QUẢN TRỊ DỮ LIỆU - CT467

BÀI THỰC HÀNH 1 - GIỚI THIỆU MYSQL

&-&

Bài 1: Câu lệnh SQL không kết nối

1.

```
-- Câu 1
select *
from sinhvien
order by mssv asc;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

mssv	hoten	GT	ngaySinh	noiSinh	diaChi	maKhoa
B1234567	Nguyễn Thanh Hải	M	2000-12-02	Bạc Liêu	Phòng 01, KTX Khu B, ĐHCT	CNTT&TT
B1234568	Trần Thanh Mai	M	2001-01-20	Cần Thơ	232, Nguyễn Văn Khéo, quận Ninh Kiều, TPCT	CNTT&TT
B1234569	Trần Thu Thủy	F	2001-07-01	Cần Thơ	02, Đại lộ Hòa Bình, quận Ninh Kiều, TPCT	CNTT&TT
B1334569	Nguyễn Thị Trúc Mã	F	2002-05-25	Sóc Trăng	343, Đường 30/4, quận Ninh Kiều, TPCT	SP
B1345678	Trần Hồng Trúc	F	2002-03-02	Cần Thơ	123, Trần Hưng Đạo, quận Ninh Kiều, TPCT	CNTT&TT
B1345679	Bùi Hoàng Yến	F	2001-11-05	Vĩnh Long	Phòng 201, KTX Khu A, TPCT	CNTT&TT
B1345680	Trần Minh Tâm	M	2001-02-04	Cà Mau	07, Đại lộ Hòa Bình, quận Ninh Kiều, TPCT	KT
B1456789	Nguyễn Hồng Thắm	F	2003-05-09	An Giang	133, Nguyễn Văn Cừ, quận Ninh Kiều, TPCT	NNG
B1456790	Lê Khải Hoàng	M	2002-07-03	Kiên Giang	03, Trần Hoàng Na, quận Ninh Kiều, TPCT	TS
B1459230	Lê Văn Khang	M	2002-06-02	Đồng Tháp	312, Nguyễn Văn Linh, quận Ninh Kiều, TPCT	TN
NULL	NULL	NULL	NULL	NULL	NULL	NULL

sinhvien 2

Output

Action Output

#	Time	Action	Message
1	14:03:16	select * from sinhvien order by mssv asc LIMIT 0, 1000	10 row(s) returned

2.

```
-- Câu 2
select mssv, hoten, ngaysinh, makhoa
from sinhvien
where hoten NOT LIKE 'L%' and hoten NOT LIKE 'T%';
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

mssv	hoten	ngaysinh	makhoa
B1234567	Nguyễn Thanh Hải	2000-12-02	CNTT&TT
B1334569	Nguyễn Thị Trúc Mã	2002-05-25	SP
B1345679	Bùi Hoàng Yến	2001-11-05	CNTT&TT
B1456789	Nguyễn Hồng Thắm	2003-05-09	NNG
NULL	NULL	NULL	NULL

sinhvien 5

Output

Action Output

#	Time	Action	Message
1	14:03:16	select * from sinhvien order by mssv asc LIMIT 0, 1000	10 row(s) returned
2	14:09:34	select mssv, hoten, ngaysinh, makhoa from sinhvien where hoten NOT LIKE 'L%' OR 'T%' LIMIT 0, 1000	8 row(s) returned
3	14:10:00	select mssv, hoten, ngaysinh, makhoa from sinhvien where hoten NOT LIKE 'L%' and 'T%' LIMIT 0, 1000	0 row(s) returned
4	14:10:16	select mssv, hoten, ngaysinh, makhoa from sinhvien where hoten NOT LIKE 'L%' and hoten NOT LIKE 'T%' LIMI...	4 row(s) returned

3.

```
-- Câu 3
select mssv, hoten, YEAR(CURDATE()) - YEAR(ngaysinh) as tuoi
from sinhvien
where YEAR(CURDATE()) - YEAR(ngaysinh) between 20 and 22;

-- Câu 2
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten	tuoi
B1456789	Nguyễn Hồng Thắm	22

Result 7

Output

Action Output

#	Time	Action	Message
1	14:15:29	select mssv, hoten, YEAR(CURDATE()) - YEAR(ngaysinh) as tuoi from sinhvien where YEAR(CURDATE()) - YEA...	1 row(s) returned

4.

```
-- Câu 4
select mahp, tenhp
from hocphan
where sotinchi = 3 and sotietlt >= 45;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mahp	tenhp
TN001	Vi tích phân A1
TN021	Hóa học đại cương
TN101	Xác suất thống kê

hocphan 11

Output

Action Output

#	Time	Action	Message
1	14:15:29	select mssv, hoten, YEAR(CURDATE()) - YEAR(ngaysinh) as tuoi from sinhvien where YEAR(CURDATE()) - Y...	1 row(s) returned
2	14:17:28	select mahp, tenhp from hocphan where sotinchi = 3 and sotietth >= 45 LIMIT 0, 1000	0 row(s) returned
3	14:17:51	select mahp, tenhp from hocphan where sotinchi = 3 and sotietlt >= 45 LIMIT 0, 1000	3 row(s) returned
4	14:18:19	SELECT * FROM qldiem.hocphan LIMIT 0, 1000	9 row(s) returned
5	14:19:07	select mahp, tenhp from hocphan where sotinchi = 3 and sotietlt >= 45 LIMIT 0, 1000	3 row(s) returned
6	14:19:21	select mahp, tenhp from hocphan where sotinchi = 3 and sotietlt >= 45 LIMIT 0, 1000	3 row(s) returned
7	14:20:01	SELECT * FROM qldiem.hocphan LIMIT 0, 1000	9 row(s) returned

5.

```
-- Câu 5
select mssv, hoten, GT, makhoa
from sinhvien
where GT = 'M' and makhoa = 'CNTT&TT';
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

mssv	hoten	GT	makhoa
B1234567	Nguyễn Thanh Hải	M	CNTT&TT
B1234568	Trần Thanh Mai	M	CNTT&TT
NULL	NULL	NULL	NULL

sinhvien 12

Output

Action Output

#	Time	Action
1	14:23:18	select mssv, hoten, gioitinh, makhoa from sinhvien where gioitinh = 'M' and makhoa = 'CNTT&TT' LIMIT 0, 1000
2	14:23:27	select mssv, hoten, GT, makhoa from sinhvien where GT = 'M' and makhoa = 'CNTT&TT' LIMIT 0, 1000

Bài 2: Câu lệnh SQL có kết nối

6.

```
-- Câu 6
select hp.mahp, hp.tenhp
from ketqua kq right join hocphan hp on kq.mahp = hp.mahp
where kq.mahp is null;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mahp	tenhp
TN021	Hóa học đại cương

Output

Action Output

#	Time	Action	Message
1	15:55:47	select hp.mahp, hp.tenhp from ketqua kq left join hocphan hp on kq.mahp = hp.mahp where kq.mahp is null L...	0 row(s) returned
2	15:56:23	select hp.mahp, hp.tenhp from ketqua kq right join hocphan hp on kq.mahp = hp.mahp where kq.mahp is null ...	1 row(s) returned

7.

```
-- Câu 7
select sv.mssv, sv.hoten, kq.mahp, kq.diem
from sinhvien sv join ketqua kq where sv.mssv = kq.mssv
having kq.diem < 5;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten	mahp	diem
B1234567	Nguyễn Thanh Hải	CT101	4
B1234567	Nguyễn Thanh Hải	CT176	1
B1334569	Nguyễn Thị Trúc Mã	SP102	2
B1334569	Nguyễn Thị Trúc Mã	CT101	4
B1345679	Bùi Hoàng Yến	CT101	2

Result 17

Output

Action Output

#	Time	Action	Message
1	14:23:18	select mssv, hoten, gioitinh, makhoa from sinhvien where gioitinh = 'M' and makhoa = 'CNTT&TT' LIMIT 0, 1000	Error Code: 1054. Unknown column 'gioitinh' in 'field list'
2	14:23:27	select mssv, hoten, GT, makhoa from sinhvien where GT = 'M' and makhoa = 'CNTT&TT' LIMIT 0, 1000	2 row(s) returned
3	14:31:14	select kq.mahp, kq.tenhp from ketqua kq join hocphan hp on kq.mahp = hp.mahp where kq.diem = null LIMIT...	Error Code: 1054. Unknown column 'kq.tenhp' in 'field list'
4	14:31:38	select kq.mahp, hp.tenhp from ketqua kq join hocphan hp on kq.mahp = hp.mahp where kq.diem = null LIMIT...	0 row(s) returned
5	14:31:45	select kq.mahp, hp.tenhp from ketqua kq join hocphan hp on kq.mahp = hp.mahp LIMIT 0, 1000	20 row(s) returned
6	14:31:55	select * from ketqua kq join hocphan hp on kq.mahp = hp.mahp LIMIT 0, 1000	20 row(s) returned
7	14:32:32	select kq.mahp, hp.tenhp from ketqua kq join hocphan hp on kq.mahp = hp.mahp where kq.diem = null LIMIT...	0 row(s) returned
8	14:37:25	select sv.mssv, sv.hoten, kq.mahp, kq.diem from sinhvien sv join ketqua kq where sv.mssv = kq.mssv having ...	5 row(s) returned

8.

```
-- Câu 8
select sv.mssv, sv.hoten
from sinhvien sv join ketqua kq1 on sv.mssv = kq1.mssv and kq1.mahp = 'CT101'
                    join ketqua kq2 on sv.mssv = kq2.mssv and kq2.mahp = 'CT176';
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten
B1234568	Trần Thanh Mai
B1345679	Bùi Hoàng Yến
B1234567	Nguyễn Thanh Hải

Output

Action Output

#	Time	Action	Message
1	14:51:53	select sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'CT101' or ...	10 row(s) returned
2	14:52:02	select distinct sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'CT...	7 row(s) returned
3	14:52:15	select distinct sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'CT...	7 row(s) returned
4	14:52:15	select * from ketqua LIMIT 0, 1000	20 row(s) returned
5	14:52:42	select distinct sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'CT...	7 row(s) returned
6	14:52:50	select distinct sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'CT...	0 row(s) returned
7	14:53:00	select distinct sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'CT...	7 row(s) returned
8	14:54:00	select sv.mssv, sv.hoten from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp IN ('CT101', '...	7 row(s) returned
9	14:54:09	SELECT * FROM qldiem.ketqua LIMIT 0, 1000	20 row(s) returned
10	14:54:33	select * from ketqua LIMIT 0, 1000	20 row(s) returned
11	14:55:02	select * from ketqua group by mahp LIMIT 0, 1000	Error Code: 1055. Expression #1 of SELECT list is not in GROUP BY clause and contains nonaggregated col
12	14:55:14	select * from ketqua LIMIT 0, 1000	20 row(s) returned
13	14:56:45	select sv.mssv, sv.hoten from sinhvien sv join ketqua1 kq1 on sv.mssv = kq1.mssv and kq1.mahp = 'CT101' j...	Error Code: 1146. Table 'qldiem.ketqua1' doesn't exist
14	14:56:54	select sv.mssv, sv.hoten from sinhvien sv join ketqua kq1 on sv.mssv = kq1.mssv and kq1.mahp = 'CT101' jo...	Error Code: 1054. Unknown column 'k2.mahp' in 'on clause'
15	14:57:03	select sv.mssv, sv.hoten from sinhvien sv join ketqua kq1 on sv.mssv = kq1.mssv and kq1.mahp = 'CT101' jo...	3 row(s) returned

9.

```
-- Câu 9
select sv.mssv, sv.hoten, sv.makhoa, kq.diem
from sinhvien sv join ketqua kq on sv.mssv = kq.mssv
order by sv.makhoa asc, sv.hoten asc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten	makhoa	diem
B1345679	Bùi Hoàng Yến	CNTT&TT	5
B1345679	Bùi Hoàng Yến	CNTT&TT	2
B1234567	Nguyễn Thanh Hải	CNTT&TT	4
B1234567	Nguyễn Thanh Hải	CNTT&TT	1
B1345678	Trần Hồng Trúc	CNTT&TT	6
B1345678	Trần Hồng Trúc	CNTT&TT	6
B1234568	Trần Thanh Mai	CNTT&TT	8
B1234568	Trần Thanh Mai	CNTT&TT	9
B1234569	Trần Thu Thủy	CNTT&TT	9
B1234569	Trần Thu Thủy	CNTT&TT	8
B1345680	Trần Minh Tâm	KT	7
B1345680	Trần Minh Tâm	KT	7
B1456789	Nguyễn Hồng Thắm	NNG	10
B1456789	Nguyễn Hồng Thắm	NNG	6
B1456789	Nguyễn Hồng Thắm	NNG	7
B1334569	Nguyễn Thị Trúc Mã	SP	2
B1334569	Nguyễn Thị Trúc Mã	SP	4
B1459230	Lê Văn Khang	TN	7
B1459230	Lê Văn Khang	TN	8
B1456790	Lê Khải Hoàng	TS	6

Result 39

Output

Action Output

#	Time	Action	Message
1	15:02:59	select sv.mssv, sv.hoten, sv.makhoa, kq.diem from sinhvien sv join ketqua kq on sv.mssv = kq.mssv order by ...	20 row(s) returned

10.

```
-- Câu 10
select sv.mssv, sv.hoten, kq.mahp, kq.diem
from sinhvien sv join ketqua kq on sv.mssv = kq.mssv
where kq.mahp = 'CT101' and kq.diem between 5 and 7;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten	mahp	diem
B1345678	Trần Hồng Trúc	CT101	6
B1456789	Nguyễn Hồng Thắm	CT101	7

Result 41

Output

Action Output

#	Time	Action	Message
1	15:02:59	select sv.mssv, sv.hoten, sv.makhoa, kq.diem from sinhvien sv join ketqua kq on sv.mssv = kq.mssv order by ...	20 row(s) returned
2	15:06:56	select sv.mssv, sv.hoten, kq.mahp from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'C...	2 row(s) returned
3	15:07:07	select sv.mssv, sv.hoten, kq.mahp, kq.diem from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq....	2 row(s) returned

11.

```
-- Câu 11
select hp.mahp, sv.hoten
from sinhvien sv join hocphan hp on sv.makhoa = hp.makhoa
where hp.sotietth = 0;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mahp	hoten
SP102	Nguyễn Thị Trúc Mã
TN001	Lê Văn Khang
TN021	Lê Khải Hoàng
TN101	Trần Minh Tâm
TN172	Lê Văn Khang
XH023	Nguyễn Hồng Thắm

Result 42

Output

Action Output

#	Time	Action	Message
1	15:02:59	select sv.mssv, sv.hoten, sv.makhoa, kq.diem from sinhvien sv join ketqua kq on sv.mssv = kq.mssv order by ...	20 row(s) returned
2	15:06:56	select sv.mssv, sv.hoten, kq.mahp from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq.mahp = 'C...	2 row(s) returned
3	15:07:07	select sv.mssv, sv.hoten, kq.mahp, kq.diem from sinhvien sv join ketqua kq on sv.mssv = kq.mssv where kq....	2 row(s) returned
4	15:11:31	select hp.mahp, sv.hoten from sinhvien sv join hocphan hp on sv.makhoa = hp.makhoa where hp.sothietth = ...	Error Code: 1054. Unknown column 'hp.sothietth' in 'where clause'
5	15:11:40	select hp.mahp, sv.hoten from sinhvien sv join hocphan hp on sv.makhoa = hp.makhoa where hp.sotietth = 0 ...	6 row(s) returned

Bài 3: Câu lệnh SQL có phân nhóm

12.

```
-- Câu 12
select hp.mahp, hp.tenhp, count(kq.mssv) as soluongsv
from ketqua kq join hocphan hp on kq.mahp = hp.mahp
group by kq.mahp
order by soluongsv desc
limit 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

mahp	tenhp	soluongsv
CT101	Lập trình căn bản	7

Result 52

Output

Action Output

#	Time	Action	Message
1	15:31:28	select hp.mahp, hp.tenhp, count(kq.mssv) as soluongsv from ketqua kq join hocphan hp on kq.mahp = hp.ma...	1 row(s) returned

13.

```
-- Câu 13
select kq.mahp, hp.tenhp, count(kq.mssv) as soluongsv
from ketqua kq join hocphan hp on kq.mahp = hp.mahp
where kq.diem < 5
group by kq.mahp;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mahp	tenhp	soluongsv
CT101	Lập trình căn bản	3
SP102	Đại số tuyến tính	1
CT176	Lập trình Hướng đối tượng	1

Result 51

Output

Action Output

#	Time	Action	Message
1	15:22:03	select hp.mahp, hp.tenhp, count(kq.mssv) as soluongsv from ketqua kq join hocphan hp on kq.mahp = hp.ma...	8 row(s) returned
2	15:22:19	select hp.mahp, hp.tenhp, count(kq.mssv) as soluongsv from ketqua kq join hocphan hp on kq.mahp = hp.ma...	1 row(s) returned
3	15:26:16	select hp.mahp, hp.tenhp, count(kq.mssv) as soluongsv from ketqua kq join hocphan hp on kq.mahp = hp.ma...	1 row(s) returned
4	15:29:11	select kq.mahp, hp.tenhp from ketqua kq join hocphan hp on kq.mahp = hp.mahp where kq.diem < 5 group b...	3 row(s) returned
5	15:29:19	select kq.mahp, hp.tenhp from ketqua kq join hocphan hp on kq.mahp = hp.mahp LIMIT 0, 1000	20 row(s) returned
6	15:29:26	select kq.mahp, hp.tenhp, kq.diem from ketqua kq join hocphan hp on kq.mahp = hp.mahp LIMIT 0, 1000	20 row(s) returned
7	15:29:52	select kq.mahp, hp.tenhp, count(kq.mssv) as soluongsv from ketqua kq join hocphan hp on kq.mahp = hp.ma...	3 row(s) returned

14.

```
-- Câu 14
select k.makhoa, k.tenkhoa, count(sv.mssv) as soluongsv
from khoa k join sinhvien sv on k.makhoa = sv.makhoa
group by k.makhoa;


-- Câu 13
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

makhoa	tenkhoa	soluongsv
CNTT&TT	Công nghệ thông tin và Truyền thông	5
KT	Khoa Kinh tế	1
NNG	Khoa Ngoại ngữ	1
SP	Khoa Sư phạm	1
TN	Khoa Khoa học tự nhiên	1
TS	Khoa Thủy sản	1

Result 53

Output

Action Output

#	Time	Action	Message
1	15:31:28	select hp.mahp, hp.tenhp, count(kq.mssv) as soluongsv from ketqua kq join hocphan hp on kq.mahp = hp.ma...	1 row(s) returned
2	15:36:01	SELECT * FROM qldiem.khoa LIMIT 0, 1000	6 row(s) returned
3	15:36:37	select k.makhoa, k.tenkhoa, count(kq.mssv) as soluongsv from khoa k join sinhvien sv on k.makhoa = sv.ma...	Error Code: 1054. Unknown column 'kq.mssv' in 'field list'
4	15:36:48	select k.makhoa, k.tenkhoa, count(sv.mssv) as soluongsv from khoa k join sinhvien sv on k.makhoa = sv.ma...	6 row(s) returned
5	15:36:59	SELECT * FROM qldiem.sinhvien LIMIT 0, 1000	10 row(s) returned

15.

```
-- Câu 15
select sv.mssv, sv.hoten, avg(kq.diem) as diemtb
from sinhvien sv join ketqua kq on sv.mssv = kq.mssv
group by sv.mssv, sv.hoten
having diemtb = (
    select max(dtb)
    from (
        select avg(diem) as dtb
        from ketqua
        group by mssv
    ) AS maxdtb
);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten	diemTB
B1234568	Trần Thanh Mai	8.5
B1234569	Trần Thu Thủy	8.5

Result 55

Output

Action Output

#	Time	Action	Message
1	15:41:04	SELECT sv.mssv, sv.hoten, AVG(kq.diem) AS diemTB FROM sinhVien sv JOIN ketQua kq ON sv.mssv = kq....	2 row(s) returned
2	15:42:55	select sv.mssv, sv.hoten, avg(kq.diem) as diemTB from sinhVien sv join ketQua kq on sv.mssv = kq.mssv gro...	2 row(s) returned

16.

```
-- Câu 16
select k.makhoa, k.tenkhoa, count(case when sv.gt='M' then 1 end) as soluongnam, count(case when sv.gt='F' then 1 end) as soluongnu
from sinhvien sv join khoa k on sv.makhoa = k.makhoa
group by k.makhoa;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

makhoa	tenkhoa	soluongnam	soluongnu
CNTT&TT	Công nghệ thông tin và Truyền thông	2	3
KT	Khoa Kinh tế	1	0
NNG	Khoa Ngoại ngữ	0	1
SP	Khoa Sư phạm	0	1
TN	Khoa Khoa học tự nhiên	1	0
TS	Khoa Thủy sản	1	0

Result 57

Output

Action Output

#	Time	Action	Message
1	15:41:04	SELECT sv.mssv, sv.hoten, AVG(kq.diem) AS diemTB FROM sinhVien sv JOIN ketQua kq ON sv.mssv = kq....	2 row(s) returned
2	15:42:55	select sv.mssv, sv.hoten, avg(kq.diem) as diemTB from sinhVien sv join ketQua kq on sv.mssv = kq.mssv gro...	2 row(s) returned
3	15:49:38	select k.makhoa, count(case when sv.gt='M' then 1 end) as soluongnam, count(case when sv.gt='F' then 1 e...	6 row(s) returned
4	15:53:27	select k.makhoa, k.tenkhoa, count(case when sv.gt='M' then 1 end) as soluongnam, count(case when sv.gt='...	6 row(s) returned

17.

```
-- Câu 17
select sv.mssv, sv.hoten, sv.makhoa
from sinhvien sv join khoa k on sv.makhoa = k.makhoa
                left join ketqua kq on sv.mssv = kq.mssv and k.tenkhoa = 'Anh văn căn bản 1'
where kq.diem is null;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

mssv	hoten	makhoa
B1234567	Nguyễn Thanh Hải	CNTT&TT
B1234568	Trần Thanh Mai	CNTT&TT
B1234569	Trần Thu Thủy	CNTT&TT
B1345678	Trần Hồng Trúc	CNTT&TT
B1345679	Bùi Hoàng Yến	CNTT&TT
B1345680	Trần Minh Tâm	KT
B1456789	Nguyễn Hồng Thắm	NNG
B1334569	Nguyễn Thị Trúc Mã	SP
B1459230	Lê Văn Khang	TN
B1456790	Lê Khải Hoàng	TS

Result 61

Output

Action Output

#	Time	Action	Message
1	15:55:47	select hp.mahp, hp.tenhp from ketqua kq left join hocphan hp on kq.mahp = hp.mahp where kq.mahp is null L...	0 row(s) returned
2	15:56:23	select hp.mahp, hp.tenhp from ketqua kq right join hocphan hp on kq.mahp = hp.mahp where kq.mahp is null ...	1 row(s) returned
3	16:01:13	select sv.mssv, sv.hoten, sv.makhoa from sinhvien sv join khoa k on sv.makhoa = k.makhoa left join ketqua k...	Error Code: 1054. Unknown column 'kh.tenkhoa' in 'on clause'
4	16:01:24	select sv.mssv, sv.hoten, sv.makhoa from sinhvien sv join khoa k on sv.makhoa = k.makhoa left join ketqua k...	10 row(s) returned

18.

```
-- Câu 18
select kq.mahp, sv.hoten, hp.tenhp
from sinhvien sv join ketqua kq on sv.mssv = kq.mssv
                     join hocphan hp on kq.mahp = hp.mahp
where kq.mahp = 'XH023'
order by kq.diem desc
limit 1;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

mahp	hoten	tenhp
XH023	Lê Văn Khang	Anh văn căn bản 1

Result 64

Output

Action Output

#	Time	Action	Message
1	16:06:27	select kq.mahp, sv.hoten, hp.tenhp from sinhvien sv join ketqua kq on sv.mssv = kq.mssv join hocphan hp on...	1 row(s) returned
2	16:06:56	select kq.mahp, sv.hoten, hp.tenhp from sinhvien sv join ketqua kq on sv.mssv = kq.mssv join hocphan hp on...	1 row(s) returned

Bài 4: Kiểm tra tính toàn vẹn dữ liệu

19.

```
-- Câu 19
alter table ketqua add constraint kiemtra_diem check (diem between 0 and 10);
```

Output

Action Output

#	Time	Action	Message
1	16:10:16	alter table ketqua add constraint kiemtra_diem check (diem between 0 and 10)	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0

20.

```
-- Câu 20
alter table sinhvien add constraint kiemtra_mssv check (mssv regexp '^[A-Z0-9]{8}$');
```

Output

Action Output

#	Time	Action	Message
1	16:10:16	alter table ketqua add constraint kiemtra_diem check (diem between 0 and 10)	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0
2	16:11:40	alter table sinhvien add constraint kiemtra_mssv check (mssv regexp '^[A-Z0-9]{8}$')	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0

--HẾT--