-------------------------TinySQL----------------------------

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Choose one of the following actions:

1. Input Command Manually

2. Execute SQL script file

3. Quit

2

-------------------------File Mode----------------------------

Input quit to exit CLI mode.

Please input FILE NAME:

test1.txt

Executing Query: CREATE TABLE course (sid INT, homework INT, project INT, exam INT, grade STR20)

Create Complete!

Simulated processing time = 0.00 ms

Simulated Disk I/Os = 0


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (1, 99, 100, 100, "A")

Insert Complete!

Simulated processing time = 74.63 ms

Simulated Disk I/Os = 1


Executing Query: SELECT * FROM course

Relation Blocks Number: 1

Memory Blocks Number: 10

Here is an output

1 99 100 100 A

Select Complete!

Simulated processing time = 74.63 ms

Simulated Disk I/Os = 1


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (2, NULL, 100, 100, "E")

Insert Complete!

Simulated processing time = 149.26 ms

Simulated Disk I/Os = 2

Executing Query: SELECT * FROM course
Relation Blocks Number: 2
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
2 -2147483648 100 100 E
Select Complete!
Simulated processing time = 138.63 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, grade, exam, project, homework) VALUES (3, "E", 100, 100, 100)
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: SELECT * FROM course
Relation Blocks Number: 3
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
2 -2147483648 100 100 E
3 100 100 100 E
Select Complete!
Simulated processing time = 202.63 ms
Simulated Disk I/Os = 3


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) SELECT * FROM course
INSERT INTO course (sid, homework, project, exam, grade)
course
sid, homework, project, exam, grade
Simulated processing time = 671.67 ms
Simulated Disk I/Os = 9


Executing Query: SELECT * FROM course
Relation Blocks Number: 6
Memory Blocks Number: 10
Here is an output

1 99 100 100 A
2 -2147483648 100 100 E
3 100 100 100 E
1 99 100 100 A
2 -2147483648 100 100 E
3 100 100 100 E
Select Complete!
Simulated processing time = 394.63 ms
Simulated Disk I/Os = 6


Executing Query: DELETE FROM course WHERE grade = "E"
Delete Complete!
Simulated processing time = 1578.52 ms
Simulated Disk I/Os = 24


Executing Query: SELECT * FROM course
Relation Blocks Number: 2
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
1 99 100 100 A
Select Complete!
Simulated processing time = 138.63 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (4, 99, 100, 100, "B")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: SELECT * FROM course
Relation Blocks Number: 3
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
1 99 100 100 A
4 99 100 100 B
Select Complete!

Simulated processing time = 202.63 ms
Simulated Disk I/Os = 3


Executing Query: DELETE FROM course
Delete Complete!
Simulated processing time = 607.89 ms
Simulated Disk I/Os = 9


Executing Query: SELECT * FROM course
Relation Blocks Number: 0
Memory Blocks Number: 10
Here is an output
Select Complete!
Simulated processing time = 0.00 ms
Simulated Disk I/Os = 0


Executing Query: DROP TABLE course
Simulated processing time = 0.00 ms
Simulated Disk I/Os = 0


Executing Query: CREATE TABLE course (sid INT, homework INT, project INT, exam INT, grade STR20)
Create Complete!
Simulated processing time = 0.00 ms
Simulated Disk I/Os = 0


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (1, 99, 100, 100, "A")
Insert Complete!
Simulated processing time = 74.63 ms
Simulated Disk I/Os = 1


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (3, 100, 100, 98, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (3, 100, 69, 64, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (15, 100, 50, 90, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (15, 100, 99, 100, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (17, 100, 100, 100, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (2, 100, 100, 99, "B")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (4, 100, 100, 97, "D")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (5, 100, 100, 66, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (6, 100, 100, 65, "B")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (7, 100, 50, 73, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (8, 50, 50, 62, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (9, 50, 50, 61, "D")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (10, 50, 70, 70, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (11, 50, 50, 59, "D")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (12, 0, 70, 58, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (13, 0, 50, 77, "C")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (14, 50, 50, 56, "D")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2

Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (16, 0, 0, 0, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course (sid, homework, project, exam, grade) VALUES (17, 100, 100, 100, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: SELECT * FROM course
Relation Blocks Number: 58
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
3 100 100 98 C
3 100 69 64 C
15 100 50 90 E
15 100 99 100 E
17 100 100 100 A
2 100 100 99 B
4 100 100 97 D
5 100 100 66 A
6 100 100 65 B
7 100 50 73 C
8 50 50 62 C
9 50 50 61 D
10 50 70 70 C
11 50 50 59 D
12 0 70 58 C
13 0 50 77 C
14 50 50 56 D
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E

16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
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16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
17 100 100 100 A
Select Complete!
Simulated processing time = 3775.78 ms
Simulated Disk I/Os = 58


Executing Query: SELECT sid, grade FROM course
Relation Blocks Number: 58
Memory Blocks Number: 10
Here is an output
1 A

3 C
3 C
15 E
15 E
17 A
2 B
4 D
5 A
6 B
7 C
8 C
9 D
10 C
11 D
12 C
13 C
14 D
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E

16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
17 A
Select Complete!
Simulated processing time = 3775.78 ms
Simulated Disk I/Os = 58


Executing Query: SELECT sid, course.grade FROM course
Relation Blocks Number: 58
Memory Blocks Number: 10
Here is an output
1 A
3 C
3 C
15 E
15 E
17 A
2 B
4 D
5 A
6 B
7 C
8 C
9 D
10 C
11 D
12 C
13 C
14 D
16 E
16 E

16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
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16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
16 E
17 A
Select Complete!
Simulated processing time = 3775.78 ms
Simulated Disk I/Os = 58

Executing Query: SELECT DISTINCT grade FROM course
Relation Blocks Number: 5
Memory Blocks Number: 10
Here is an output
A
B
C
D
E
Select Complete!
Simulated processing time = 12541.36 ms
Simulated Disk I/Os = 184


Executing Query: SELECT DISTINCT * FROM course
Relation Blocks Number: 1
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
3 100 100 98 C
3 100 69 64 C
15 100 50 90 E
15 100 99 100 E
17 100 100 100 A
2 100 100 99 B
4 100 100 97 D
5 100 100 66 A
6 100 100 65 B
7 100 50 73 C
8 50 50 62 C
9 50 50 61 D
10 50 70 70 C
11 50 50 59 D
12 0 70 58 C
13 0 50 77 C
14 50 50 56 D
16 0 0 0 E
17 100 100 100 A
Select Complete!
Simulated processing time = 12680.60 ms
Simulated Disk I/Os = 184

Executing Query: SELECT * FROM course ORDER BY exam
Relation Blocks Number: 58
Memory Blocks Number: 10
Here is an output
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
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16 0 0 0 E
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16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
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16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E

14 50 50 56 D
12 0 70 58 C
11 50 50 59 D
9 50 50 61 D
8 50 50 62 C
3 100 69 64 C
6 100 100 65 B
5 100 100 66 A
10 50 70 70 C
7 100 50 73 C
13 0 50 77 C
15 100 50 90 E
4 100 100 97 D
3 100 100 98 C
2 100 100 99 B
1 99 100 100 A
15 100 99 100 E
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 19431.66 ms
Simulated Disk I/Os = 290


Executing Query: SELECT * FROM course WHERE exam = 100
Relation Blocks Number: 4
Memory Blocks Number: 10
Here is an output
1 99 100 100 A
15 100 99 100 E
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 4309.04 ms
Simulated Disk I/Os = 66


Executing Query: SELECT * FROM course WHERE grade = "A"
Relation Blocks Number: 1
Memory Blocks Number: 10
Here is an output
5 100 100 66 A
1 99 100 100 A

17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 3925.04 ms
Simulated Disk I/Os = 60


Executing Query: SELECT * FROM course WHERE exam = 100 AND project = 100
Relation Blocks Number: 8
Memory Blocks Number: 10
Here is an output
6 100 100 65 B
5 100 100 66 A
4 100 100 97 D
3 100 100 98 C
2 100 100 99 B
1 99 100 100 A
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 4821.04 ms
Simulated Disk I/Os = 74


Executing Query: SELECT * FROM course WHERE exam = 100 OR exam = 99
Relation Blocks Number: 1
Memory Blocks Number: 10
Here is an output
2 100 100 99 B
Select Complete!
Simulated processing time = 3925.04 ms
Simulated Disk I/Os = 60


Executing Query: SELECT * FROM course WHERE NOT exam = 0
Relation Blocks Number: 39
Memory Blocks Number: 10
Here is an output
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E

16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
Select Complete!
Simulated processing time = 8852.82 ms
Simulated Disk I/Os = 136


Executing Query: SELECT * FROM course WHERE exam > 70
Relation Blocks Number: 10
Memory Blocks Number: 10
Here is an output

15 100 50 90 E
4 100 100 97 D
3 100 100 98 C
2 100 100 99 B
1 99 100 100 A
15 100 99 100 E
17 100 100 100 A
7 100 50 73 C
13 0 50 77 C
17 100 100 100 A
Select Complete!
Simulated processing time = 5077.04 ms
Simulated Disk I/Os = 78


Executing Query: SELECT * FROM course WHERE exam = 100 OR homework = 100 AND project = 100
Relation Blocks Number: 8
Memory Blocks Number: 10
Here is an output
6 100 100 65 B
5 100 100 66 A
4 100 100 97 D
3 100 100 98 C
2 100 100 99 B
1 99 100 100 A
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 4821.04 ms
Simulated Disk I/Os = 74


Executing Query: SELECT * FROM course WHERE [ exam = 100 OR homework = 100 ] AND project = 100
Relation Blocks Number: 8
Memory Blocks Number: 10
Here is an output
6 100 100 65 B
5 100 100 66 A
4 100 100 97 D
3 100 100 98 C
2 100 100 99 B

1 99 100 100 A
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 4821.04 ms
Simulated Disk I/Os = 74


Executing Query: SELECT * FROM course WHERE exam + homework = 200
Relation Blocks Number: 3
Memory Blocks Number: 10
Here is an output
15 100 99 100 E
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 4181.04 ms
Simulated Disk I/Os = 64


Executing Query: SELECT * FROM course WHERE ( exam * 30 + homework * 20 + project * 50 ) / 100 = 100
Relation Blocks Number: 2
Memory Blocks Number: 10
Here is an output
17 100 100 100 A
17 100 100 100 A
Select Complete!
Simulated processing time = 4053.04 ms
Simulated Disk I/Os = 62


Executing Query: SELECT * FROM course WHERE grade = "C" AND [ exam > 70 OR project > 70 ] AND NOT ( exam * 30 + homework * 20 + project * 50 ) / 100 < 60
Relation Blocks Number: 45
Memory Blocks Number: 10
Here is an output
16 0 0 0 E
16 0 0 0 E
14 50 50 56 D
12 0 70 58 C
11 50 50 59 D
9 50 50 61 D

8 50 50 62 C
13 0 50 77 C
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
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16 0 0 0 E
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16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
16 0 0 0 E
Select Complete!
Simulated processing time = 9642.08 ms
Simulated Disk I/Os = 148

Executing Query: CREATE TABLE course2 (sid INT, exam INT, grade STR20)
Create Complete!
Simulated processing time = 0.00 ms
Simulated Disk I/Os = 0


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (1, 100, "A")
Insert Complete!
Simulated processing time = 74.63 ms
Simulated Disk I/Os = 1


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (16, 25, "E")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (17, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: SELECT * FROM course, course2
Relation Blocks Number: 174
Memory Blocks Number: 10
Here is an output
3 100 69 64 C 1 100 A
3 100 69 64 C 16 25 E
3 100 69 64 C 17 0 A
6 100 100 65 B 1 100 A
6 100 100 65 B 16 25 E
6 100 100 65 B 17 0 A
5 100 100 66 A 1 100 A
5 100 100 66 A 16 25 E
5 100 100 66 A 17 0 A
15 100 50 90 E 1 100 A
15 100 50 90 E 16 25 E
15 100 50 90 E 17 0 A
4 100 100 97 D 1 100 A
4 100 100 97 D 16 25 E

4 100 100 97 D 17 0 A
3 100 100 98 C 1 100 A
3 100 100 98 C 16 25 E
3 100 100 98 C 17 0 A
2 100 100 99 B 1 100 A
2 100 100 99 B 16 25 E
2 100 100 99 B 17 0 A
1 99 100 100 A 1 100 A
1 99 100 100 A 16 25 E
1 99 100 100 A 17 0 A
15 100 99 100 E 1 100 A
15 100 99 100 E 16 25 E
15 100 99 100 E 17 0 A
17 100 100 100 A 1 100 A
17 100 100 100 A 16 25 E
17 100 100 100 A 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
14 50 50 56 D 1 100 A
14 50 50 56 D 16 25 E
14 50 50 56 D 17 0 A
12 0 70 58 C 1 100 A
12 0 70 58 C 16 25 E
12 0 70 58 C 17 0 A
11 50 50 59 D 1 100 A
11 50 50 59 D 16 25 E
11 50 50 59 D 17 0 A
9 50 50 61 D 1 100 A
9 50 50 61 D 16 25 E
9 50 50 61 D 17 0 A
8 50 50 62 C 1 100 A
8 50 50 62 C 16 25 E
8 50 50 62 C 17 0 A
10 50 70 70 C 1 100 A
10 50 70 70 C 16 25 E
10 50 70 70 C 17 0 A
7 100 50 73 C 1 100 A
7 100 50 73 C 16 25 E
7 100 50 73 C 17 0 A

```
13 0 50 77 C 1 100 A
13 0 50 77 C 16 25 E
13 0 50 77 C 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
```

16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E

16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
16 0 0 0 E 1 100 A
16 0 0 0 E 16 25 E
16 0 0 0 E 17 0 A
17 100 100 100 A 1 100 A
17 100 100 100 A 16 25 E
17 100 100 100 A 17 0 A
Select Complete!
Simulated processing time = 27121.85 ms
Simulated Disk I/Os = 408


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (2, 99, "B")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (3, 98, "C")

Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (4, 97, "D")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (5, 66, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (6, 65, "B")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!

Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms

Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: INSERT INTO course2 (sid, exam, grade) VALUES (18, 0, "A")
Insert Complete!
Simulated processing time = 149.26 ms
Simulated Disk I/Os = 2


Executing Query: SELECT course.sid, course.grade, course2.grade FROM course, course2
WHERE course.sid = course2.sid
Relation Blocks Number: 48
Memory Blocks Number: 10
Here is an output
1 A A
2 B B
3 C C
3 C C
4 D D

5 A A
6 B B
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
16 E E
17 A A
17 A A

Select Complete!
Simulated processing time = 26854.78 ms
Simulated Disk I/Os = 402


Executing Query: SELECT * FROM course, course2 WHERE course.sid = course2.sid ORDER BY course.exam
Relation Blocks Number: 48
Memory Blocks Number: 10
Here is an output
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E

16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
16 0 0 0 E 16 25 E
3 100 69 64 C 3 98 C
6 100 100 65 B 6 65 B
5 100 100 66 A 5 66 A
4 100 100 97 D 4 97 D
3 100 100 98 C 3 98 C
2 100 100 99 B 2 99 B
1 99 100 100 A 1 100 A
17 100 100 100 A 17 0 A
17 100 100 100 A 17 0 A
Select Complete!
Simulated processing time = 39812.47 ms
Simulated Disk I/Os = 594


Executing Query: SELECT * FROM course, course2 WHERE course.sid = course2.sid AND
course.exam = 100 AND course2.exam = 100
Relation Blocks Number: 1
Memory Blocks Number: 10
Here is an output
1 99 100 100 A 1 100 A
Select Complete!
Simulated processing time = 20753.74 ms
Simulated Disk I/Os = 308


Executing Query: SELECT * FROM course, course2 WHERE course.sid = course2.sid AND [
course.exam = 100 OR course2.exam = 100 ]
Relation Blocks Number: 1
Memory Blocks Number: 10
Here is an output
1 99 100 100 A 1 100 A
Select Complete!
Simulated processing time = 20753.74 ms
Simulated Disk I/Os = 308

Executing Query: SELECT * FROM course, course2 WHERE course.sid = course2.sid AND course.exam > course2.exam

Relation Blocks Number: 2

Memory Blocks Number: 10

Here is an output

17 100 100 100 A 17 0 A

17 100 100 100 A 17 0 A

Select Complete!

Simulated processing time = 20881.74 ms

Simulated Disk I/Os = 310


Executing Query: SELECT * FROM course, course2 WHERE course.sid = course2.sid AND course.exam > course2.exam AND course.homework = 100

Relation Blocks Number: 8

Memory Blocks Number: 10

Here is an output

17 100 100 100 A 17 0 A

17 100 100 100 A 17 0 A

Select Complete!

Simulated processing time = 21649.74 ms

Simulated Disk I/Os = 322


Executing Query: SELECT * FROM course, course2 WHERE course.sid = course2.sid AND [ course.exam > course2.exam OR course.homework = 100 ]

Relation Blocks Number: 8

Memory Blocks Number: 10

Here is an output

2 100 100 99 B 2 99 B

3 100 69 64 C 3 98 C

3 100 100 98 C 3 98 C

4 100 100 97 D 4 97 D

5 100 100 66 A 5 66 A

6 100 100 65 B 6 65 B

17 100 100 100 A 17 0 A

17 100 100 100 A 17 0 A

Select Complete!

Simulated processing time = 21649.74 ms

Simulated Disk I/Os = 322

Executing Query: SELECT DISTINCT course.grade, course2.grade FROM course, course2 WHERE course.sid = course2.sid AND [ course.exam > course2.exam OR course.grade = "A" AND course2.grade = "A" ] ORDER BY course.exam

Relation Blocks Number: 1

Memory Blocks Number: 10

Here is an output

A A

Select Complete!

Simulated processing time = 28271.65 ms

Simulated Disk I/Os = 416


Executing Query: DROP TABLE course

Simulated processing time = 0.00 ms

Simulated Disk I/Os = 0


Executing Query: DROP TABLE course2

Simulated processing time = 0.00 ms

Simulated Disk I/Os = 0