

# Basis Data 1

Tim Dosen:

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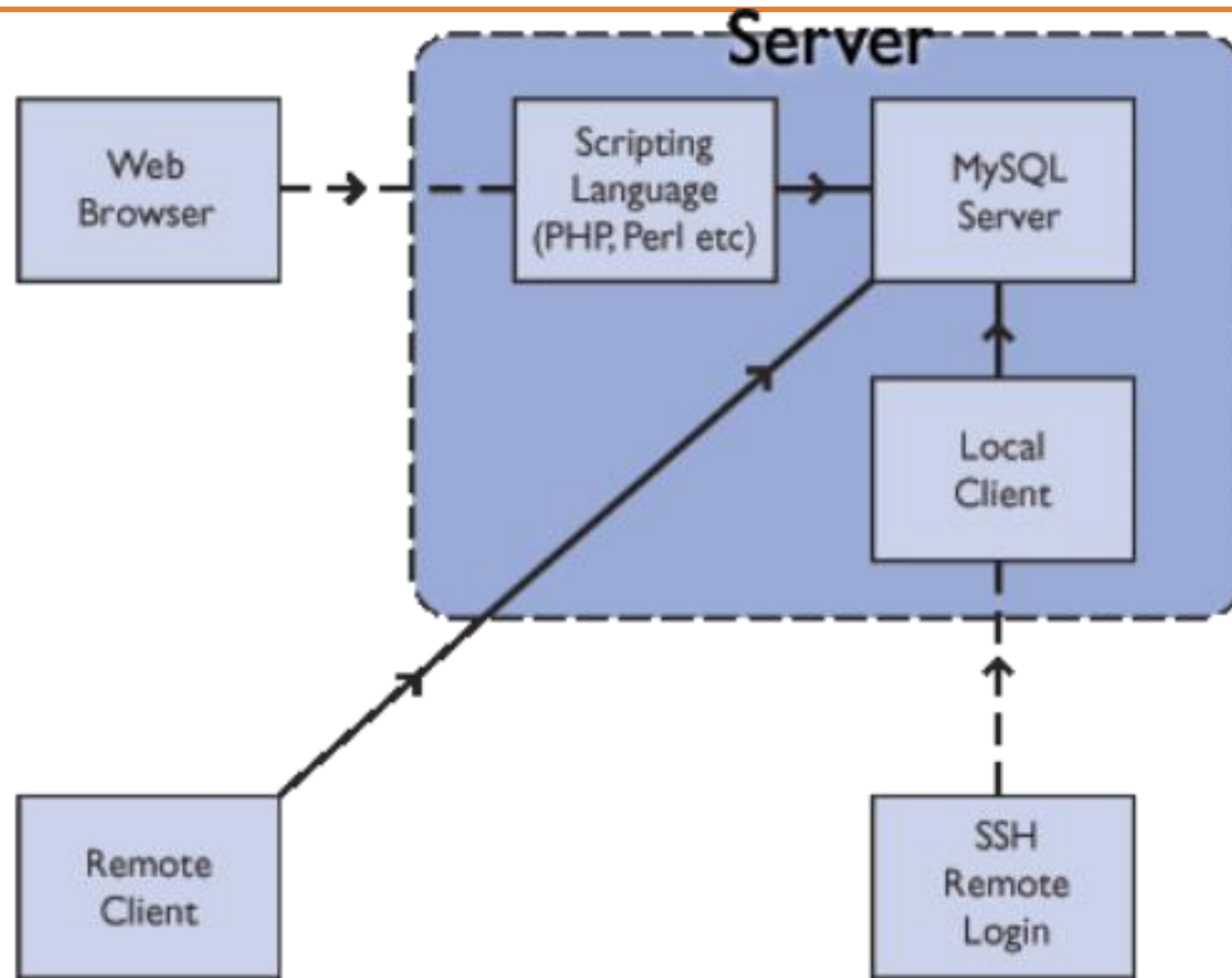


# MySQL ?

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- MySQL : RDBMS Server ( Client & Server )
- Dikembangkan oleh Michael Widenius & David Axmark 1994
- Lisensi GNU GPL / Proprietary dengan EULA
- Sekarang dimiliki oleh Sun Microsystems , dibawah Oracle Corporation
- Dibuat dengan kode C dan C++
- Berjalan di berbagai platform OS
- Disupport beberapa Engine Database (MyISAM, InnoDB)
- Disupport berbagai bahasa pemrograman ( tersedianya API / library untuk akses MySQL )
- Versi terakhir MySQL 5.7 ( [www.mysql.com](http://www.mysql.com))
- MySQL - MariaDB : database Open Source Based On MySQL

# Akses MySQL



# Software MySQL

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- Database Pada Sistem Operasi Linux telah menjadi satu paket dengan distribusi linux ( distro )
- Pada Sistem Operasi Windows bisa didownload di [www.mysql.com](http://www.mysql.com)
- Paket aplikasi LAMP / WAMP (Linux/Windows Apache MySQL PHP )
  - XAMPP ( [apachefriends.org](http://apachefriends.org) )
  - WAMP
  - Laragon ( [laragon.org](http://laragon.org) )
- Paket XAMPP / Laragon : MariaDB
- Linux Ubuntu : MariaDB

# Fitur MySQL

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- *Standard ANSI (American National Standards Institute)*
- *Support Cross-platform*
- *Stored Procedures, Triggers , View*
- *Information schema*
- *SSL (Secure Sockets Layer)*
- *Independent Storage Engine ( MyISAM, InnoDB, etc)*
- *Transaction ( InnoDB Engine)*
- *SUB SELECT*
- *Referential Integrity ( InnoDB Engine)*
- *Full Text Indexing (MyISAM Engine)*
- *Replication ( Master-Master & Master-Slave)*
- *Hot backup ( copy )*

# Antar Muka MySQL

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- *Program mysql client ( terminal / console)*
- *PhpMyAdmin, HeidiSQL, Adminer ( Web Based – PHP )*
- *MySQL Administrator, MySQL WorkBench ( Desktop Base )*
- *DBEdit (MySQL Frontend + other database)*
- *Navicat ( proprietary support aneka OS)*
- *DbForge Studio form MySQL, Epictetus, Oracle SQL Developer, NetBeans, SQLPro SQL Client*

# Storage Engines

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- **MyIsam**

- Pengembangan dari storage engine ISAM
- Non Transactional
- Mempunyai kecepatan dalam penyimpanan dan pengambilan data
- Mempunyai kecepatan pencarian text (full-text)
- Default Storage Engine dari MySQL

- **InnoDB**

- Storage Engines yang digunakan untuk Transaction
- Support Referential Integrity
- Lisensi GPL, [www.innodb.com](http://www.innodb.com)



# Storage Engines

```
mysql> show engines;
```

Engine	Support	Comment	Transactions	XA	Savepoints
MyISAM	YES	MyISAM storage engine	NO	NO	NO
MRG_MYISAM	YES	Collection of identical MyISAM tables	NO	NO	NO
CSV	YES	CSV storage engine	NO	NO	NO
BLACKHOLE	YES	/dev/null storage engine (anything you write to it disappears)	NO	NO	NO
PERFORMANCE_SCHEMA	YES	Performance Schema	NO	NO	NO
InnoDB	DEFAULT	Supports transactions, row-level locking, and foreign keys	YES	YES	YES
ARCHIVE	YES	Archive storage engine	NO	NO	NO
MEMORY	YES	Hash based, stored in memory, useful for temporary tables	NO	NO	NO
FEDERATED	NO	Federated MySQL storage engine	NULL	NULL	NULL

```
9 rows in set (0.00 sec)
```

# Menjalankan MySQL

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## **Aktifkan server MySQL pada sistem Linux Ubuntu**

*# service mysql start*

*atau*

*# systemctl start mysql*

## **Matikan server MySQL pada sistem Linux Ubuntu**

*# service mysql stop*

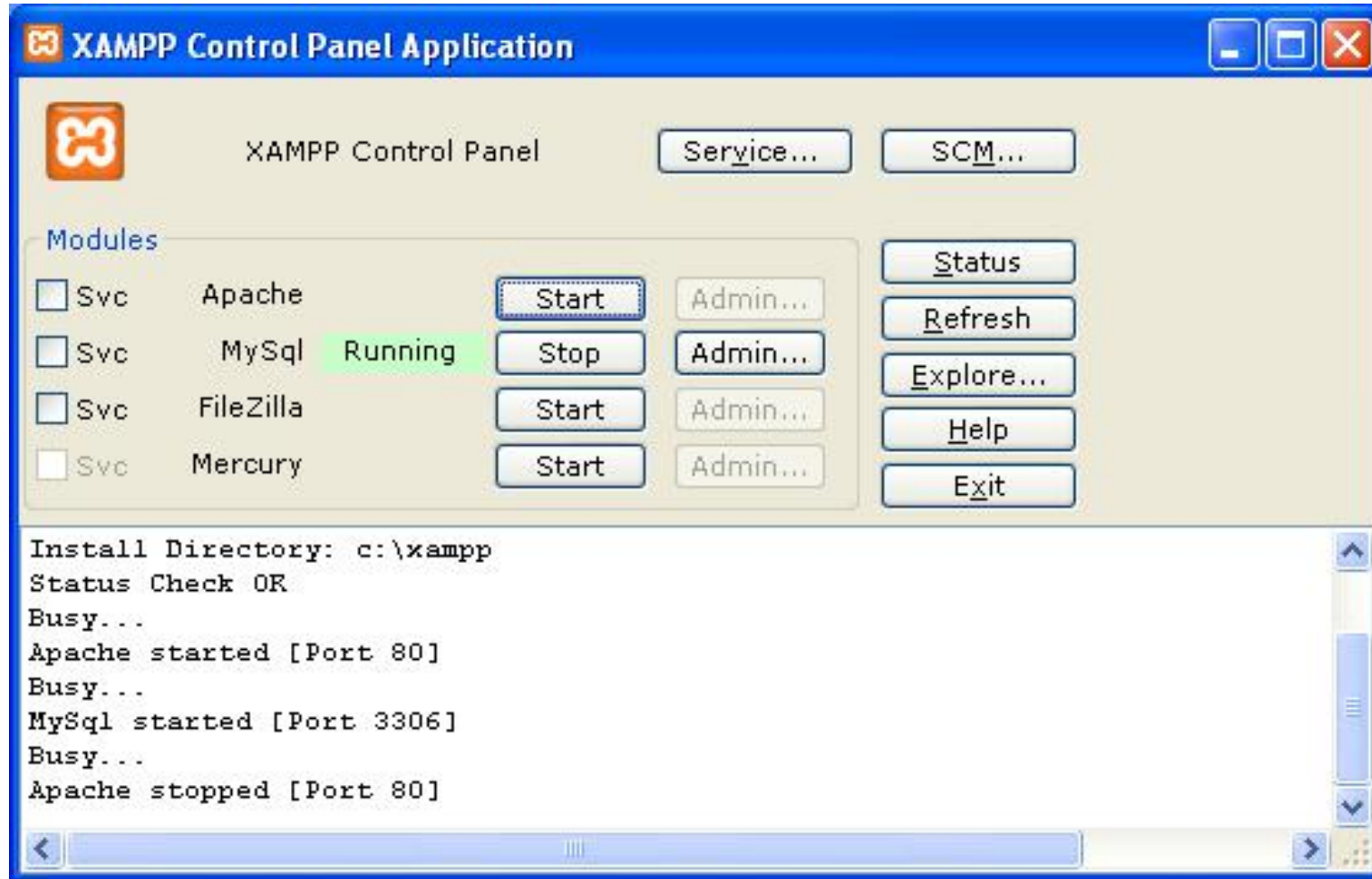
*atau*

*# systemctl stop mysql*

## **Pada sistem Windows / XAMPP**

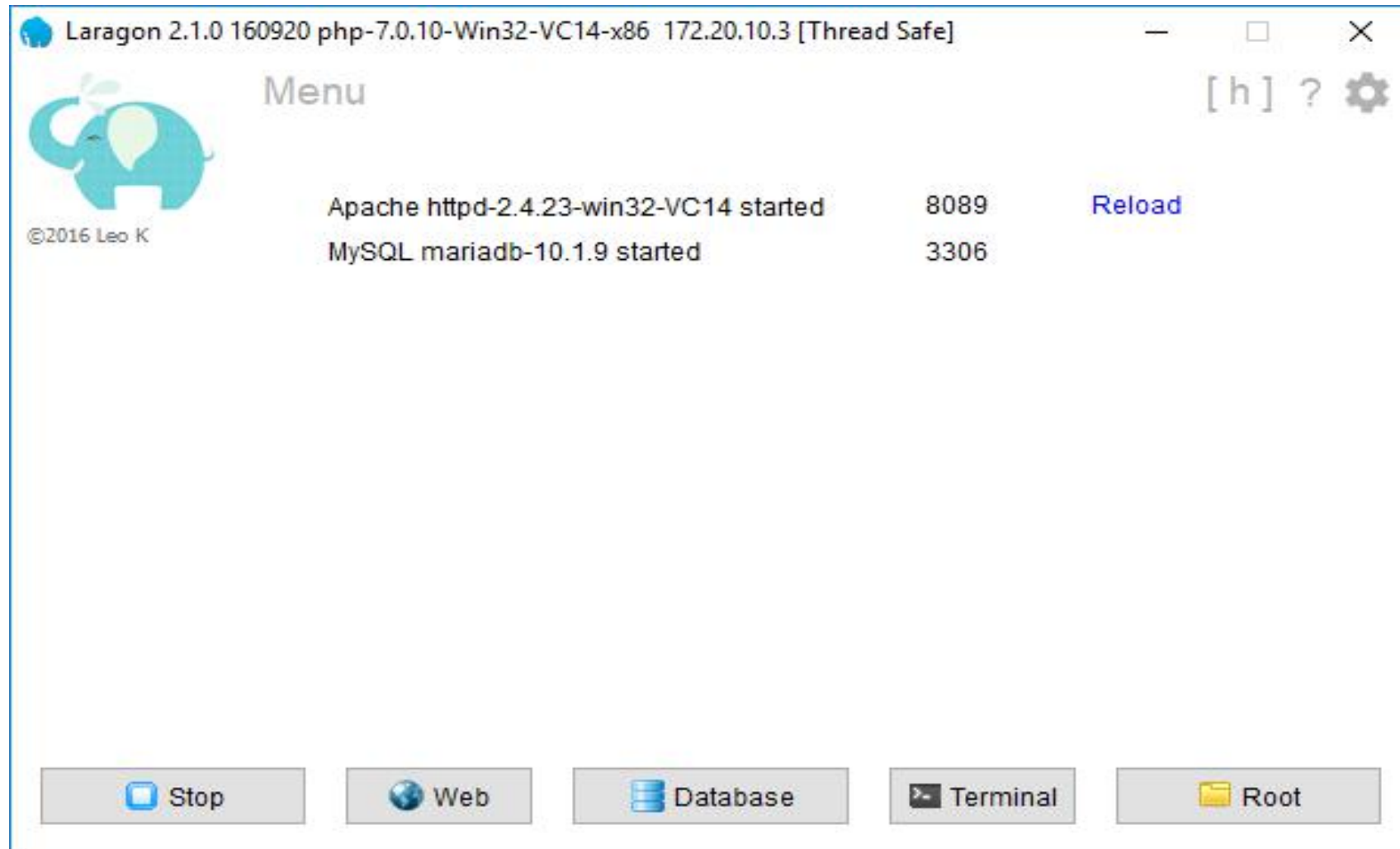
*Gunakan Control Panel XAMPP*

# XAMPP Control Panel



MySQL Berjalan  
pada Port 3306

# Laragon Control Panel



# Login Ke Server MySQL

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## **Pada sistem Linux**

- Buka console / terminal ketikan  
*\$ mysql*  
*atau*  
*\$ mysql -u root -p*
- Selanjutnya anda berada dalam prompt mysql
- User root adalah user admin mysql

## **Pada sistem Windows**

- Buka command prompt, dan masuk ke direktory instalasi mysql  
*C:\> cd C:\xampp\mysql\bin*
- Jalankan perintah  
*C:\xampp\mysql\bin> mysql -u root -p*
- Selanjutnya anda berada dalam prompt mysql

# Prompt MySQL

```
edo@dell-comp:~$ mysql -u root -p
```

Enter password:

Welcome to the MySQL monitor. Commands end with ; or \g.

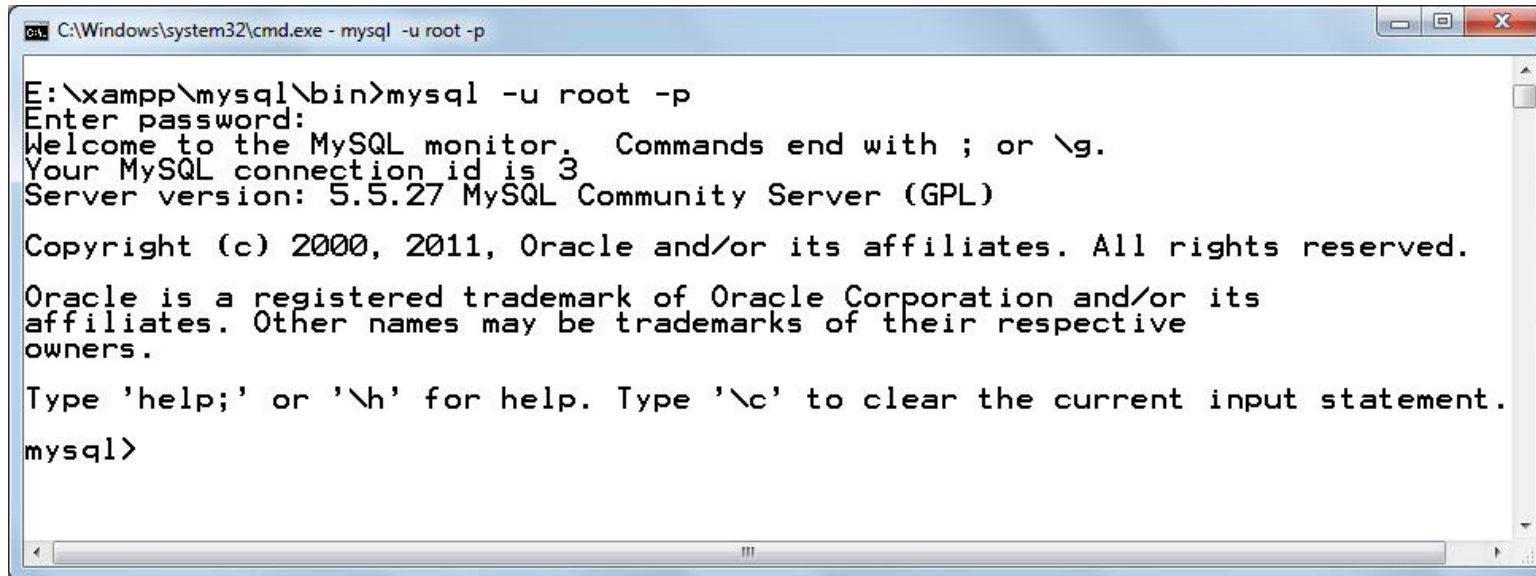
Your MySQL connection id is 5

Server version: 5.7.21-0ubuntu0.16.04.1 (Ubuntu)

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>

Linux

A screenshot of a Windows command prompt window titled "C:\Windows\system32\cmd.exe - mysql -u root -p". The window shows the MySQL command-line interface. The prompt is "E:\xampp\mysql\bin>mysql -u root -p". The user has entered the password, and the MySQL monitor has started. The output shows the MySQL version (5.5.27), the server type (MySQL Community Server (GPL)), and the copyright notice. The prompt is now "mysql>".

```
C:\Windows\system32\cmd.exe - mysql -u root -p
E:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 3
Server version: 5.5.27 MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql>
```

Windows