# 1. MySQL – MySQLD – MySQLAdmin

\_ MySQLD: is the server executable (one of them), đây là một server dùng để manage database

\_ MySQL: is the command line client.

\_ MySQLAdmin: is a maintainance or administrative utility.

# 2. Storage Engine

**Address:** http://ktmt.github.io/blog/2013/05/07/storageenginemysql/

Storage Engine thực chất là cách MySQL lưu trữ dữ liệu trên đĩa cứng.

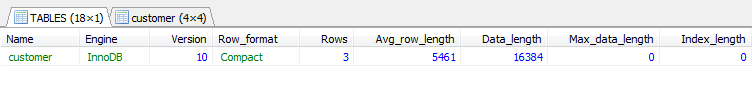
**InnoDB engine:** Là engine phức tạp nhất trong các engine của MySQL

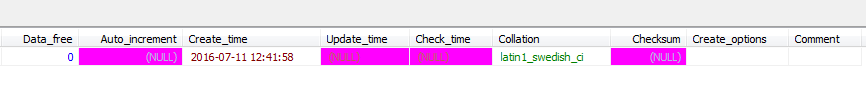
InnoDB engine có hỗ trợ transaction;

Use this query to show information table:

**show** **table** **status** **like** 'customer';

**result:**



****

Transaction define:

http://vietjack.com/sql/transaction\_trong\_sql.jsp

# 3. Select shortest and longest

Query the two cities in **STATION** with the shortest and longest CITY names, as well as their respective lengths (i.e.: number of characters in the name). If there is more than one smallest or largest city, choose the one that comes first when ordered alphabetically:

**select city, char\_length(city) city\_length from station order by city\_length, city limit 1;**

**select city, char\_length(city) city\_length from station order by city\_length desc, city limit 1;**

# 4. Select multiple conditions

Query the list of CITY names starting with vowels (i.e., a, e, i, o, or u) from **STATION**. Your result cannot contain duplicates.

**select distinct city from station where city like 'a%'**

**union**

**select distinct city from station where city like 'e%'**

**union**

**select distinct city from station where city like 'i%'**

**union**

**select distinct city from station where city like 'o%'**

**union**

**select distinct city from station where city like 'u%'**

# 5. Rlike

Query the list of CITY names from **STATION** which have vowels (i.e., a, e, i, o, and u) as both their first and last characters. Your result cannot contain duplicates.

**select distinct city from station where city rlike '^[aeiouAEIOU].\*[aeiouAEIOU]$';**

# 6. RIGHT Substring

**select name from students where marks>75 order by RIGHT(name, 3),id**