

Database Systems

LAB#01 (Practice Problems)



23K-2001

BCS-5J

Q1:

Oracle SQL Developer : SidhuMuziWala_hr

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Connections

- TNS
- hr
- lab2
- SidhuMuziWala
- SidhuMuziWala_hr
 - Tables (Filtered)
 - COUNTRIES
 - CUSTOMERS
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 - JOB_HISTORY
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 - LOCATIONS
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 - ORDERS_AUDIT
 - PAYMENTS
 - PRODUCTS
 - REGIONS
 - RESERVATION

Reports

- All Reports
- Analytic View Reports
- Data Dictionary Reports
- Data Modeler Reports
- OLAP Reports
- TimesTen Reports
- User Defined Reports

Welcome Page x SidhuMuziWala x SidhuMuziWala_hr x EMPLOYEES x

Worksheet Query Builder

```
SELECT * FROM EMPLOYEES
WHERE MANAGER_ID=101 AND DEPARTMENT_ID=50;
```

Query Result x

All Rows Fetched: 0 in 0.008 seconds

EMPLOYEE...	FIRST_NA...	LAST_NAME	EMAIL	PHONE_N...	HIRE_DATE	JOB_ID	SALARY	COMMISS...	MANAGER...	DEPARTM...
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Q2:

Oracle SQL Developer : SidhuMuziWala_hr

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 - EMPLOYEE_ID
 - FIRST_NAME
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 - EMAIL
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 - SALARY
 - COMMISSION_PCT
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 - DEPARTMENT_ID
 - JOB_HISTORY
 - JOBS
 - LOCATIONS
 - ORDERS

Worksheet Query Builder

```
SELECT * FROM DEPARTMENTS
WHERE DEPARTMENT_NAME = 'Finance' OR DEPARTMENT_NAME = 'Sales' OR DEPARTMENT_NAME = 'SA_RE';
```

Reports

- All Reports
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- TimesTen Reports
- User Defined Reports

Query Result x

All Rows Fetched: 2 in 0.008 seconds

	DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
1	80	Sales	145	2500
2	100	Finance	108	1700

Q3:

Oracle SQL Developer : hr

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Welcome Page Muzammil hr JOBS

Worksheet Query Builder

```
SELECT JOB_TITLE, ((MIN_SALARY + MAX_SALARY) / 2) AS AVG_SALARY
FROM JOBS WHERE JOB_TITLE LIKE '%Manager%';
```

Query Result x

SQL | All Rows Fetched: 6 in 0.002 seconds

	JOB_TITLE	AVG_SALARY
1	Finance Manager	12100
2	Accounting Manager	12100
3	Sales Manager	15040
4	Purchasing Manager	11500
5	Stock Manager	7000
6	Marketing Manager	12000

Q4:

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 - EMPLOYEES
 - EMPLOYEE_ID
 - FIRST_NAME
 - LAST_NAME
 - EMAIL
 - PHONE_NUMBER
 - HIRE_DATE
 - JOB_ID
 - SALARY
 - COMMISSION_PCT
 - MANAGER_ID
 - DEPARTMENT_ID
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Reports

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Worksheet Query Builder

```
SELECT * FROM EMPLOYEES
WHERE SALARY < 10000;
```

Query Result

SQL | Fetched 50 rows in 0.009 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
2	104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	IT_PROG	6000	(null)	103	60
3	105	David	Austin	DAUSTIN	590.423.4569	25-JUN-05	IT_PROG	4800	(null)	103	60
4	106	Valli	Pataballa	VPATABAL	590.423.4560	05-FEB-06	IT_PROG	4800	(null)	103	60
5	107	Diana	Lorentz	DLORENTZ	590.423.5567	07-FEB-07	IT_PROG	4200	(null)	103	60
6	109	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	(null)	108	100
7	110	John	Chen	JCHEN	515.124.4269	28-SEP-05	FI_ACCOUNT	8200	(null)	108	100
8	111	Ismael	Sciarra	ISCIARRA	515.124.4369	30-SEP-05	FI_ACCOUNT	7700	(null)	108	100
9	112	Jose Manuel	Urman	JMURMAN	515.124.4469	07-MAR-06	FI_ACCOUNT	7800	(null)	108	100
10	113	Luis	Popp	LPOPP	515.124.4567	07-DEC-07	FI_ACCOUNT	6900	(null)	108	100
11	115	Alexander	Khoo	AKHOO	515.127.4562	18-MAY-03	PU_CLERK	3100	(null)	114	30
12	116	Shelli	Baida	SBAIDA	515.127.4563	24-DEC-05	PU_CLERK	2900	(null)	114	30
13	117	Sigal	Tobias	STOBIAS	515.127.4564	24-JUL-05	PU_CLERK	2800	(null)	114	30
14	118	Guy	Himuro	GHIMURO	515.127.4565	15-NOV-06	PU_CLERK	2600	(null)	114	30
15	119	Karen	Colmenares	KCOLMENA	515.127.4566	10-AUG-07	PU_CLERK	2500	(null)	114	30
16	120	Matthew	Weiss	MWEISS	650.123.1234	18-JUL-04	ST_MAN	8000	(null)	100	50
17	121	Adam	Fripp	AFRIPP	650.123.2234	10-APR-05	ST_MAN	8200	(null)	100	50
18	122	Payam	Kaufling	PKAUFLIN	650.123.3234	01-MAY-03	ST_MAN	7900	(null)	100	50

Q5:

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 - EMPLOYEES
 - EMPLOYEE_ID
 - FIRST_NAME
 - LAST_NAME
 - EMAIL
 - PHONE_NUMBER
 - HIRE_DATE
 - JOB_ID
 - SALARY
 - COMMISSION_PCT
 - MANAGER_ID
 - DEPARTMENT_ID
 - JOB_HISTORY
 - JOBS
 - LOCATIONS
 - ORDERS
 - ORDERS_AUDIT
 - PAYMENTS
 - PRODUCTS

Worksheet Query Builder

```
SELECT * FROM JOBS
WHERE MAX_SALARY <= 20000;
```

Reports

- All Reports
 - Analytic View Reports
 - Data Dictionary Reports
 - Data Modeler Reports
 - OLAP Reports
 - TimesTen Reports
 - User Defined Reports

Query Result x

SQL | All Rows Fetched: 16 in 0.009 seconds

	JOB_ID	JOB_TITLE	MIN_SALARY	MAX_SALARY
1	AD_ASSI	Administration Assistant	3000	6000
2	FI_MGR	Finance Manager	8200	16000
3	FI_ACCOUNT	Accountant	4200	9000
4	AC_MGR	Accounting Manager	8200	16000
5	AC_ACCOUNT	Public Accountant	4200	9000
6	SA_REP	Sales Representative	6000	12008
7	PU_MAN	Purchasing Manager	8000	15000
8	PU_CLERK	Purchasing Clerk	2500	5500
9	ST_MAN	Stock Manager	5500	8500
10	ST_CLERK	Stock Clerk	2008	5000
11	SH_CLERK	Shipping Clerk	2500	5500
12	IT_PROG	Programmer	4000	10000
13	MK_MAN	Marketing Manager	9000	15000
14	MK_REP	Marketing Representative	4000	9000
15	HR_REP	Human Resources Representative	4000	9000
16	PR_REP	Public Relations Representative	4500	10500

Q6:

Oracle SQL Developer : SidhuMuziWala_hr

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 - PHONE_NUMBER
 - HIRE_DATE
 - JOB_ID
 - SALARY
 - COMMISSION_PCT
 - MANAGER_ID
 - DEPARTMENT_ID
 - JOB_HISTORY
 - JOBS
 - LOCATIONS
 - ORDERS

Worksheet Query Builder

```
SELECT EMPLOYEE_ID, FIRST_NAME, LAST_NAME, DEPARTMENT_ID FROM EMPLOYEES
WHERE LAST_NAME='Jones';
```

Reports

- All Reports
- Analytic View Reports
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Query Result x

SQL | All Rows Fetched: 1 in 0.009 seconds

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	DEPARTMENT_ID
1	195 Vance	Jones	50

Q7:

Oracle SQL Developer : hr

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Welcome Page x Muzammil x hr x JOBS x

Worksheet Query Builder

```
SELECT CITY FROM LOCATIONS WHERE COUNTRY_ID = 'IT';
```

Query Result x

SQL | All Rows Fetched: 2 in 0.003 seconds

	CITY
1	Roma
2	Venice

Q8:

Oracle SQL Developer : hr

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Welcome Page x Muzammil x hr x JOBS x

Worksheet Query Builder

```
SELECT PHONE_NUMBER FROM EMPLOYEES
WHERE DEPARTMENT_ID = 80 AND MANAGER_ID = 100;
```

Query Result x

SQL | All Rows Fetched: 5 in 0.002 seconds

	PHONE_NUMBER
1	011.44.1344.429268
2	011.44.1344.467268
3	011.44.1344.429278
4	011.44.1344.619268
5	011.44.1344.429018

Q9:

Oracle SQL Developer : hr

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Welcome Page Muzammil hr EMPLOYEES

Worksheet Query Builder

```
SELECT * FROM EMPLOYEES
WHERE NOT DEPARTMENT_ID = 80;
```

Query Result x

SQL | Fetched 50 rows in 0.004 seconds

	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
4	103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
5	104	Bruce	Ernst	BERNST	590.423.4568	21-MAY-07	IT_PROG	6000	(null)	103	60
6	105	David	Austin	DAUSTIN	590.423.4569	25-JUN-05	IT_PROG	4800	(null)	103	60
7	106	Valli	Pataballa	VPATABAL	590.423.4560	05-FEB-06	IT_PROG	4800	(null)	103	60
8	107	Diana	Lorentz	DLORENTZ	590.423.5567	07-FEB-07	IT_PROG	4200	(null)	103	60
9	108	Nancy	Greenberg	NGREENBE	515.124.4569	17-AUG-02	FI_MGR	12008	(null)	101	100
10	109	Daniel	Faviet	DFAVIET	515.124.4169	16-AUG-02	FI_ACCOUNT	9000	(null)	108	100
11	110	John	Chen	JCHEN	515.124.4269	28-SEP-05	FI_ACCOUNT	8200	(null)	108	100
12	111	Ismael	Sciarra	ISCIARRA	515.124.4369	30-SEP-05	FI_ACCOUNT	7700	(null)	108	100
13	112	Jose Manuel	Urman	JMURMAN	515.124.4469	07-MAR-06	FI_ACCOUNT	7800	(null)	108	100
14	113	Luis	Popp	LPOPP	515.124.4567	07-DEC-07	FI_ACCOUNT	6900	(null)	108	100
15	114	Den	Raphaely	DRAPHEAL	515.127.4561	07-DEC-02	PU_MAN	11000	(null)	100	30
16	115	Alexander	Khoo	AKHOO	515.127.4562	18-MAY-03	PU_CLERK	3100	(null)	114	30
17	116	Shelli	Baida	SBIDA	515.127.4563	24-DEC-05	PU_CLERK	2900	(null)	114	30
18	117	Sigal	Tobias	STOBIAS	515.127.4564	24-JUL-05	PU_CLERK	2800	(null)	114	30
19	118	Guy	Himuro	GHIMURO	515.127.4565	15-NOV-06	PU_CLERK	2600	(null)	114	30
20	119	Karen	Colmenares	KCOLMENA	515.127.4566	10-AUG-07	PU_CLERK	2500	(null)	114	30
21	120	Matthew	Weiss	MWEISS	650.123.1234	18-JUL-04	ST_MAN	8000	(null)	100	50
22	121	Adam	Fripp	AFRIPP	650.123.2234	10-APR-05	ST_MAN	8200	(null)	100	50
23	122	Pavam	Kaufling	PKAUFLIN	650.123.3234	01-MAY-03	ST_MAN	7900	(null)	100	50

Q10:

Oracle SQL Developer : hr

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Welcome Page Muzammil hr EMPLOYEES

Worksheet Query Builder

```
SELECT * FROM EMPLOYEES WHERE FIRST_NAME LIKE 'A%';
```

Query Result x

SQL | All Rows Fetched: 10 in 0.002 seconds

	EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
1	167	Amit	Banda	ABANDA	011.44.1346.729268	21-APR-08	SA_REP	6200	0.1	147	80
2	185	Alexis	Bull	ABULL	650.509.2876	20-FEB-05	SH_CLERK	4100	(null)	121	50
3	187	Anthony	Cabrio	ACABRIO	650.509.4876	07-FEB-07	SH_CLERK	3000	(null)	121	50
4	147	Alberto	Errazuriz	AERRAZUR	011.44.1344.429278	10-MAR-05	SA_MAN	12000	0.3	100	80
5	121	Adam	Fripp	AFRIPP	650.123.2234	10-APR-05	ST_MAN	8200	(null)	100	50
6	103	Alexander	Hunold	AHUNOLD	590.423.4567	03-JAN-06	IT_PROG	9000	(null)	102	60
7	175	Alyssa	Hutton	AHUTTON	011.44.1644.429266	19-MAR-05	SA_REP	8800	0.25	149	80
8	115	Alexander	Khoo	AKHOO	515.127.4562	18-MAY-03	PU_CLERK	3100	(null)	114	30
9	158	Allan	McEwen	AMCEWEN	011.44.1345.829268	01-AUG-04	SA_REP	9000	0.35	146	80
10	196	Alana	Walsh	AWALSH	650.507.9811	24-APR-06	SH_CLERK	3100	(null)	124	50

Q11:

Oracle SQL Developer : hr

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Welcome Page Muzammil hr EMPLOYEES

Worksheet Query Builder

```
SELECT * FROM EMPLOYEES
WHERE DEPARTMENT_ID = 80 AND SALARY > 50000;
```

Query Result x

SQL | All Rows Fetched: 0 in 0.001 seconds

EMPLOYEE...	FIRST_NA...	LAST_NAME	EMAIL	PHONE_N...	HIRE_DATE	JOB_ID	SALARY	COMMISS...	MANAGER...	DEPARTM...
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