10	Administration	200	1700
20	Marketing	201	1800
50	Shipping	124	1500
60	IT	103	1400
80	Sales	149	2500
90	Executive	100	1700
110	Accounting	206	1700
190	Contracting		1700

8 rows selected.

c) Employees

EMPLOYEES Table

DESCRIBE employees

Name	Null?	Type
EMPLOYEE_ID	NOT NULL	NUMBER(6)
FIRST_NAME		VARCHAR2(20)
LAST_NAME	NOT NULL	VARCHAR2(25)
EMAIL	NOT NULL	VARCHAR2(25)
PHONE_NUMBER		VARCHAR2(20)
HIRE_DATE	NOT NULL	DATE
JOB_ID	NOT NULL	VARCHAR2(10)
SALARY		NUMBER(8,2)
COMMISSION_PCT		NUMBER(2,2)
MANAGER_ID		NUMBER(6)
DEPARTMENT_ID		NUMBER(4)

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE
100	Steven	King	SKING	515.123.4567	17-JUN-87
101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-89
102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-93
103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-90
104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-91
107	Diana	Lorentz	DLORENTZ	590.423.5567	07-FEB-99
124	Kevin	Mourgos	KMOURGOS	650.123.5234	16-NOV-99
141	Trenna	Rajs	TRAJS	650.121.8009	17-OCT-95
142	Curtis	Davies	CDAVIES	650.121.2994	29-JAN-97
143	Randall	Mates	RMATOS	650.121.2874	15-MAR-98
144	Peter	Vargas	PVARGAS	650.121.2004	09-JUL-98
149	Eleni	Zlotkey	EZLOTKEY	011.44.1344.429018	29-JAN-00
174	Ellen	Abel	EABEL	011.44.1644.429267	11-MAY-96
176	Jonathon	Taylor	JTAYLOR	011.44.1644.429265	24-MAR-98
178	Kimberely	Grant	KGRANT	011.44.1644.429263	24-MAY-99
200	Jennifer	Whalen	JWHALEN	515.123.4444	17-SEP-87
201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-96
202	Pat	Fay	PFAY	603.123.6666	17-AUG-97
205	Shelley	Higgins	SHIGGINS	515.123.8080	07-JUN-94
206	William	Gietz	WGIEZT	515.123.8181	07-JUN-94

20 rows selected.

EMPLOYEES Table (continued)

JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
AD_PRES	24000			90
AD_VP	17000		100	90
AD_VP	17000		100	90
IT_PROG	9000		102	60
IT_PROG	6000		103	60
IT_PROG	4200		103	60
ST_MAN	5800		100	50
ST_CLERK	3500		124	50
ST_CLERK	3100		124	50
ST_CLERK	2600		124	50
ST_CLERK	2500		124	50
SA_MAN	10500	.2	100	80
SA_REP	11000	.3	149	80
SA_REP	8600	.2	149	80
SA_REP	7000	.15	149	
AD_ASST	4400		101	10
MK_MAN	13000		100	20
MK_REP	6000		201	20
AC_MGR	12000		101	110
AC_ACCOUNT	8300		205	110

20 rows selected.

d) Jobs**JOBS Table**

DESCRIBE jobs

Name	Null?	Type
JOB_ID	NOT NULL	VARCHAR2(10)
JOB_TITLE	NOT NULL	VARCHAR2(35)
MIN_SALARY		NUMBER(6)
MAX_SALARY		NUMBER(6)

SELECT * FROM jobs;

JOB_ID	JOB_TITLE	MIN_SALARY	MAX_SALARY
AD_PRES	President	20000	40000
AD_VP	Administration Vice President	15000	30000
AD_ASST	Administration Assistant	3000	6000
AC_MGR	Accounting Manager	8200	16000
AC_ACCOUNT	Public Accountant	4200	9000
SA_MAN	Sales Manager	10000	20000
SA_REP	Sales Representative	6000	12000
ST_MAN	Stock Manager	5500	8500
ST_CLERK	Stock Clerk	2000	5000
IT_PROG	Programmer	4000	10000
MK_MAN	Marketing Manager	9000	15000
MK_REP	Marketing Representative	4000	9000

12 rows selected.

e) Job Grades

JOB_GRADES Table

```
DESCRIBE job_grades
```

Name	Null?	Type
GRADE_LEVEL		VARCHAR2(3)
LOWEST_SAL		NUMBER
HIGHEST_SAL		NUMBER

```
SELECT * FROM job_grades;
```

GRA	LOWEST_SAL	HIGHEST_SAL
A	1000	2999
B	3000	5999
C	6000	9999
D	10000	14999
E	15000	24999
F	25000	40000

6 rows selected.

f) Job History

JOB_HISTORY Table

```
DESCRIBE job_history
```

Name	Null?	Type
EMPLOYEE_ID	NOT NULL	NUMBER(6)
START_DATE	NOT NULL	DATE
END_DATE	NOT NULL	DATE
JOB_ID	NOT NULL	VARCHAR2(10)
DEPARTMENT_ID		NUMBER(4)

```
SELECT * FROM job_history;
```

EMPLOYEE_ID	START_DATE	END_DATE	JOB_ID	DEPARTMENT_ID
102	13-JAN-93	24-JUL-98	IT_PROG	60
101	21-SEP-89	27-OCT-93	AC_ACCOUNT	110
101	28-OCT-93	15-MAR-97	AC_MGR	110
201	17-FEB-96	19-DEC-99	MK_REP	20
114	24-MAR-98	31-DEC-99	ST_CLERK	50
122	01-JAN-99	31-DEC-99	ST_CLERK	50
200	17-SEP-87	17-JUN-93	AD_ASST	90
176	24-MAR-98	31-DEC-98	SA_REP	80
176	01-JAN-99	31-DEC-99	SA_MAN	80
200	01-JUL-94	31-DEC-98	AC_ACCOUNT	90

10 rows selected.

g) Locations

LOCATIONS Table

DESCRIBE locations

Name	Null?	Type
LOCATION_ID	NOT NULL	NUMBER(4)
STREET_ADDRESS		VARCHAR2(40)
POSTAL_CODE		VARCHAR2(12)
CITY	NOT NULL	VARCHAR2(30)
STATE_PROVINCE		VARCHAR2(25)
COUNTRY_ID		CHAR(2)

SELECT * FROM locations;

LOCATION_ID	STREET_ADDRESS	POSTAL_CODE	CITY	STATE_PROVINCE	CO
1400	2014 Jabberwocky Rd	26192	Southlake	Texas	US
1500	2011 Interiors Blvd	99236	South San Francisco	California	US
1700	2004 Charade Rd	98199	Seattle	Washington	US
1800	460 Bloor St. W.	ON M5S 1X8	Toronto	Ontario	CA
2500	Magdalen Centre, The Oxford Science Park	OX9 9ZB	Oxford	Oxford	UK

h) Region

REGIONS Table

DESCRIBE regions

Name	Null?	Type
REGION_ID	NOT NULL	NUMBER
REGION_NAME		VARCHAR2(25)

SELECT * FROM regions;

REGION_ID	REGION_NAME
1	Europe
2	Americas
3	Asia
4	Middle East and Africa

2. Insert all data into the tables (Data provided in the “select * statement”)
3. Play around with the tables and data created. (You can alter the table, insert new row, delete row, drop table, delete all data without drop table, update data, etc)

**** All tables and data should be completed and available for use during our next lab (Week 2).**