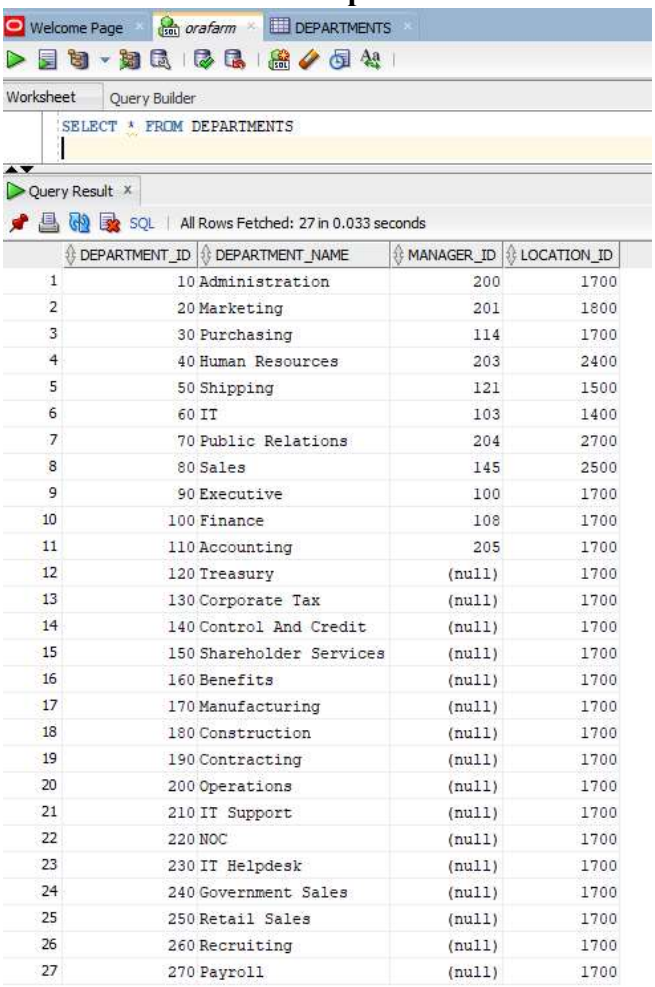
Aaron Lim (005893468)

CSE572

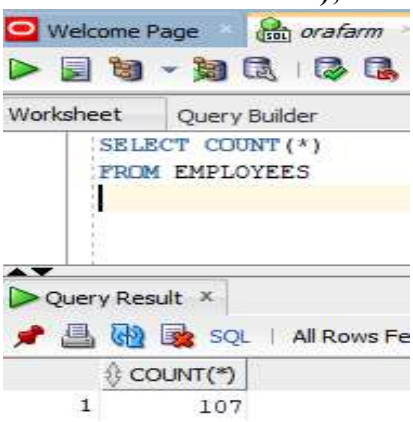
LAB 2

1.) List all the rows of the departments table.

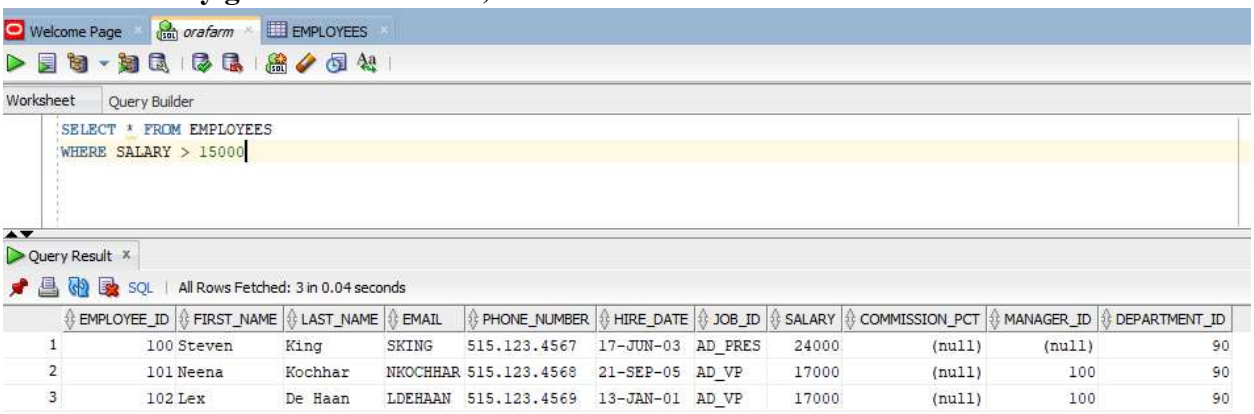


	DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
1	10	Administration	200	1700
2	20	Marketing	201	1800
3	30	Purchasing	114	1700
4	40	Human Resources	203	2400
5	50	Shipping	121	1500
6	60	IT	103	1400
7	70	Public Relations	204	2700
8	80	Sales	145	2500
9	90	Executive	100	1700
10	100	Finance	108	1700
11	110	Accounting	205	1700
12	120	Treasury	(null)	1700
13	130	Corporate Tax	(null)	1700
14	140	Control And Credit	(null)	1700
15	150	Shareholder Services	(null)	1700
16	160	Benefits	(null)	1700
17	170	Manufacturing	(null)	1700
18	180	Construction	(null)	1700
19	190	Contracting	(null)	1700
20	200	Operations	(null)	1700
21	210	IT Support	(null)	1700
22	220	NOC	(null)	1700
23	230	IT Helpdesk	(null)	1700
24	240	Government Sales	(null)	1700
25	250	Retail Sales	(null)	1700
26	260	Recruiting	(null)	1700
27	270	Payroll	(null)	1700

2.) **Find the number of employees in the database (hint: use the COUNT() aggregate function for this);**

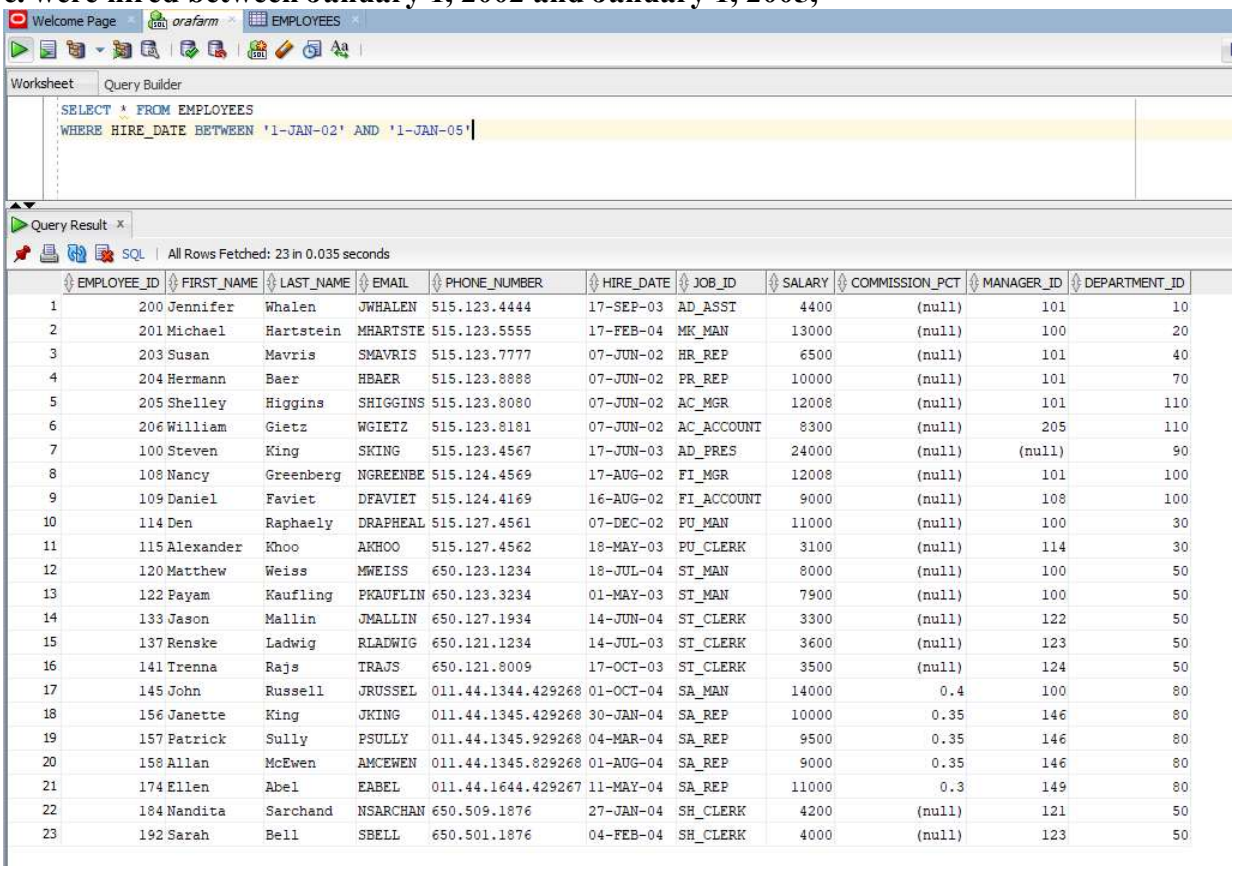


a. List the employees who:
b. have a salary greater than 15000,



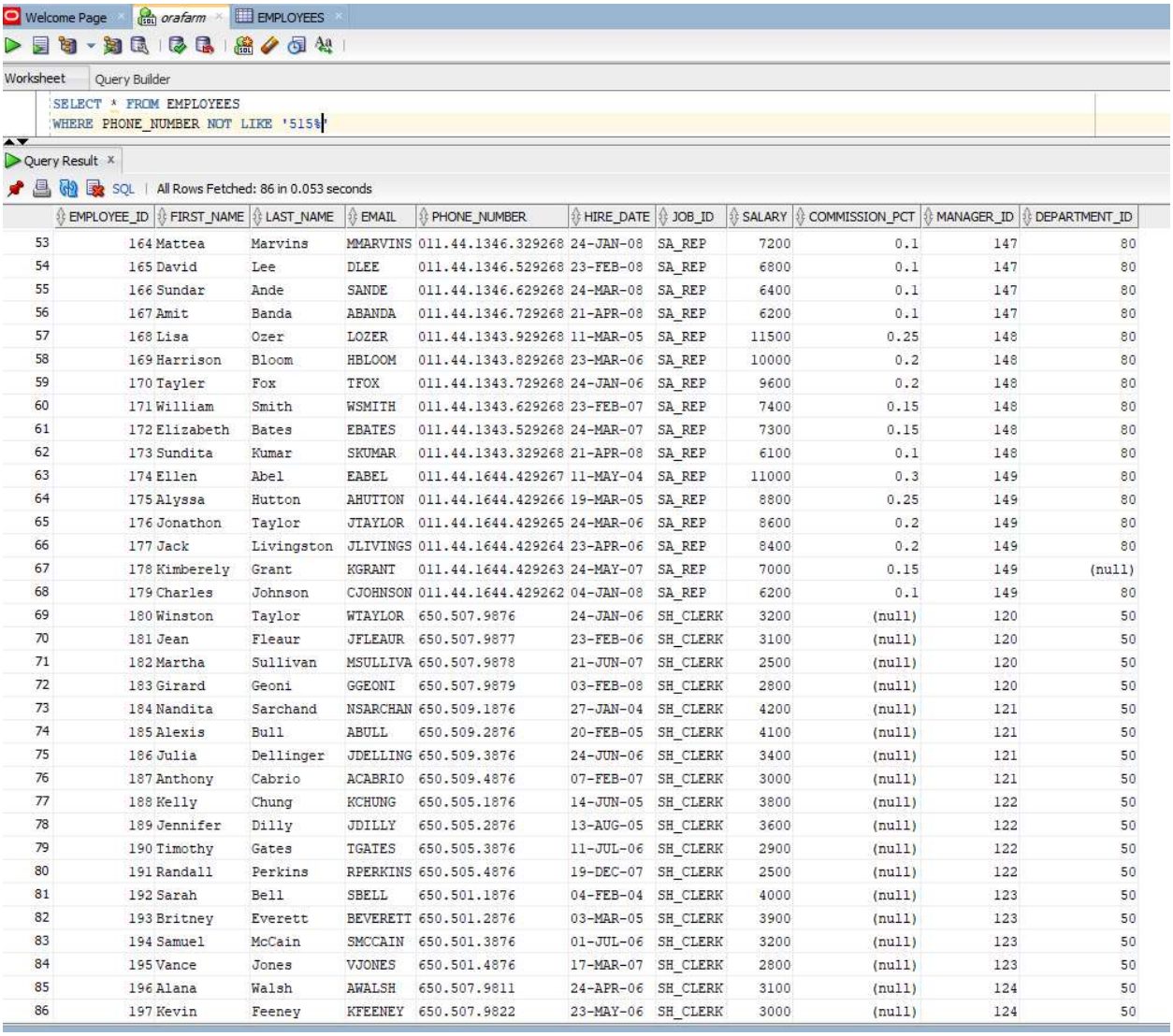
	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
2	101	Neena	Kochhar	NKOCHHAR	515.123.4568	21-SEP-05	AD_VP	17000	(null)	100	90
3	102	Lex	De Haan	LDEHAAN	515.123.4569	13-JAN-01	AD_VP	17000	(null)	100	90

c. were hired between January 1, 2002 and January 1, 2005,



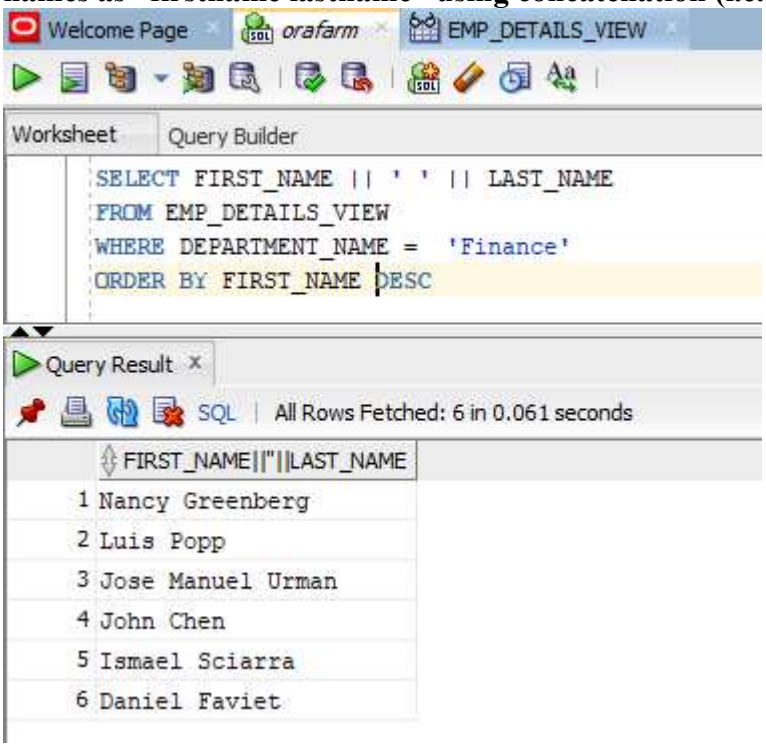
	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	200	Jennifer	Whalen	JWHALEN	515.123.4444	17-SEP-03	AD_ASST	4400	(null)	101	10
2	201	Michael	Hartstein	MHARTSTE	515.123.5555	17-FEB-04	MK_MAN	13000	(null)	100	20
3	203	Susan	Mavris	SMAVRIS	515.123.7777	07-JUN-02	HR_REP	6500	(null)	101	40
4	204	Hermann	Baer	HBAER	515.123.8888	07-JUN-02	PR_REP	10000	(null)	101	70
5	205	Shelley	Higgins	SHIGGINS	515.123.8080	07-JUN-02	AC_MGR	12008	(null)	101	110
6	206	William	Gietz	WGIETZ	515.123.8181	07-JUN-02	AC_ACCOUNT	8300	(null)	205	110
7	100	Steven	King	SKING	515.123.4567	17-JUN-03	AD_PRES	24000	(null)	(null)	90
8	108	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	(null)	101	100
9	109	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	(null)	108	100
10	114	Den	Raphaely	DRAPHEAL	515.127.4561	07-DEC-02	PU_MAN	11000	(null)	100	30
11	115	Alexander	Khoo	AKHOO	515.127.4562	18-MAY-03	PU_CLERK	3100	(null)	114	30
12	120	Matthew	Weiss	MWEISS	650.123.1234	18-JUL-04	ST_MAN	8000	(null)	100	50
13	122	Payam	Kaufling	PKAUFLIN	650.123.3234	01-MAY-03	ST_MAN	7900	(null)	100	50
14	133	Jason	Mallin	JMALLIN	650.127.1934	14-JUN-04	ST_CLERK	3300	(null)	122	50
15	137	Renske	Ladwig	RLADWIG	650.121.1234	14-JUL-03	ST_CLERK	3600	(null)	123	50
16	141	Trenna	Rajs	TRAJS	650.121.8009	17-OCT-03	ST_CLERK	3500	(null)	124	50
17	145	John	Russell	JRUSSEL	011.44.1344.429268	01-OCT-04	SA_MAN	14000	0.4	100	80
18	156	Janette	King	JKING	011.44.1345.429268	30-JAN-04	SA_REP	10000	0.35	146	80
19	157	Patrick	Sully	PSULLY	011.44.1345.929268	04-MAR-04	SA_REP	9500	0.35	146	80
20	158	Allan	McEwen	AMCEWEN	011.44.1345.829268	01-AUG-04	SA_REP	9000	0.35	146	80
21	174	Ellen	Abel	EABEL	011.44.1644.429267	11-MAY-04	SA_REP	11000	0.3	149	80
22	184	Nandita	Sarchand	NSARCHAN	650.509.1876	27-JAN-04	SH_CLERK	4200	(null)	121	50
23	192	Sarah	Bell	SBELL	650.501.1876	04-FEB-04	SH_CLERK	4000	(null)	123	50

3.) have a phone number that doesn't start with 515

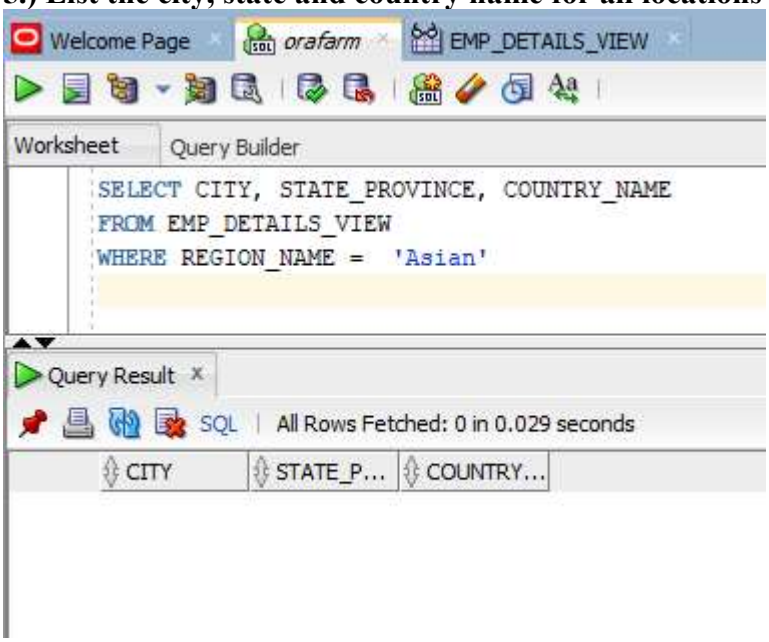


	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
53	164	Mattea	Marvins	MMARVINS	011.44.1346.329268	24-JAN-08	SA_REP	7200	0.1	147	80
54	165	David	Lee	DLEE	011.44.1346.529268	23-FEB-08	SA_REP	6800	0.1	147	80
55	166	Sundar	Ande	SANDE	011.44.1346.629268	24-MAR-08	SA_REP	6400	0.1	147	80
56	167	Amit	Banda	ABANDA	011.44.1346.729268	21-APR-08	SA_REP	6200	0.1	147	80
57	168	Lisa	Ozer	LOZER	011.44.1343.929268	11-MAR-05	SA_REP	11500	0.25	148	80
58	169	Harrison	Bloom	HBLOOM	011.44.1343.829268	23-MAR-06	SA_REP	10000	0.2	148	80
59	170	Tayler	Fox	TFOX	011.44.1343.729268	24-JAN-06	SA_REP	9600	0.2	148	80
60	171	William	Smith	WSMITH	011.44.1343.629268	23-FEB-07	SA_REP	7400	0.15	148	80
61	172	Elizabeth	Bates	EBATES	011.44.1343.529268	24-MAR-07	SA_REP	7300	0.15	148	80
62	173	Sundita	Kumar	SKUMAR	011.44.1343.329268	21-APR-08	SA_REP	6100	0.1	148	80
63	174	Ellen	Abel	EABEL	011.44.1644.429267	11-MAY-04	SA_REP	11000	0.3	149	80
64	175	Alyssa	Hutton	AHUTTON	011.44.1644.429266	19-MAR-05	SA_REP	8800	0.25	149	80
65	176	Jonathon	Taylor	JTAYLOR	011.44.1644.429265	24-MAR-06	SA_REP	8600	0.2	149	80
66	177	Jack	Livingston	JLIVINGS	011.44.1644.429264	23-APR-06	SA_REP	8400	0.2	149	80
67	178	Kimberely	Grant	KGRANT	011.44.1644.429263	24-MAY-07	SA_REP	7000	0.15	149	(null)
68	179	Charles	Johnson	CJOHNSON	011.44.1644.429262	04-JAN-08	SA_REP	6200	0.1	149	80
69	180	Winston	Taylor	WTAYLOR	650.507.9876	24-JAN-06	SH_CLERK	3200	(null)	120	50
70	181	Jean	Fleaur	JFLEAUR	650.507.9877	23-FEB-06	SH_CLERK	3100	(null)	120	50
71	182	Martha	Sullivan	MSULLIVA	650.507.9878	21-JUN-07	SH_CLERK	2500	(null)	120	50
72	183	Girard	Geoni	GGEONI	650.507.9879	03-FEB-08	SH_CLERK	2800	(null)	120	50
73	184	Nandita	Sarchand	NSARCHAN	650.509.1876	27-JAN-04	SH_CLERK	4200	(null)	121	50
74	185	Alexis	Bull	ABULL	650.509.2876	20-FEB-05	SH_CLERK	4100	(null)	121	50
75	186	Julia	Dellinger	JDELLING	650.509.3876	24-JUN-06	SH_CLERK	3400	(null)	121	50
76	187	Anthony	Cabrio	ACABRIO	650.509.4876	07-FEB-07	SH_CLERK	3000	(null)	121	50
77	188	Kelly	Chung	KCHUNG	650.505.1876	14-JUN-05	SH_CLERK	3800	(null)	122	50
78	189	Jennifer	Dilly	JDILLY	650.505.2876	13-AUG-05	SH_CLERK	3600	(null)	122	50
79	190	Timothy	Gates	TGATES	650.505.3876	11-JUL-06	SH_CLERK	2900	(null)	122	50
80	191	Randall	Perkins	RPERKINS	650.505.4876	19-DEC-07	SH_CLERK	2500	(null)	122	50
81	192	Sarah	Bell	SBELL	650.501.1876	04-FEB-04	SH_CLERK	4000	(null)	123	50
82	193	Britney	Everett	BEVERETT	650.501.2876	03-MAR-05	SH_CLERK	3900	(null)	123	50
83	194	Samuel	McCain	SMCCAIN	650.501.3876	01-JUL-06	SH_CLERK	3200	(null)	123	50
84	195	Vance	Jones	VJONES	650.501.4876	17-MAR-07	SH_CLERK	2800	(null)	123	50
85	196	Alana	Walsh	AWALSH	650.507.9811	24-APR-06	SH_CLERK	3100	(null)	124	50
86	197	Kevin	Feeney	KFEENEY	650.507.9822	23-MAY-06	SH_CLERK	3000	(null)	124	50

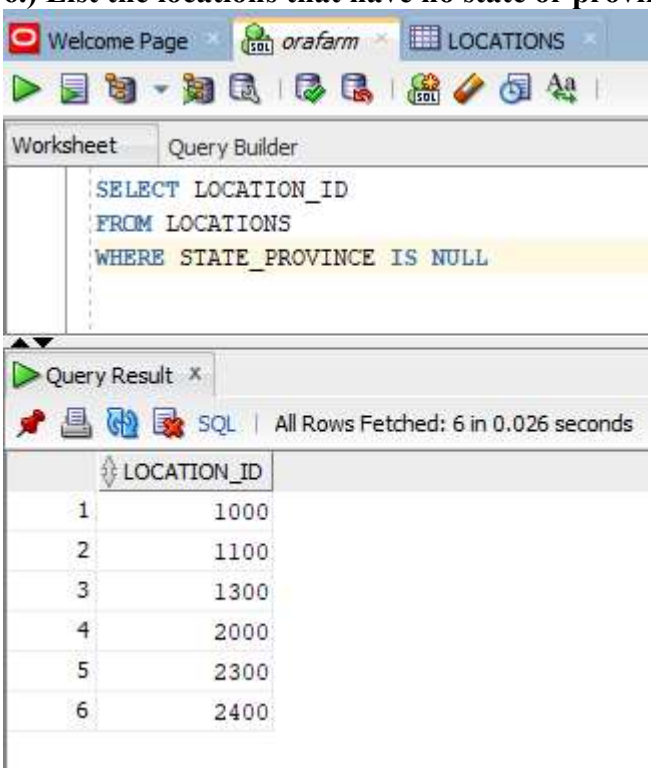
4.) List the names of the employees who are in the finance department. Try to format the names as "firstname lastname" using concatenation (i.e., ||) and order them alphabetically.



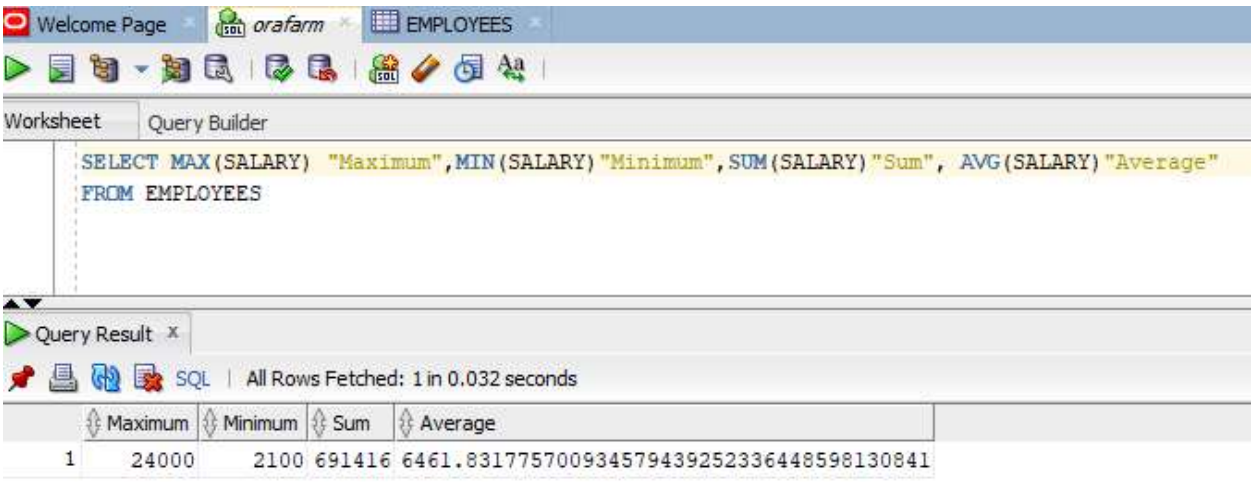
5.) List the city, state and country name for all locations in the Asian region.



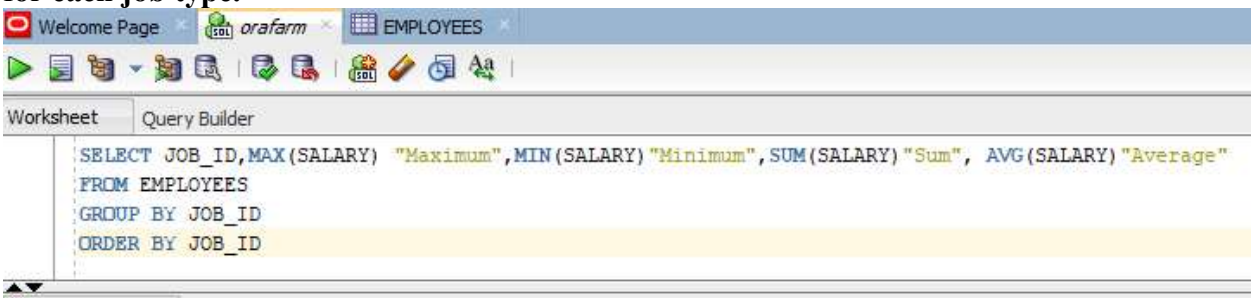
6.) List the locations that have no state or province specified in the database.



7.) Create a query to display the highest, lowest, sum and average salary of all employees. Label the columns Maximum, Minimum, Sum and Average, respectively



8.) Modify the query in Step 7 to display the minimum, maximum, sum, and average salary for each job type.

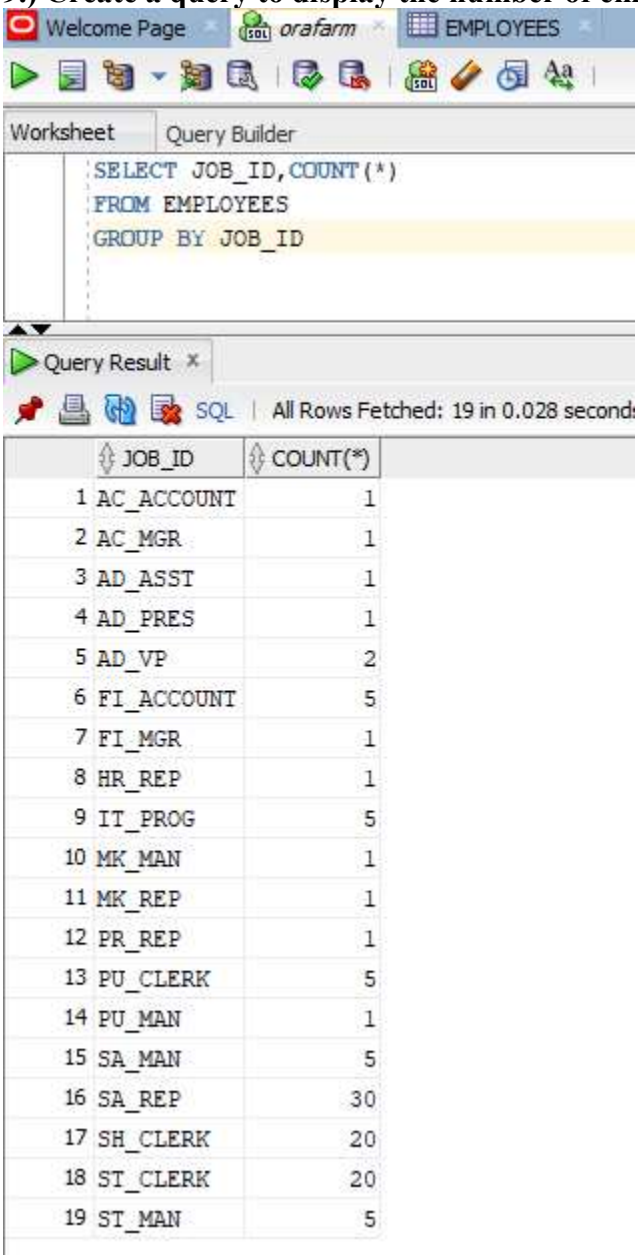


Query Result

SQL | All Rows Fetched: 19 in 0.033 seconds

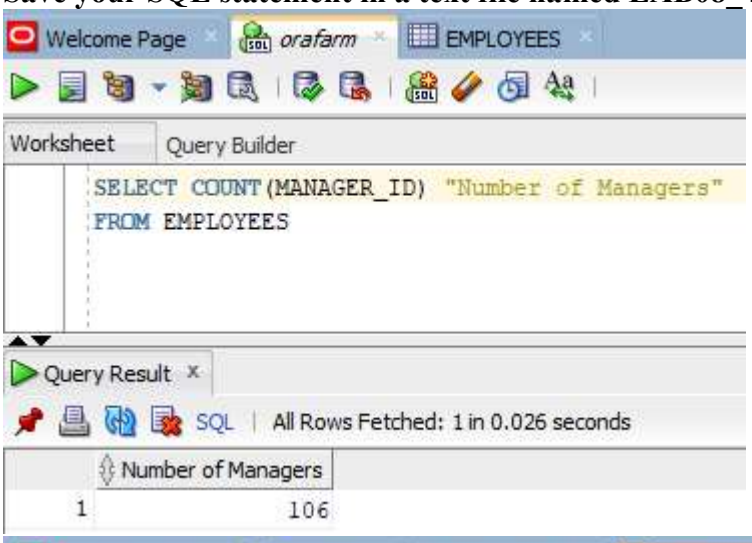
	JOB_ID	Maximum	Minimum	Sum	Average
1	AC_ACCOUNT	8300	8300	8300	8300
2	AC_MGR	12008	12008	12008	12008
3	AD_ASST	4400	4400	4400	4400
4	AD_PRES	24000	24000	24000	24000
5	AD_VP	17000	17000	34000	17000
6	FI_ACCOUNT	9000	6900	39600	7920
7	FI_MGR	12008	12008	12008	12008
8	HR_REP	6500	6500	6500	6500
9	IT_PROG	9000	4200	28800	5760
10	MK_MAN	13000	13000	13000	13000
11	MK_REP	6000	6000	6000	6000
12	PR_REP	10000	10000	10000	10000
13	PU_CLERK	3100	2500	13900	2780
14	PU_MAN	11000	11000	11000	11000
15	SA_MAN	14000	10500	61000	12200
16	SA_REP	11500	6100	250500	8350
17	SH_CLERK	4200	2500	64300	3215
18	ST_CLERK	3600	2100	55700	2785
19	ST_MAN	8200	5800	36400	7280

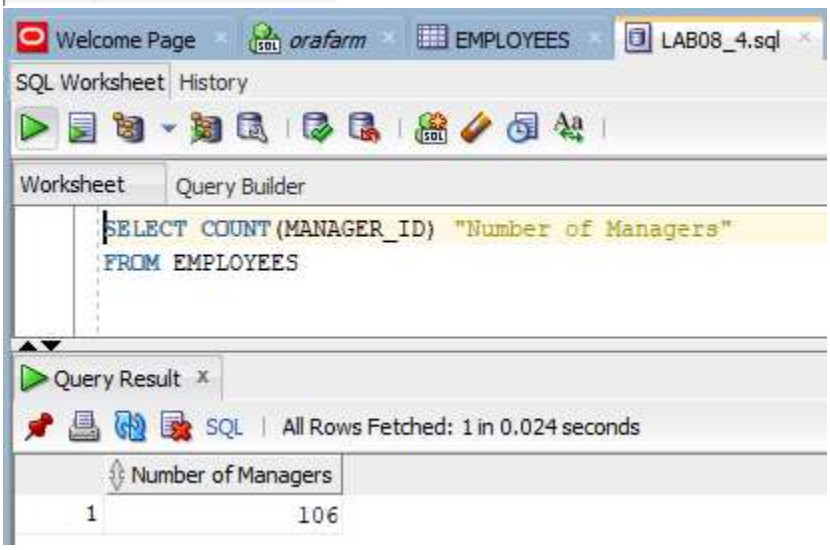
9.) Create a query to display the number of employees with the same job.



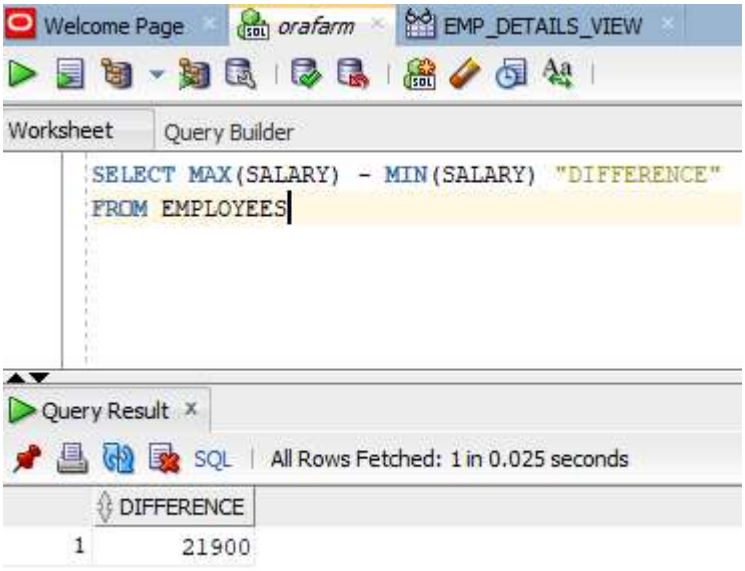
	JOB_ID	COUNT(*)
1	AC_ACCOUNT	1
2	AC_MGR	1
3	AD_ASST	1
4	AD_PRES	1
5	AD_VP	2
6	FI_ACCOUNT	5
7	FI_MGR	1
8	HR_REP	1
9	IT_PROG	5
10	MK_MAN	1
11	MK_REP	1
12	PR_REP	1
13	PU_CLERK	5
14	PU_MAN	1
15	SA_MAN	5
16	SA_REP	30
17	SH_CLERK	20
18	ST_CLERK	20
19	ST_MAN	5

10.) Determine the number of managers without listing them. Label the column Number of Managers. HINT: Use the MANAGER_ID column to determine the number of managers. Save your SQL statement in a text file named LAB08_4.sql. Run your query.

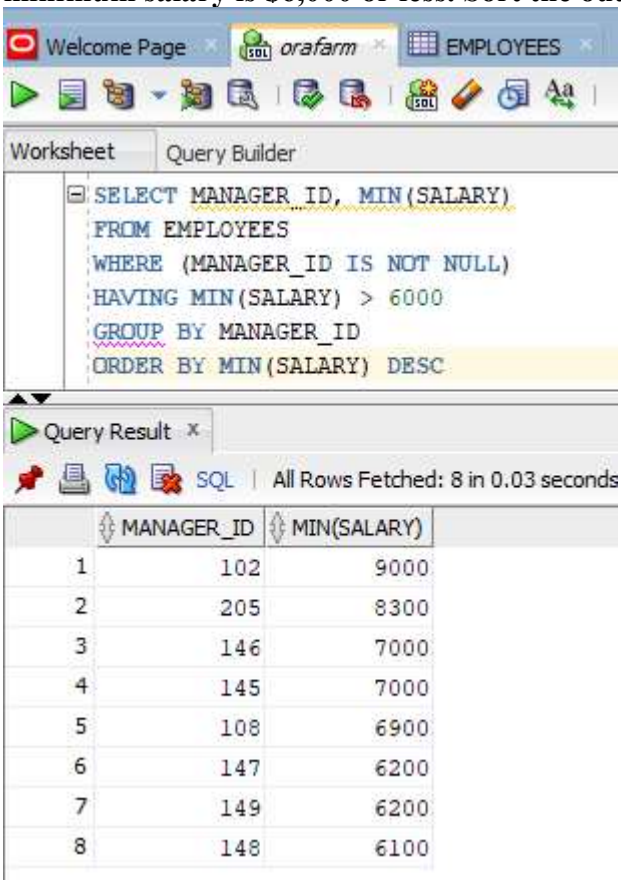




11.) Write a query that displays the difference between the highest and lowest salaries. Label the column DIFFERENCE.

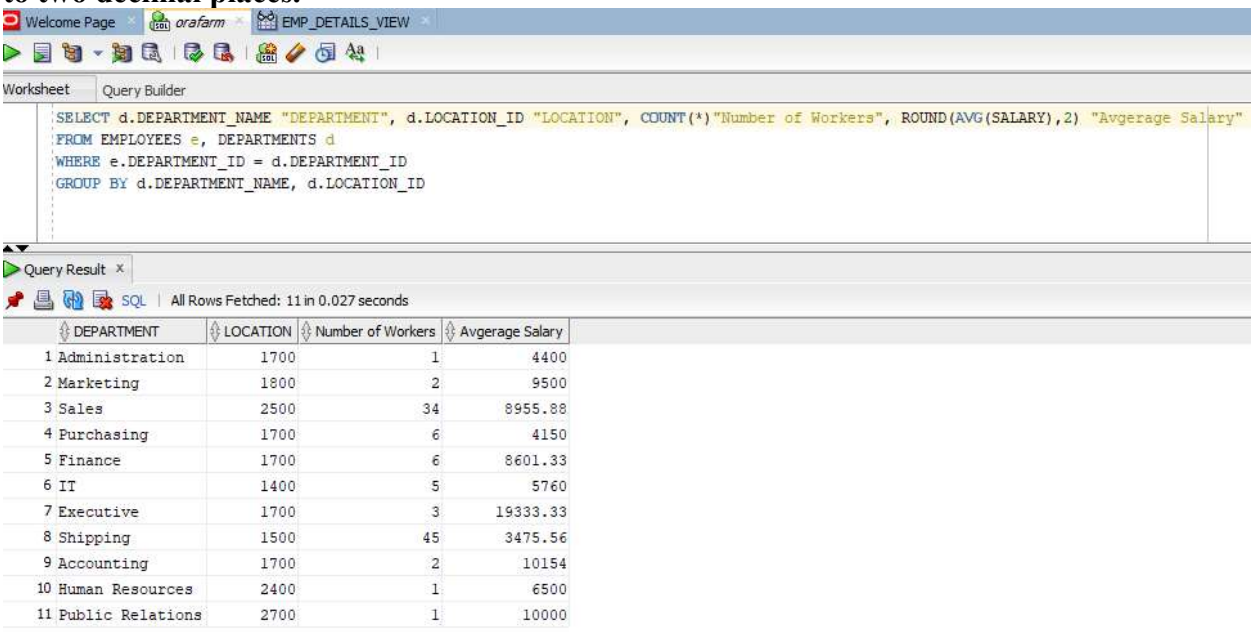


12.) Display the manager number and the salary of the lowest paid employee for that manager. Exclude anyone whose manager is not known. Exclude any groups where the minimum salary is $6,000 or less. Sort the output in descending order of salary.



	MANAGER_ID	MIN(SALARY)
1	102	9000
2	205	8300
3	146	7000
4	145	7000
5	108	6900
6	147	6200
7	149	6200
8	148	6100

13.) Write a query to display each department's name, location, number of employees, and the average salary for all employees in that department. Label the columns Department , Location, Number of Workers, and Average Salary, respectively. Round the average salary to two decimal places.



	DEPARTMENT	LOCATION	Number of Workers	Avgerage Salary
1	Administration	1700	1	4400
2	Marketing	1800	2	9500
3	Sales	2500	34	8955.88
4	Purchasing	1700	6	4150
5	Finance	1700	6	8601.33
6	IT	1400	5	5760
7	Executive	1700	3	19333.33
8	Shipping	1500	45	3475.56
9	Accounting	1700	2	10154
10	Human Resources	2400	1	6500
11	Public Relations	2700	1	10000