

Hafsa Rashid

23K-0064

BS-AI 5A

DBS Lab # 1

## POST-LAB TASKS

### Task 11 :

Worksheet: Query Builder

select \* from employees where hire\_date between date '2005-01-01' and date '2006-12-31';

Script Output x Query Result x

Fetches 50 rows in 0.006 seconds

|    | EMPLOYEE_ID | FIRST_NAME  | LAST_NAME   | EMAIL    | PHONE_NUMBER       | HIRE_DATE | JOB_ID     | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|----|-------------|-------------|-------------|----------|--------------------|-----------|------------|--------|----------------|------------|---------------|
| 1  | 101         | Neena       | Kochhar     | NKCOCHHR | 515.123.4568       | 21-SEP-05 | AD VP      | 17000  | (null)         | 100        | 90            |
| 2  | 103         | Alexander   | Hunold      | AHUNOLD  | 590.423.4567       | 03-JAN-06 | IT PROG    | 9000   | (null)         | 102        | 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  | 110         | John        | Chen        | JCHEN    | 515.124.4269       | 28-SEP-05 | FI ACCOUNT | 8200   | (null)         | 108        | 100           |
| 6  | 111         | Ismael      | Sciarra     | ISCIARRA | 515.124.4369       | 30-SEP-05 | FI ACCOUNT | 7700   | (null)         | 108        | 100           |
| 7  | 112         | Jose Manuel | Urman       | JMURMAN  | 515.124.4469       | 07-MAR-06 | FI ACCOUNT | 7800   | (null)         | 108        | 100           |
| 8  | 116         | Shelli      | Baida       | SBAIDA   | 515.127.4563       | 24-DEC-05 | PU CLERK   | 2900   | (null)         | 114        | 30            |
| 9  | 117         | Sigal       | Tobias      | STOBIAS  | 515.127.4564       | 24-JUL-05 | PU CLERK   | 2800   | (null)         | 114        | 30            |
| 10 | 118         | Guv         | Himuro      | GHIMURO  | 515.127.4565       | 15-NOV-06 | PU CLERK   | 2600   | (null)         | 114        | 30            |
| 11 | 121         | Adam        | Frippe      | AFRIPP   | 650.123.2234       | 10-APR-05 | ST MAN     | 8200   | (null)         | 100        | 50            |
| 12 | 123         | Shanta      | Vollman     | SVOLLMAN | 650.123.4234       | 10-OCT-05 | ST MAN     | 6500   | (null)         | 100        | 50            |
| 13 | 125         | Julia       | Nayer       | JNAYER   | 650.124.1214       | 16-JUL-05 | ST CLERK   | 3200   | (null)         | 120        | 50            |
| 14 | 126         | Irene       | Mikkilineni | IMIKKILI | 650.124.1224       | 28-SEP-06 | ST CLERK   | 2700   | (null)         | 120        | 50            |
| 15 | 129         | Laura       | Bissot      | LBISSOT  | 650.124.5234       | 20-AUG-05 | ST CLERK   | 3300   | (null)         | 121        | 50            |
| 16 | 130         | Mozhe       | Atkinson    | MATKINSO | 650.124.6234       | 30-OCT-05 | ST CLERK   | 2800   | (null)         | 121        | 50            |
| 17 | 131         | James       | Marlow      | JAMLOW   | 650.124.7234       | 16-FEB-05 | ST CLERK   | 2500   | (null)         | 121        | 50            |
| 18 | 134         | Michael     | Rogers      | MROGERS  | 650.127.1834       | 26-AUG-06 | ST CLERK   | 2900   | (null)         | 122        | 50            |
| 19 | 138         | Stephen     | Stiles      | SSTILES  | 650.121.2034       | 26-OCT-05 | ST CLERK   | 3200   | (null)         | 123        | 50            |
| 20 | 139         | John        | Seo         | JSEO     | 650.121.2019       | 12-FEB-06 | ST CLERK   | 2700   | (null)         | 123        | 50            |
| 21 | 140         | Joshua      | Patel       | JPATEL   | 650.121.1834       | 06-APR-06 | ST CLERK   | 2500   | (null)         | 123        | 50            |
| 22 | 142         | Curtis      | Davies      | CDAVIES  | 650.121.2994       | 29-JAN-05 | ST CLERK   | 3100   | (null)         | 124        | 50            |
| 23 | 143         | Randall     | Matos       | RMATOS   | 650.121.2874       | 15-MAR-06 | ST CLERK   | 2600   | (null)         | 124        | 50            |
| 24 | 144         | Peter       | Vargas      | PVARGAS  | 650.121.2004       | 09-JUL-06 | ST CLERK   | 2500   | (null)         | 124        | 50            |
| 25 | 146         | Karen       | Partners    | KPARTNER | 011.44.1344.467268 | 05-JAN-05 | SA MAN     | 13500  | 0.3            | 100        | 80            |
| 26 | 147         | Alberto     | Errazuriz   | AERRAZUR | 011.44.1344.429278 | 10-MAR-05 | SA MAN     | 12000  | 0.3            | 100        | 80            |
| 27 | 150         | Peter       | Tucker      | PTUCKER  | 011.44.1344.129268 | 30-JAN-05 | SA REP     | 10000  | 0.3            | 145        | 80            |
| 28 | 151         | David       | Bernstein   | DBERNSTE | 011.44.1344.345268 | 24-MAR-05 | SA REP     | 9500   | 0.25           | 145        | 80            |
| 29 | 152         | Peter       | Hall        | PHALL    | 011.44.1344.478968 | 20-AUG-05 | SA REP     | 9000   | 0.25           | 145        | 80            |
| 30 | 153         | Christopher | Olsen       | COLSEN   | 011.44.1344.498718 | 30-MAR-06 | SA REP     | 8000   | 0.2            | 145        | 80            |
| 31 | 154         | Nanette     | Cambrault   | NCAMBRAU | 011.44.1344.987668 | 09-DEC-06 | SA REP     | 7500   | 0.2            | 145        | 80            |

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### Task 12:

Worksheet: Query Builder

select \* from employees where manager\_id is null;

Script Output x Query Result x

All Rows Fetched: 1 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 | 100         | Steven     | King      | SKING | 515.123.4567 | 17-JUN-03 | AD PRES | 24000  | (null)         | (null)     | 90            |

## Task 13:

Worksheet Query Builder

```
select * from employees where salary < all (select salary from employees where salary > 8000);
```

Script Output x Query Result x

Fetched 50 rows in 0.005 seconds

|    | EMPLOYEE_ID | FIRST_NAME  | LAST_NAME | EMAIL    | PHONE_NUMBER       | HIRE_DATE | JOB_ID     | SALARY | COMMISSION_PCT | MANAGER_ID | DEPARTMENT_ID |
|----|-------------|-------------|-----------|----------|--------------------|-----------|------------|--------|----------------|------------|---------------|
| 1  | 120         | Matthew     | Weiss     | MWEISS   | 650.123.1234       | 18-JUL-04 | ST MAN     | 8000   | (null)         | 100        | 50            |
| 2  | 159         | Lindsev     | Smith     | LSMITH   | 011.44.1345.729268 | 10-MAR-05 | SA REP     | 8000   | 0.3            | 146        | 80            |
| 3  | 153         | Christopher | Olsen     | COLSEN   | 011.44.1344.498718 | 30-MAR-06 | SA REP     | 8000   | 0.2            | 145        | 80            |
| 4  | 122         | Pavam       | Kaufling  | PKAUFLIN | 650.123.3234       | 01-MAY-03 | ST MAN     | 7900   | (null)         | 100        | 50            |
| 5  | 112         | Jose Manuel | Uрман     | JMURMAN  | 515.124.4469       | 07-MAR-06 | FI ACCOUNT | 7800   | (null)         | 108        | 100           |
| 6  | 111         | Ismael      | Sciarra   | ISCIARRA | 515.124.4369       | 30-SEP-05 | FI ACCOUNT | 7700   | (null)         | 108        | 100           |
| 7  | 160         | Louise      | Doran     | LDORAN   | 011.44.1345.629268 | 15-DEC-05 | SA REP     | 7500   | 0.3            | 146        | 80            |
| 8  | 154         | Nanette     | Cambrault | NCAMBRAU | 011.44.1344.987668 | 09-DEC-06 | SA REP     | 7500   | 0.2            | 145        | 80            |
| 9  | 171         | William     | Smith     | WSMITH   | 011.44.1343.629268 | 23-FEB-07 | SA REP     | 7400   | 0.15           | 148        | 80            |
| 10 | 172         | Elizabeth   | Bates     | EBATES   | 011.44.1343.529268 | 24-MAR-07 | SA REP     | 7300   | 0.15           | 148        | 80            |
| 11 | 164         | Mattea      | Navrins   | MMARVINS | 011.44.1346.329268 | 24-JAN-08 | SA REP     | 7200   | 0.1            | 147        | 80            |
| 12 | 155         | Oliver      | Tuvault   | OTUVAULT | 011.44.1344.486508 | 23-NOV-07 | SA REP     | 7000   | 0.15           | 145        | 80            |
| 13 | 178         | Kimberely   | Grant     | KGRANT   | 011.44.1644.429263 | 24-MAY-07 | SA REP     | 7000   | 0.15           | 149 (null) |               |
| 14 | 161         | Sarath      | Sewall    | SSEWALL  | 011.44.1345.529268 | 03-NOV-06 | SA REP     | 7000   | 0.25           | 146        | 80            |
| 15 | 113         | Luis        | Popp      | LPOPP    | 515.124.4567       | 07-DEC-07 | FI ACCOUNT | 6900   | (null)         | 108        | 100           |
| 16 | 165         | David       | Lee       | DLEE     | 011.44.1346.529268 | 23-FEB-08 | SA REP     | 6800   | 0.1            | 147        | 80            |
| 17 | 203         | Susan       | Mavris    | SMAVRIS  | 515.123.7777       | 07-JUN-02 | HR REP     | 6500   | (null)         | 101        | 40            |
| 18 | 123         | Shanta      | Vollman   | SVOLLMAN | 650.123.4234       | 10-OCT-05 | ST MAN     | 6500   | (null)         | 100        | 50            |
| 19 | 166         | Sundar      | Ande      | SANDE    | 011.44.1346.629268 | 24-MAR-08 | SA REP     | 6400   | 0.1            | 147        | 80            |
| 20 | 179         | Charles     | Johnson   | CJOHNSON | 011.44.1644.429262 | 04-JAN-08 | SA REP     | 6200   | 0.1            | 149        | 80            |
| 21 | 167         | Amit        | Banda     | ABANDA   | 011.44.1346.729268 | 21-APR-08 | SA REP     | 6200   | 0.1            | 147        | 80            |
| 22 | 173         | Sundita     | Kumar     | SKUMAR   | 011.44.1343.329268 | 21-APR-08 | SA REP     | 6100   | 0.1            | 148        | 80            |
| 23 | 202         | Pat         | Fav       | PFAY     | 603.123.6666       | 17-AUG-05 | MK REP     | 6000   | (null)         | 201        | 20            |
| 24 | 104         | Bruce       | Ernst     | BERNST   | 590.423.4568       | 21-MAY-07 | IT PROG    | 6000   | (null)         | 103        | 60            |
| 25 | 124         | Kevin       | Mourgos   | KMOURGOS | 650.123.5234       | 16-NOV-07 | ST MAN     | 5800   | (null)         | 100        | 50            |
| 26 | 106         | Valli       | Pataballa | VPATABAL | 590.423.4560       | 05-FEB-06 | IT PROG    | 4800   | (null)         | 103        | 60            |
| 27 | 105         | David       | Austin    | DAUSTIN  | 590.423.4569       | 25-JUN-05 | IT PROG    | 4800   | (null)         | 103        | 60            |
| 28 | 200         | Jennifer    | Whalen    | JWHALEN  | 515.123.4444       | 17-SEP-03 | AD ASST    | 4400   | (null)         | 101        | 10            |
| 29 | 184         | Nandita     | Sarchand  | NSARCHAN | 650.509.1876       | 27-JAN-04 | SH CLERK   | 4200   | (null)         | 121        | 50            |
| 30 | 107         | Diana       | Lorentz   | DLORENTZ | 590.423.5567       | 07-FEB-07 | IT PROG    | 4200   | (null)         | 103        | 60            |
| 31 | 185         | Alexis      | Bull      | ABULL    | 650.509.2876       | 20-FEB-05 | SH CLERK   | 4100   | (null)         | 121        | 50            |

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## Task 14:

Worksheet Query Builder

```
select * from employees where salary > any (select salary from employees where department_id = 90);
```

Script Output x Query Result x

All Rows Fetched: 1 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            |

## Task 15:

Worksheet Query Builder

```
select department_id from employees group by department_id having count(*) >= 1;
```

Script Output x Query Result x

All Rows Fetched: 12 in 0.003 seconds

|    | DEPARTMENT_ID |
|----|---------------|
| 1  | 100           |
| 2  | 30            |
| 3  | (null)        |
| 4  | 90            |
| 5  | 20            |
| 6  | 70            |
| 7  | 110           |
| 8  | 50            |
| 9  | 80            |
| 10 | 40            |
| 11 | 60            |
| 12 | 10            |

## Task 16:

Worksheet | Query Builder

```
select department_id, department_name from departments
where department_id not in (select department_id from employees where department_id is not null);
```

Script Output | Query Result | All Rows Fetched: 16 in 0.003 seconds

| DEPARTMENT_ID | DEPARTMENT_NAME      |
|---------------|----------------------|
| 120           | Treasury             |
| 130           | Corporate Tax        |
| 140           | Control And Credit   |
| 150           | Shareholder Services |
| 160           | Benefits             |
| 170           | Manufacturing        |
| 180           | Construction         |
| 190           | Contracting          |
| 200           | Operations           |
| 210           | IT Support           |
| 220           | NOC                  |
| 230           | IT Helpdesk          |
| 240           | Government Sales     |
| 250           | Retail Sales         |
| 260           | Recruiting           |
| 270           | Payroll              |

## Task 17:

Worksheet | Query Builder

```
select * from employees where salary not between 5000 and 15000;
```

Script Output | Query Result | 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 |
|-------------|------------|-------------|-----------|--------------|-----------|----------|--------|----------------|------------|---------------|
| 100         | Steven     | King        | SKING     | 515.123.4567 | 17-JUN-03 | AD PRES  | 24000  | (null)         | (null)     | 90            |
| 101         | Neena      | Kochhar     | NKOCHHAR  | 515.123.4568 | 21-SEP-05 | AD VP    | 17000  | (null)         | 100        | 90            |
| 102         | Lex        | De Haan     | LDEHAAN   | 515.123.4569 | 13-JAN-01 | AD VP    | 17000  | (null)         | 100        | 90            |
| 105         | David      | Austin      | DAUSTIN   | 590.423.4569 | 25-JUN-05 | IT PROG  | 4800   | (null)         | 103        | 60            |
| 106         | Valli      | Pataballa   | VPATABAL  | 590.423.4560 | 05-FEB-06 | IT PROG  | 4800   | (null)         | 103        | 60            |
| 107         | Diana      | Lorentz     | DLORENTZ  | 590.423.5567 | 07-FEB-07 | IT PROG  | 4200   | (null)         | 103        | 60            |
| 115         | Alexander  | Khoo        | AKHOO     | 515.127.4562 | 18-MAY-03 | PU CLERK | 3100   | (null)         | 114        | 30            |
| 116         | Shelli     | Baida       | SBAIDA    | 515.127.4563 | 24-DEC-05 | PU CLERK | 2900   | (null)         | 114        | 30            |
| 117         | Sigal      | Tobias      | STOBIAS   | 515.127.4564 | 24-JUL-05 | PU CLERK | 2800   | (null)         | 114        | 30            |
| 118         | Guy        | Himuro      | GHIMURO   | 515.127.4565 | 15-NOV-06 | PU CLERK | 2600   | (null)         | 114        | 30            |
| 119         | Karen      | Colmenares  | KCOLMENAS | 515.127.4566 | 10-AUG-07 | PU CLERK | 2500   | (null)         | 114        | 30            |
| 125         | Julia      | Nayer       | JNAYER    | 650.124.1214 | 16-JUL-05 | ST CLERK | 3200   | (null)         | 120        | 50            |
| 126         | Irene      | Mikkilineni | IMIKKILI  | 650.124.1224 | 28-SEP-06 | ST CLERK | 2700   | (null)         | 120        | 50            |
| 127         | James      | Landry      | JLANDRY   | 650.124.1334 | 14-JAN-07 | ST CLERK | 2400   | (null)         | 120        | 50            |
| 128         | Steven     | Markle      | SMARKLE   | 650.124.1434 | 08-MAR-08 | ST CLERK | 2200   | (null)         | 120        | 50            |
| 129         | Laura      | Bissot      | LBISSOT   | 650.124.5234 | 20-AUG-05 | ST CLERK | 3300   | (null)         | 121        | 50            |
| 130         | Mozhe      | Atkinson    | MATKINSO  | 650.124.6234 | 30-OCT-05 | ST CLERK | 2800   | (null)         | 121        | 50            |
| 131         | James      | Marlow      | JAMRLOW   | 650.124.7234 | 16-FEB-05 | ST CLERK | 2500   | (null)         | 121        | 50            |
| 132         | TJ         | Olson       | TJOLSON   | 650.124.8234 | 10-APR-07 | ST CLERK | 2100   | (null)         | 121        | 50            |
| 133         | Jason      | Mallin      | JMALLIN   | 650.127.1934 | 14-JUN-04 | ST CLERK | 3300   | (null)         | 122        | 50            |
| 134         | Michael    | Rogers      | MROGERS   | 650.127.1834 | 26-AUG-06 | ST CLERK | 2900   | (null)         | 122        | 50            |
| 135         | Ki         | Gee         | KGEE      | 650.127.1734 | 12-DEC-07 | ST CLERK | 2400   | (null)         | 122        | 50            |
| 136         | Hazel      | Philtanker  | HPHILTAN  | 650.127.1634 | 06-FEB-08 | ST CLERK | 2200   | (null)         | 122        | 50            |
| 137         | Renske     | Ladwig      | RLADWIG   | 650.121.1234 | 14-JUL-03 | ST CLERK | 3600   | (null)         | 123        | 50            |
| 138         | Stephen    | Stiles      | SSTILES   | 650.121.2034 | 26-OCT-05 | ST CLERK | 3200   | (null)         | 123        | 50            |
| 139         | John       | Seo         | JSEO      | 650.121.2019 | 12-FEB-06 | ST CLERK | 2700   | (null)         | 123        | 50            |
| 140         | Joshua     | Patel       | JPADEL    | 650.121.1834 | 06-APR-06 | ST CLERK | 2500   | (null)         | 123        | 50            |
| 141         | Trenna     | Rais        | TRAJS     | 650.121.8009 | 17-OCT-03 | ST CLERK | 3500   | (null)         | 124        | 50            |
| 142         | Curtis     | Davies      | CDAVIES   | 650.121.2994 | 29-JAN-05 | ST CLERK | 3100   | (null)         | 124        | 50            |
| 143         | Randall    | Matos       | RMATOS    | 650.121.2874 | 15-MAR-06 | ST CLERK | 2600   | (null)         | 124        | 50            |

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## Task 18:

Worksheet | Query Builder

```
select * from employees where department_id in (10,20,30) and department_id <> 40;
```

Script Output | Query Result | All Rows Fetched: 9 in 0.003 seconds

|   | 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 | 202         | Pat        | Fav        | PFAY     | 603.123.6666 | 17-AUG-05 | MK REP   | 6000   | (null)         | 201        | 20            |
| 4 | 114         | Den        | Raphaely   | DRAPHEAL | 515.127.4561 | 07-DEC-02 | PU MAN   | 11000  | (null)         | 100        | 30            |
| 5 | 115         | Alexander  | Khoo       | AKHOO    | 515.127.4562 | 18-MAY-03 | PU CLERK | 3100   | (null)         | 114        | 30            |
| 6 | 116         | Shelli     | Baida      | SBAIDA   | 515.127.4563 | 24-DEC-05 | PU CLERK | 2900   | (null)         | 114        | 30            |
| 7 | 117         | Sigal      | Tobias     | STOBIAS  | 515.127.4564 | 24-JUL-05 | PU CLERK | 2800   | (null)         | 114        | 30            |
| 8 | 118         | Guv        | Himuro     | GHIMURO  | 515.127.4565 | 15-NOV-06 | PU CLERK | 2600   | (null)         | 114        | 30            |
| 9 | 119         | Karen      | Colmenares | KCOLMENA | 515.127.4566 | 10-AUG-07 | PU CLERK | 2500   | (null)         | 114        | 30            |

## Task 19:

Worksheet | Query Builder

```
select * from employees where salary < (select min(salary) from employees where department_id = 50);
```

Script Output | Query Result | All Rows Fetched: 0 in 0.001 seconds

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

## Task 20:

Worksheet | Query Builder

```
select * from employees where salary > (select max(salary) from employees where department_id = 90);
```

Script Output | Query Result | All Rows Fetched: 0 in 0.003 seconds

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