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Today is:         Tue 16 Jul 2019 11:17:22 PM WITA
Kernel Information:     Linux 4.19.0-kali5-amd64 x86_64
root@IkyDhana:~ # cd Desktop/
root@IkyDhana:~/Desktop # sqlite3 Tugas5
SQLite version 3.27.2 2019-02-25 16:06:06
Enter ".help" for usage hints.
sqlite> .header on
sqlite> .mode column
sqlite> .timer on
sqlite> CREATE TABLE x ( a,b );
Run Time: real 0.253 user 0.000637 sys 0.000892
sqlite> INSERT INTO x VALUES ( 1, 'Alice');
Run Time: real 0.972 user 0.001450 sys 0.000000
sqlite> INSERT INTO x VALUES ( 2, 'Bob');
Run Time: real 0.233 user 0.001205 sys 0.000000
sqlite> INSERT INTO x VALUES ( 3, 'Charlie');
Run Time: real 0.235 user 0.000000 sys 0.001165
sqlite> CREATE TABLE y ( c,d );
Run Time: real 0.257 user 0.000716 sys 0.000716
sqlite> INSERT INTO y VALUES ( 1, 3.14159);
Run Time: real 0.230 user 0.000000 sys 0.001206
sqlite> INSERT INTO y VALUES ( 1, 2.71828);
Run Time: real 0.224 user 0.000586 sys 0.000527
sqlite> INSERT INTO y VALUES ( 2, 1.61803);
Run Time: real 0.229 user 0.000000 sys 0.001045
sqlite> CREATE TABLE z ( a,e );
Run Time: real 0.251 user 0.000000 sys 0.001283
sqlite> INSERT INTO z VALUES ( 1, 100 );
Run Time: real 0.437 user 0.001570 sys 0.000000
sqlite> INSERT INTO z VALUES ( 1, 150 );
Run Time: real 0.224 user 0.001016 sys 0.000000
sqlite> INSERT INTO z VALUES ( 3, 300 );
Run Time: real 0.227 user 0.000985 sys 0.000000
sqlite> INSERT INTO z VALUES ( 9, 900 );
Run Time: real 0.222 user 0.001176 sys 0.000000
sqlite> SELECT * FROM x;
a           b
----------  ----------
1. Alice
2. Bob
3. Charlie
Run Time: real 0.000 user 0.000192 sys 0.000169
sqlite> SELECT d, d*d AS dSquared FROM y;
d           dSquared
----------  ------------
3.14159     9.8695877281
2.71828     7.3890461584
```

```
1.61803     2.6180210809
Run Time: real 0.001 user 0.000159 sys 0.000140
sqlite> SELECT * FROM x JOIN y;
a           b           c           d
----------  ----------  ----------  ----------
1. Alice       1           3.14159
1. Alice       1           2.71828
1. Alice       2           1.61803
2. Bob         1           3.14159
3. Bob         1           2.71828
4. Bob         2           1.61803
5. Charlie     1           3.14159
6. Charlie     1           2.71828
7. Charlie     2           1.61803
Run Time: real 0.000 user 0.000250 sys 0.000218
sqlite> SELECT * FROM x CROSS JOIN y;
a           b           c           d
----------  ----------  ----------  ----------
1. Alice       1           3.14159
1. Alice       1           2.71828
1. Alice       2           1.61803
2. Bob         1           3.14159
3. Bob         1           2.71828
4. Bob         2           1.61803
5. Charlie     1           3.14159
6. Charlie     1           2.71828
7. Charlie     2           1.61803
Run Time: real 0.001 user 0.000000 sys 0.000559
sqlite> SELECT * FROM x, y;
a           b           c           d
----------  ----------  ----------  ----------
1. Alice       1           3.14159
1. Alice       1           2.71828
1. Alice       2           1.61803
2. Bob         1           3.14159
3. Bob         1           2.71828
4. Bob         2           1.61803
5. Charlie     1           3.14159
6. Charlie     1           2.71828
7. Charlie     2           1.61803
Run Time: real 0.001 user 0.000189 sys 0.000178
sqlite> SELECT * FROM x JOIN y ON a = c;
a           b           c           d
----------  ----------  ----------  ----------
1. Alice       1           2.71828
1. Alice       1           3.14159
2. Bob         2           1.61803
Run Time: real 0.001 user 0.000229 sys 0.000296
sqlite> SELECT * FROM x JOIN z USING (a);
a           b           e
----------  ----------  ----------
1. Alice       100
1. Alice       150
3           Charlie     300
```

```
Run Time: real 0.001 user 0.000219 sys 0.000219
sqlite> SELECT * FROM x NATURAL JOIN z;
a           b           e
----------  ----------  ----------
1. Alice       100
1. Alice       150
3           Charlie     300
Run Time: real 0.000 user 0.000284 sys 0.000253
sqlite> SELECT * FROM x LEFT OUTER JOIN z USING ( a );
a           b           e
----------  ----------  ----------
1. Alice       100
1. Alice       150
2. Bob
3. Charlie     300
Run Time: real 0.001 user 0.000217 sys 0.000205
sqlite> SELECT * FROM x JOIN y ON x.a = y.c LEFT OUTER JOIN z ON y.c =
z.a;
a           b           c           d           a           e
----------  ----------  ----------  ----------  ----------  ----------
1. Alice       1           2.71828     1           100
1. Alice       1           2.71828     1           150
1. Alice       1           3.14159     1           100
1. Alice       1           3.14159     1           150
2. Bob         2           1.61803
Run Time: real 0.000 user 0.000384 sys 0.000384
sqlite> SELECT * FROM y WHERE d BETWEEN 1.0 AND 3.0;
c           d
----------  ----------
1. 2.71828
2. 1.61803
Run Time: real 0.001 user 0.000174 sys 0.000166
sqlite> SELECT c, d, c+d AS sum FROM y WHERE sum < 4.0;
c           d           sum
----------  ----------  ----------
1. 2.71828     3.71828
2. 1.61803     3.61803
Run Time: real 0.000 user 0.000160 sys 0.000145
sqlite> SELECT a, count(a) AS count FROM z GROUP BY a;
a           count
----------  ----------
1. 2
3           1
9           1
Run Time: real 0.000 user 0.000340 sys 0.000000
sqlite> SELECT a, sum(e), count(e),
   ...> sum(e)/count(e) AS expr, avg(e) AS agg
   ...> FROM z GROUP BY a;
a           sum(e)      count(e)    expr        agg
----------  ----------  ----------  ----------  ----------
1. 250         2           125         125.0
3           300         1           300         300.0
9           900         1           900         900.0
Run Time: real 0.000 user 0.000000 sys 0.000375
```

```
sqlite> SELECT * FROM y ORDER BY d;
c           d
----------  ----------
2. 1.61803
1. 2.71828
1. 3.14159
Run Time: real 0.000 user 0.000000 sys 0.000179
sqlite>
```