

第七次实验

22375080 杨佳宇轩

Task 1


- 创建数据库，插入数据

	uid	name	money
	1	A	2000
▶	2	B	3000

- mysqldump备份

```
C:\Program Files\MySQL\MySQL Server 8.0\bin>mysqldump -uroot -h127.0.0.1 -pnjqyb18283827207 -P3306 db9 user
> C:\Users\12298\Desktop\2025-spring\数据库\22375080-杨佳宇轩-第七次实验\user.sql
mysqldump: [Warning] Using a password on the command line interface can be insecure.
```

- 备份结果

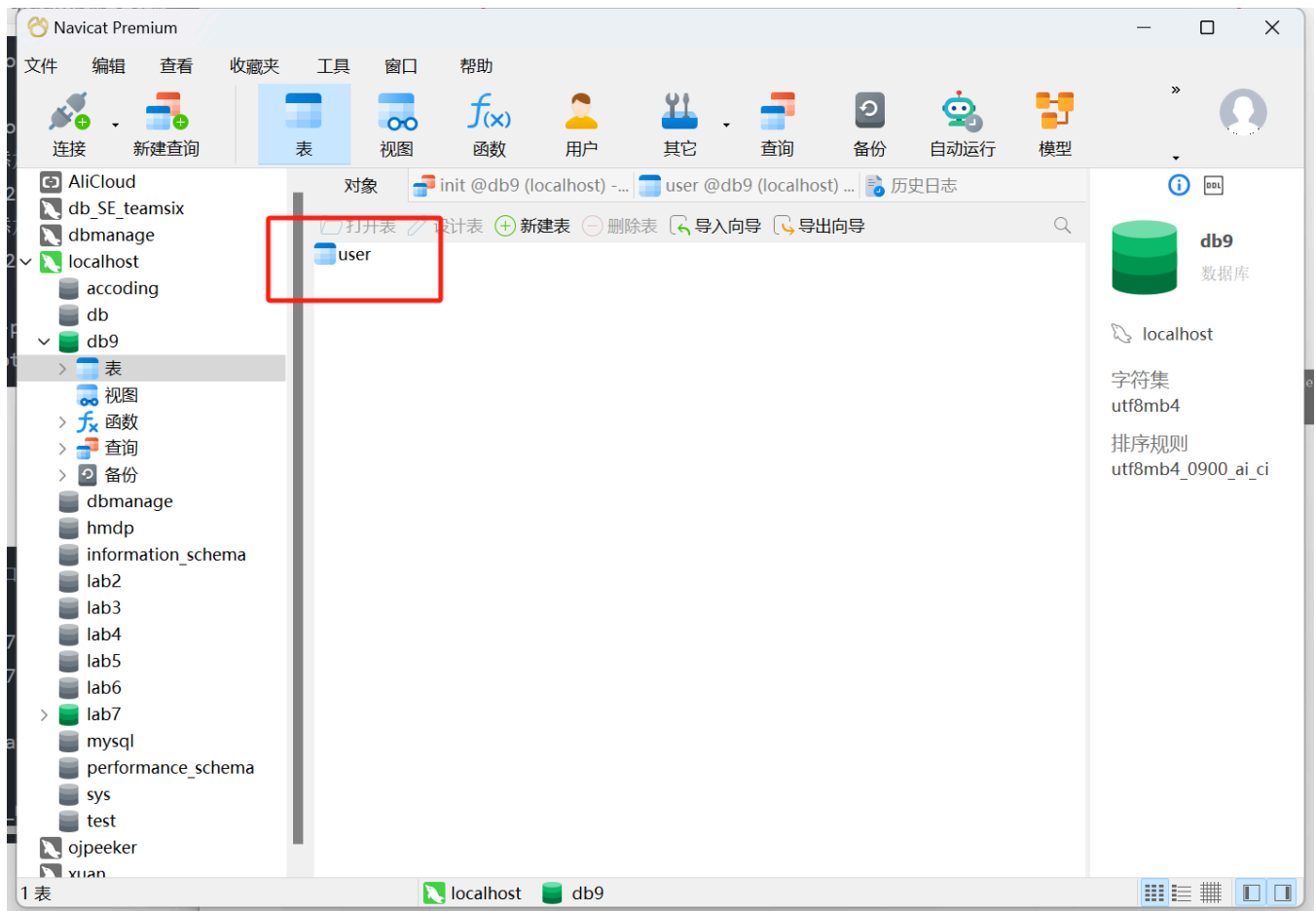
名称	修改日期	类型	大小
 user.sql	2025-05-16 18:59	SQL	2 KB
 第七次实验.md	2025-05-16 19:03	Markdown File	1 KB
 数据库第七次实验.pptx	2025-05-16 18:45	PPTX 演示文稿	1,914 KB

- 删除该表

```
[2025-05-16 19:04:13.703][localhost][000009][MYSQL]
DROP TABLE IF EXISTS `db9`.`user`;
Time: 0.005s
```

- 恢复数据库

```
C:\Program Files\MySQL\MySQL Server 8.0\bin>mysql -uroot -pnjqyb18283827207 -h127.0.0.1 -P3306 db9 < C:\Use
rs\12298\Desktop\2025-spring\数据库\22375080-杨佳宇轩-第七次实验\user.sql
mysql: [Warning] Using a password on the command line interface can be insecure.
```



Task 2

- 创建数据库

uid	name	money
1	A	2000
2	B	3000

- 删除 A 用户

```
mysql> delete from user2 where uid = 1;
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select * from user2
-> ;
+----+-----+-----+
| uid | name  | money |
+----+-----+-----+
| 2   | B     | 3000  |
+----+-----+-----+
1 row in set (0.00 sec)
```

- 删除 B 用户

```
mysql> delete from user2 where uid = 2; select * from user2;
Query OK, 1 row affected (0.01 sec)

Empty set (0.00 sec)
```

- 使用日志通过**位置**恢复 B 用户

- 查看日志

```

DENERATE-bin.000740 | 3373 | Query | 1 | 3538 | use `db9`; create table user2 (
  uid INT PRIMARY KEY,
  name varchar(255),
  money int
) /* xid=172 */
DENERATE-bin.000740 | 3538 | Anonymous_Gtid | 1 | 3617 | SET @@SESSION.GTID_NEXT= 'ANONYMOUS'
DENERATE-bin.000740 | 3617 | Query | 1 | 3691 | BEGIN
DENERATE-bin.000740 | 3691 | Table_map | 1 | 3750 | table_id: 108 (db9.user2)
DENERATE-bin.000740 | 3750 | Write_rows | 1 | 3797 | table_id: 108 flags: STMT_END_F
DENERATE-bin.000740 | 3797 | Xid | 1 | 3828 | COMMIT /* xid=196 */
DENERATE-bin.000740 | 3828 | Anonymous_Gtid | 1 | 3907 | SET @@SESSION.GTID_NEXT= 'ANONYMOUS'
DENERATE-bin.000740 | 3907 | Query | 1 | 3981 | BEGIN
DENERATE-bin.000740 | 3981 | Table_map | 1 | 4040 | table_id: 108 (db9.user2)
DENERATE-bin.000740 | 4040 | Write_rows | 1 | 4087 | table_id: 108 flags: STMT_END_F
DENERATE-bin.000740 | 4087 | Xid | 1 | 4118 | COMMIT /* xid=199 */
DENERATE-bin.000740 | 4118 | Anonymous_Gtid | 1 | 4197 | SET @@SESSION.GTID_NEXT= 'ANONYMOUS'
DENERATE-bin.000740 | 4197 | Query | 1 | 4271 | BEGIN
DENERATE-bin.000740 | 4271 | Table_map | 1 | 4330 | table_id: 108 (db9.user2)

```

- mysqlbinlog恢复 B

```
C:\Program Files\MySQL\MySQL Server 8.0\bin>mysqlbinlog --no-defaults --start-position=3828 --stop-position=4118 "C:\ProgramData\MySQL\MySQL Server 8.0\Data\DENERATE-bin.000740" | mysql -uroot -pnjqyb18283827207
mysql: [Warning] Using a password on the command line interface can be insecure.
```

- 恢复结果

```
mysql> select * from user2;
+----+-----+-----+
| uid | name | money |
+----+-----+-----+
| 2   | B    | 3000  |
+----+-----+-----+
1 row in set (0.00 sec)
```

- 使用日志通过**时间**恢复A用户

- 查看日志

```

管理员: 命令提示符
# original_commit_timestamp=1747394019488434 (2025-05-16 19:13:39.488434 中国标准时间)
# immediate_commit_timestamp=1747394019488434 (2025-05-16 19:13:39.488434 中国标准时间)
/*!80001 SET @@session.original_commit_timestamp=1747394019488434*//*!*/;
/*!80014 SET @@session.original_server_version=80031*//*!*/;
/*!80014 SET @@session.immediate_server_version=80031*//*!*/;
SET @@SESSION.GTID_NEXT= 'ANONYMOUS' *//*!*/;
# at 3617
#250516 19:13:39 server id 1 end_log_pos 3691 CRC32 0x7d145acd Query thread_id=9 exec_time=0 error
SET TIMESTAMP=1747394019*//*!*/;
BEGIN
/*!*/;
# at 3691
#250516 19:13:39 server id 1 end_log_pos 3750 CRC32 0x24cddadc Table_map: `db9`.`user2` mapped to number 108
# at 3750
#250516 19:13:39 server id 1 end_log_pos 3797 CRC32 0x440f53ea Write_rows: table id 108 flags: STMT_END_F

BINLOG '
4x0naBMBAAAAOwAAAKY0AAAAAGwAAAAAAEAA2Ri0QAFdXNlcjIAAwMPAwL8AwYBAQACA/z/ANza
zSQ=
4x0naB4BAAAAALwAAANU0AAAAAGwAAAAAAEAAgAD/wABAAAAQBBOAcAAOpTDQ=
' *//*!*/;
# at 3797
#250516 19:13:39 server id 1 end_log_pos 3828 CRC32 0xd5259211 Xid = 196
COMMIT *//*!*/;
# at 3828
#250516 19:13:43 server id 1 end_log_pos 3907 CRC32 0x153d47ef Anonymous_GTID last_committed=15
sequence_number=16 rbr_only=yes original_committed_timestamp=1747394023836166 immediate_commit_timestamp=1747394023836166
/*!50718 SET TRANSACTION ISOLATION LEVEL READ COMMITTED*//*!*/;
# original_commit_timestamp=1747394023836166 (2025-05-16 19:13:43.836166 中国标准时间)
# immediate_commit_timestamp=1747394023836166 (2025-05-16 19:13:43.836166 中国标准时间)

```

mysqlbinlog恢复 A

```

C:\Program Files\MySQL\MySQL Server 8.0\bin>mysqlbinlog --no-defaults --start-datetime="20250516191339" --stop-datetime="20250516191343" "C:\ProgramData\MySQL\MySQL Server 8.0\Data\DENER
ATE bin.000740" -mysql -uroot -p'njcyb18283827207
mysql: [Warning] Using a password on the command line interface can be insecure.

```

恢复结果

```

mysql> select * from user2;
+-----+-----+-----+
| uid | name | money |
+-----+-----+-----+
| 1 | A | 2000 |
| 2 | B | 3000 |
+-----+-----+-----+
2 rows in set (0.100 sec)

```