



Argentina  
programa  
4.0

# MySQL: desde la descarga e instalación hasta su primera tabla

“Desarrollador Java Inicial”

# Agenda

- MySQL
  - Instalación
  - Configuración del Servidor
  - Conexión Puertos
  - Crear una DB
  - Realizar consultas a través de los comandos

# Instalacion

- Ahora aprenderás paso a paso cómo **instalar MySQL** en la plataforma Windows usando el instalador **MySQL**. Después del tutorial, tendrás un servidor MySQL y tus herramientas en funcionamiento en tu computadora para aprender y practicar.



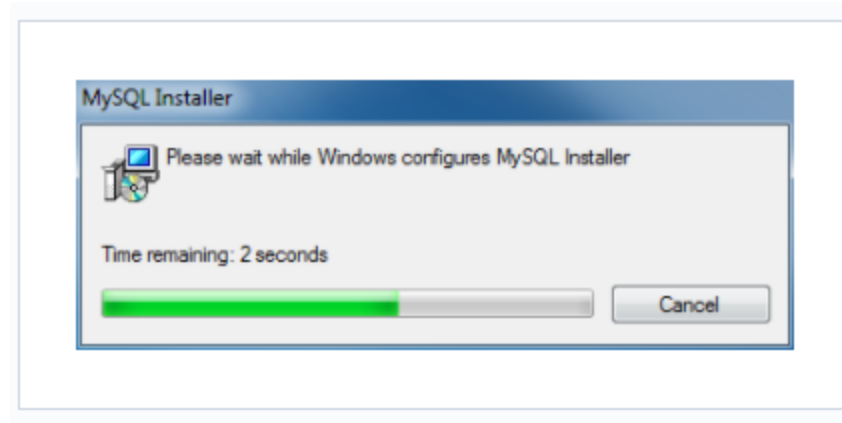
# Instalación paso a paso MySQL

- **Descargar MySQL**
- Si deseas instalar MySQL en un entorno Windows, el instalador de MySQL es la forma más sencilla. El instalador de MySQL proporciona un asistente fácil de usar que le ayuda a instalar MySQL con los siguientes componentes:
  - Servidor MySQL
  - Todos los conectores disponibles
  - MySQL Workbench con modelos de datos de muestra
  - Notificador de MySQL
  - Herramientas para Excel y Microsoft Visual Studio
  - Bases de datos de muestra de MySQL
  - Documentación de MySQL

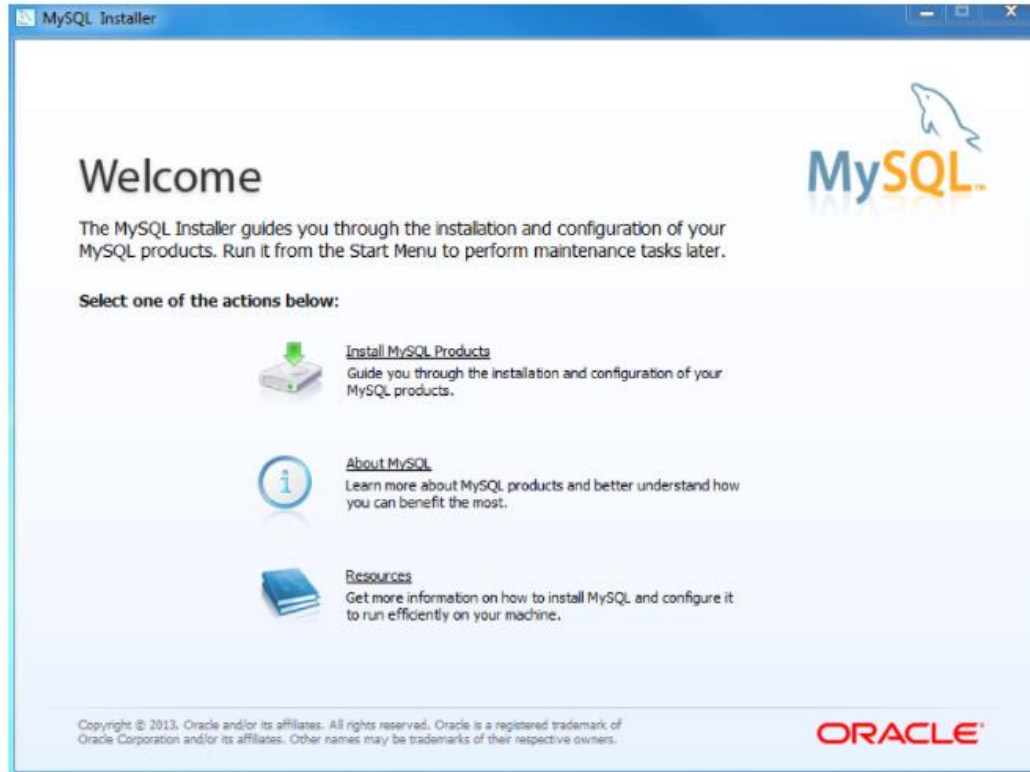
# Instalación paso a paso MySQL

- El **Instalador de MySQL** se puede descargar en este [enlace](#).
- Si te conectas a Internet mientras instalas MySQL, puedes elegir la versión de instalación en línea mysql-installer-web-community-.exe.
- Si deseas instalar MySQL sin conexión, puedes descargar el archivo mysql-installer-community-.exe.
- **Instalación de MySQL a través del instalador de MySQL**
- Para instalar MySQL usando el instalador de MySQL, haz doble clic en el archivo del instalador de MySQL y sigue los pasos a continuación:

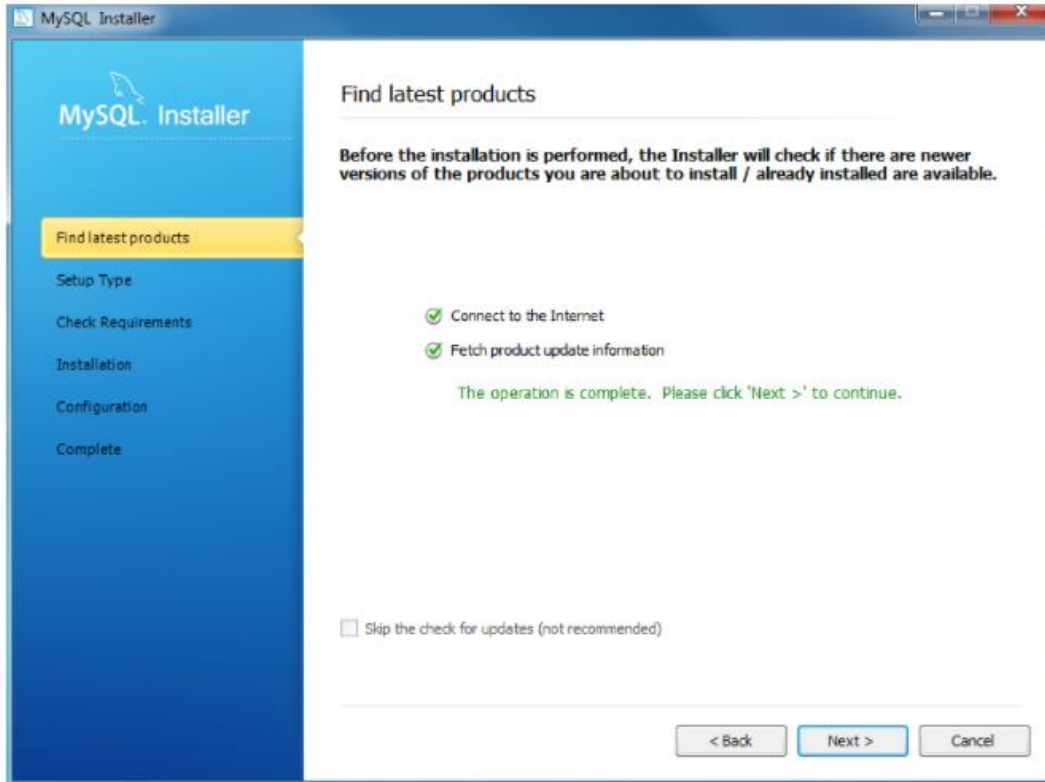
# Instalación paso a paso MySQL



# Instalación paso a paso MySQL



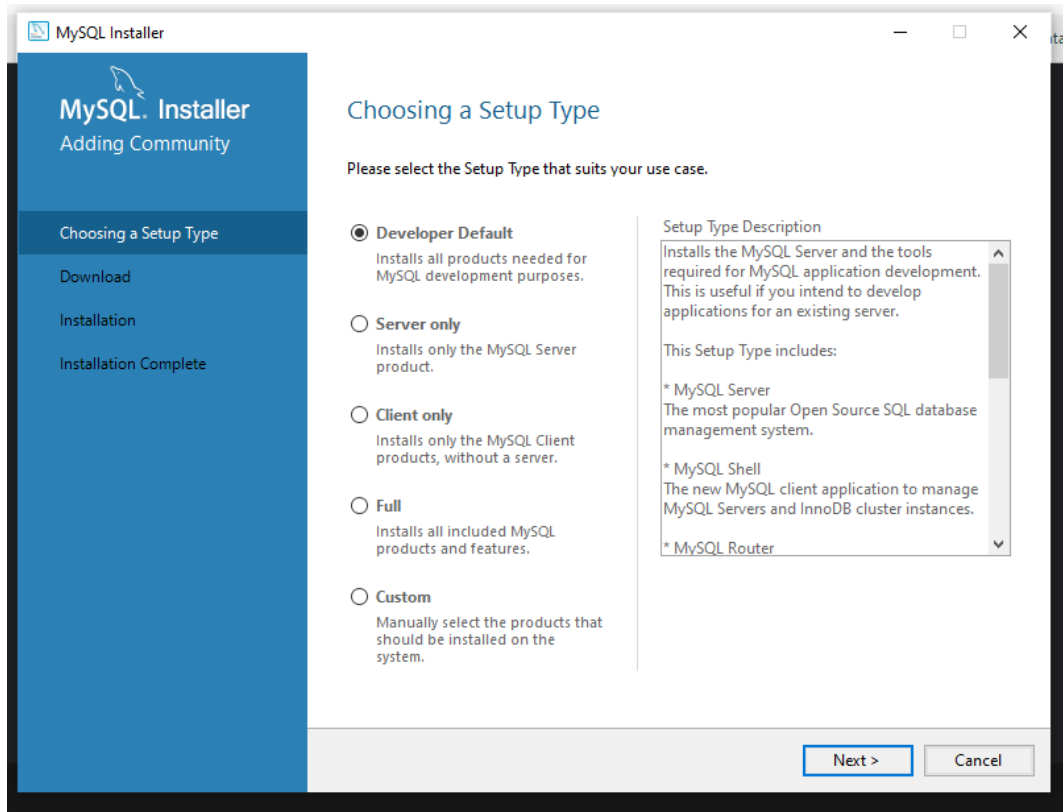
# Instalación paso a paso MySQL



Descarga los últimos productos MySQL: El instalador de MySQL comprueba y descarga los últimos productos de MySQL, incluyendo el servidor MySQL, MySQL Workbench, etc.

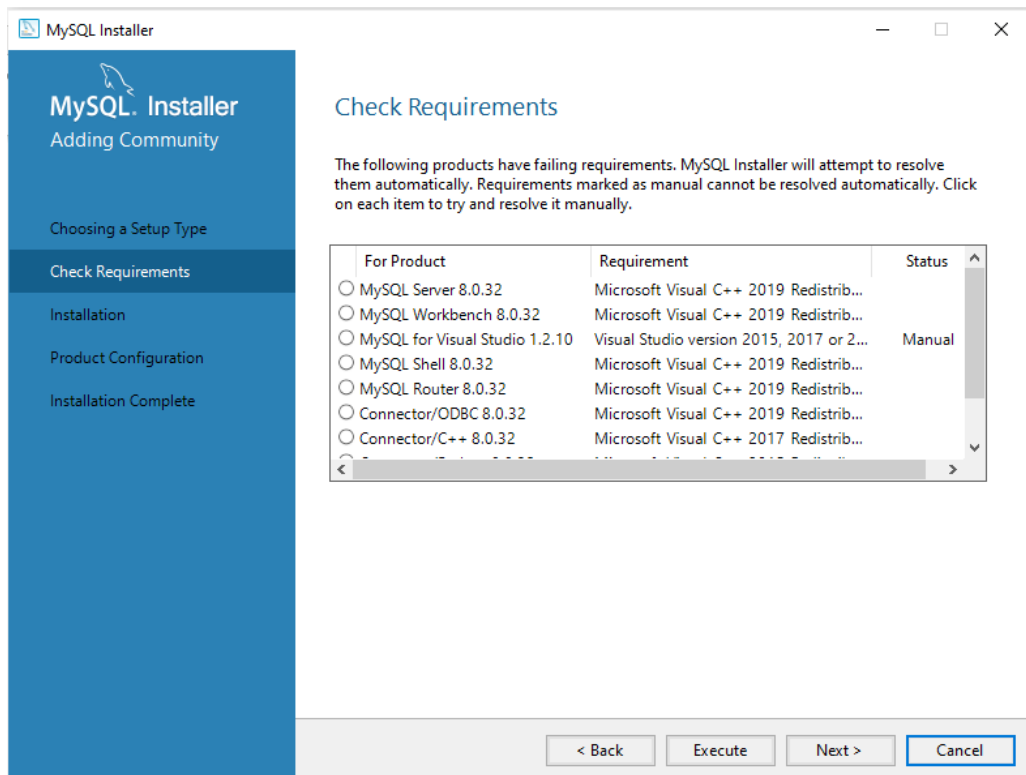


# Instalación paso a paso MySQL



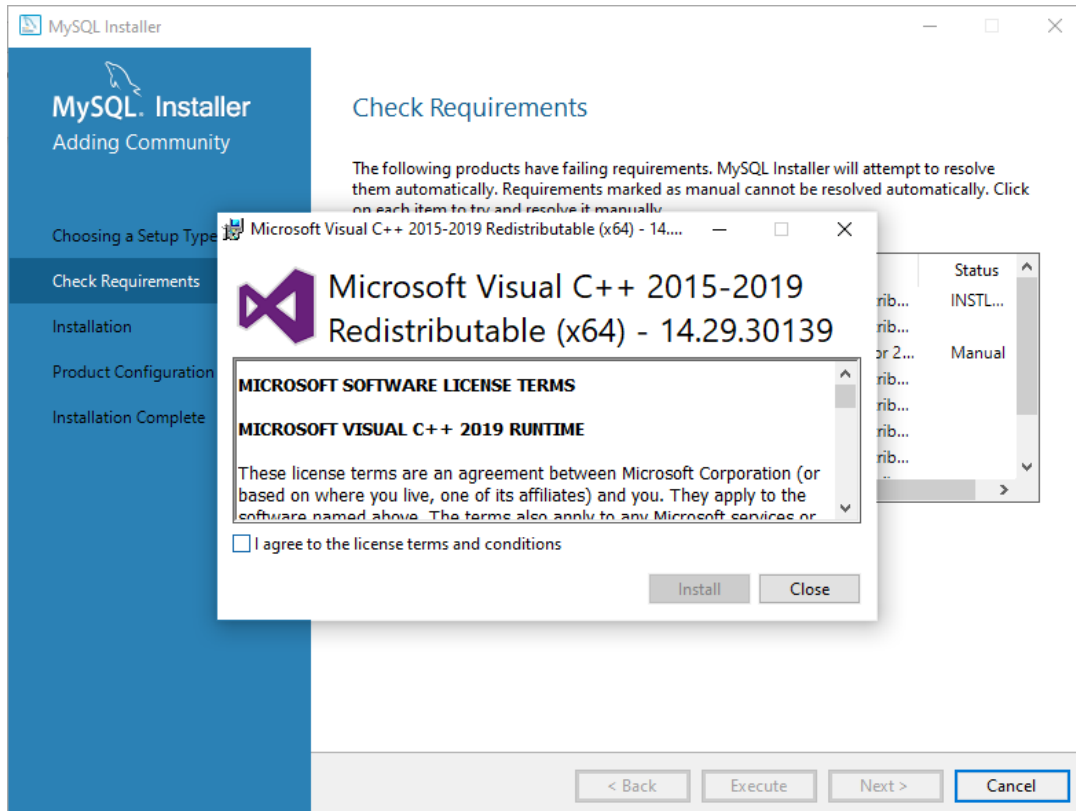
Elige un tipo de instalación:  
hay varios tipos de  
configuración disponibles.  
Elige la opción **Full** para  
instalar todos los productos y  
funciones de MySQL.

# Instalación paso a paso MySQL




Comprobando los requisitos

# Instalación paso a paso MySQL



Instalación en progreso: El instalador de MySQL descarga todos los productos seleccionados. Esto puede llevar un tiempo dependiendo de los productos seleccionados y la velocidad de su conexión a Internet.

# Instalación paso a paso MySQL

 MySQL Installer

MySQL<sup>®</sup> Installer  
Adding Community

Choosing a Setup Type











Installation

Product Configuration

Installation Complete

## Installation

The following products will be installed.

Product	Status	Progress	Notes
 MySQL Server 8.0.32	Ready to Install		
 MySQL Workbench 8.0.32	Ready to Install		
 MySQL Shell 8.0.32	Ready to Install		
 MySQL Router 8.0.32	Ready to Install		
 Connector/ODBC 8.0.32	Ready to Install		
 Connector/C++ 8.0.32	Ready to Install		
 Connector/J 8.0.32	Ready to Install		
 Connector/NET 8.0.32	Ready to Install		
 MySQL Documentation 8.0.32	Ready to Install		
 Samples and Examples 8.0.32	Ready to Install		

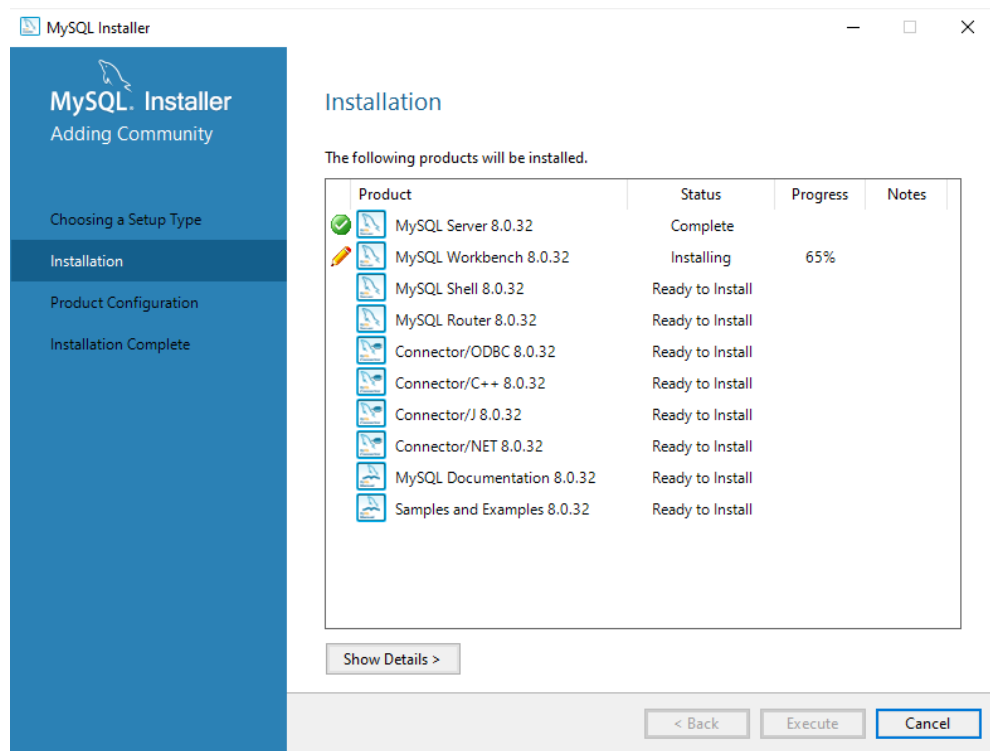
Click [Execute] to install the following packages.

< Back

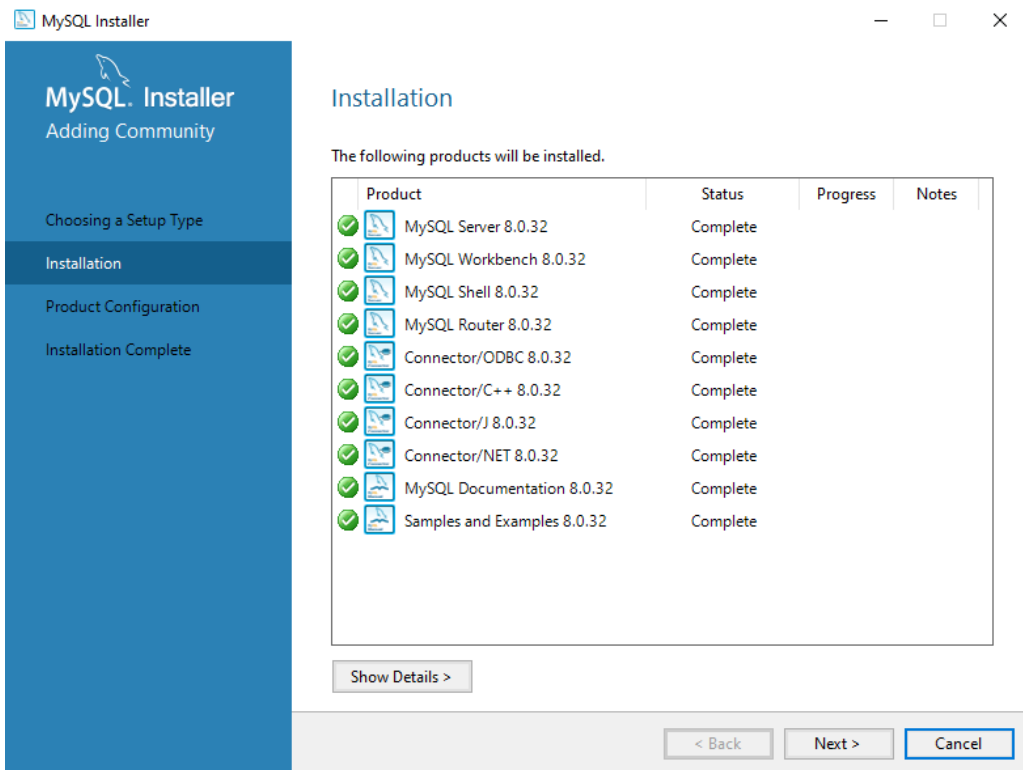
Execute

Cancel

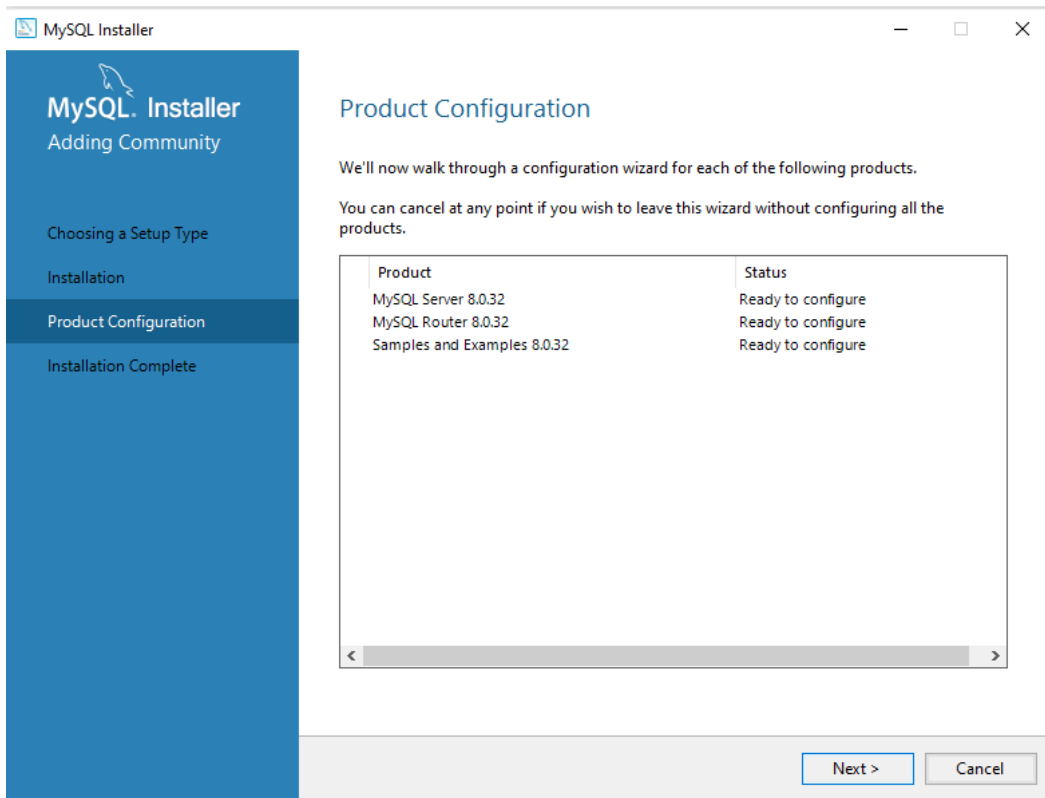
# Instalación paso a paso MySQL



# Instalación paso a paso MySQL

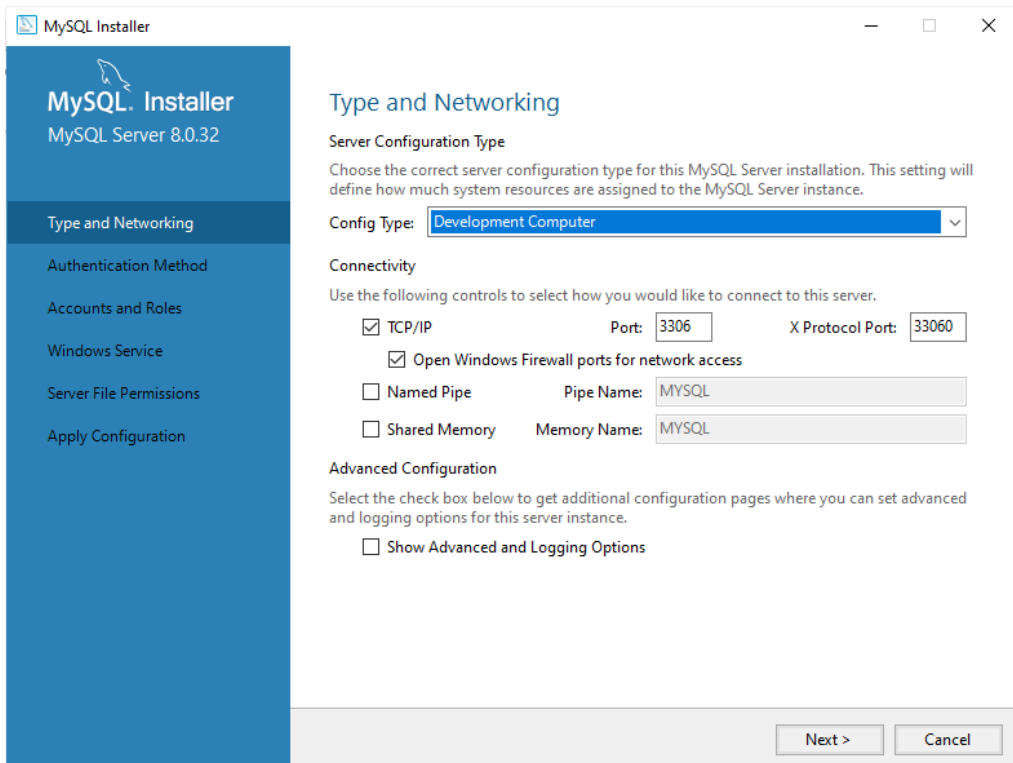


# Instalación paso a paso MySQL



Visión general de la configuración.  
Pulsa en el botón **Next** para  
configurar el servidor de base de  
datos MySQL

# Instalación paso a paso MySQL



The screenshot shows the 'MySQL Installer' window for 'MySQL Server 8.0.32'. The left sidebar contains a list of steps: 'Type and Networking' (selected), 'Authentication Method', 'Accounts and Roles', 'Windows Service', 'Server File Permissions', and 'Apply Configuration'. The main area is titled 'Type and Networking' and contains the following sections:

- Server Configuration Type**: A text box with the instruction 'Choose the correct server configuration type for this MySQL Server installation. This setting will define how much system resources are assigned to the MySQL Server instance.' Below it, a dropdown menu labeled 'Config Type:' is set to 'Development Computer'.
- Connectivity**: A text box with the instruction 'Use the following controls to select how you would like to connect to this server.' Below it, there are three options:
  - ☒ TCP/IP: Port: 3306, X Protocol Port: 33060
  - ☒ Open Windows Firewall ports for network access
  - ☐ Named Pipe: Pipe Name: MYSQL
  - ☐ Shared Memory: Memory Name: MYSQL
- Advanced Configuration**: A text box with the instruction 'Select the check box below to get additional configuration pages where you can set advanced and logging options for this server instance.' Below it, there is a checkbox labeled 'Show Advanced and Logging Options' which is currently unchecked.

At the bottom right of the window, there are two buttons: 'Next >' and 'Cancel'.

Configuración del servidor MySQL: elija el tipo de configuración y el puerto MySQL (3006 por defecto) y pulsa en el botón **Next** para seguir.



# Instalación paso a paso MySQL

MySQL Installer

MySQL Server 8.0.32

Type and Networking

**Authentication Method**

Accounts and Roles

Windows Service


Server File Permissions

Apply Configuration

Authentication Method

☐ Use Strong Password Encryption for Authentication (RECOMMENDED)

MySQL 8 supports a new authentication based on improved stronger SHA256-based password methods. It is recommended that all new MySQL Server installations use this method going forward.



Attention: This new authentication plugin on the server side requires new versions of connectors and clients which add support for this new 8.0 default authentication (caching\_sha2\_password authentication).

Currently MySQL 8.0 Connectors and community drivers which use libmysqlclient 8.0 support this new method. If clients and applications cannot be updated to support this new authentication method, the MySQL 8.0 Server can be configured to use the legacy MySQL Authentication Method below.

☒ Use Legacy Authentication Method (Retain MySQL 5.x Compatibility)

Using the old MySQL 5.x legacy authentication method should only be considered in the following cases:

- If applications cannot be updated to use MySQL 8 enabled Connectors and drivers.
- For cases where re-compilation of an existing application is not feasible.
- An updated, language specific connector or driver is not yet available.

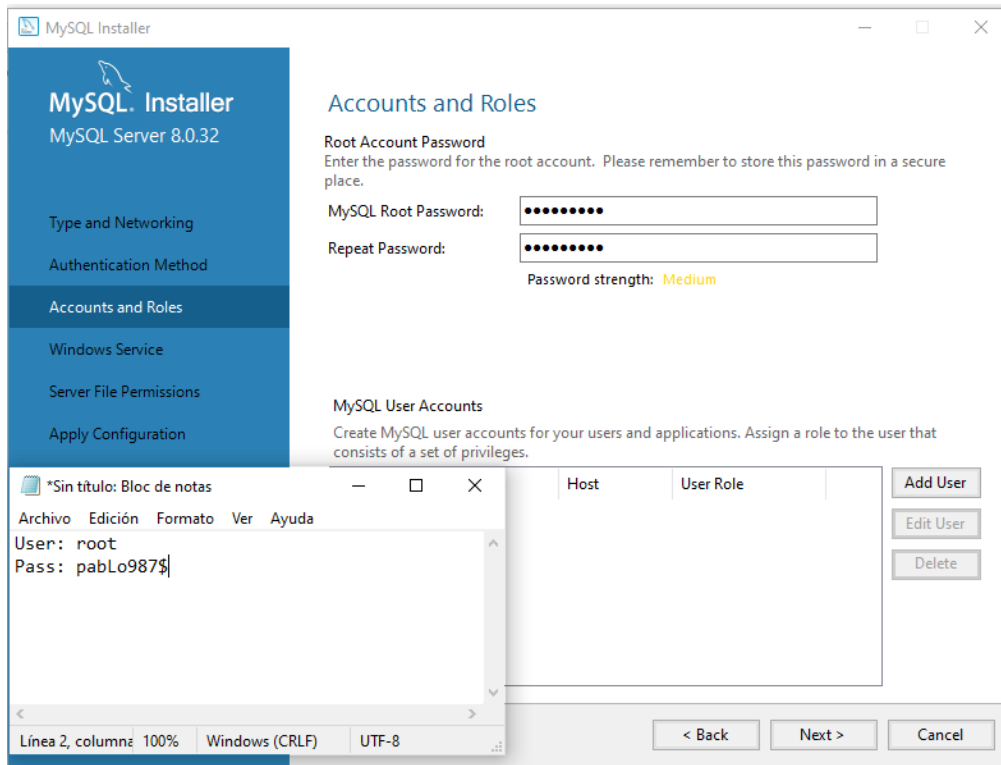
Security Guidance: When possible, we highly recommend taking needed steps towards upgrading your applications, libraries, and database servers to the new stronger authentication. This new method will significantly improve your security.

< Back

Next >

Cancel

# Instalación paso a paso MySQL



MySQL Installer

MySQL Server 8.0.32

Type and Networking

Authentication Method

Accounts and Roles

Windows Service

Server File Permissions

Apply Configuration

### Accounts and Roles

**Root Account Password**  
Enter the password for the root account. Please remember to store this password in a secure place.

MySQL Root Password:

Repeat Password:

Password strength: **Medium**

**MySQL User Accounts**  
Create MySQL user accounts for your users and applications. Assign a role to the user that consists of a set of privileges.

Host	User Role

Add User

Edit User

Delete

< Back

Next >

Cancel

\*Sin título: Bloc de notas

Archivo Edición Formato Ver Ayuda

User: root

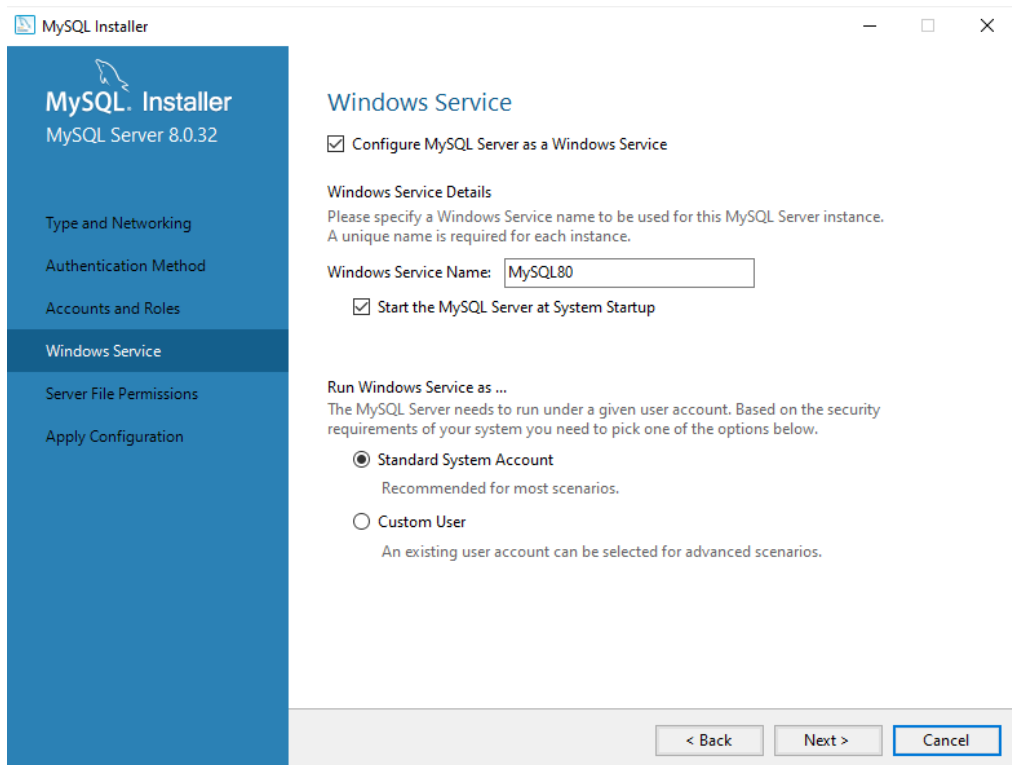
Pass: pabLo987\$

Línea 2, columna 100% Windows (CRLF) UTF-8

Elige una contraseña para la cuenta root. Anota la contraseña y mantenla segura si estás instalando el servidor de base de datos MySQL en un servidor de producción. Si deseas agregar un usuario de MySQL más, puedes hacerlo en este paso.

RECUERDEN GUARDAR LA CONTRASEÑA EN UN LUGAR SEGURO

# Instalación paso a paso MySQL



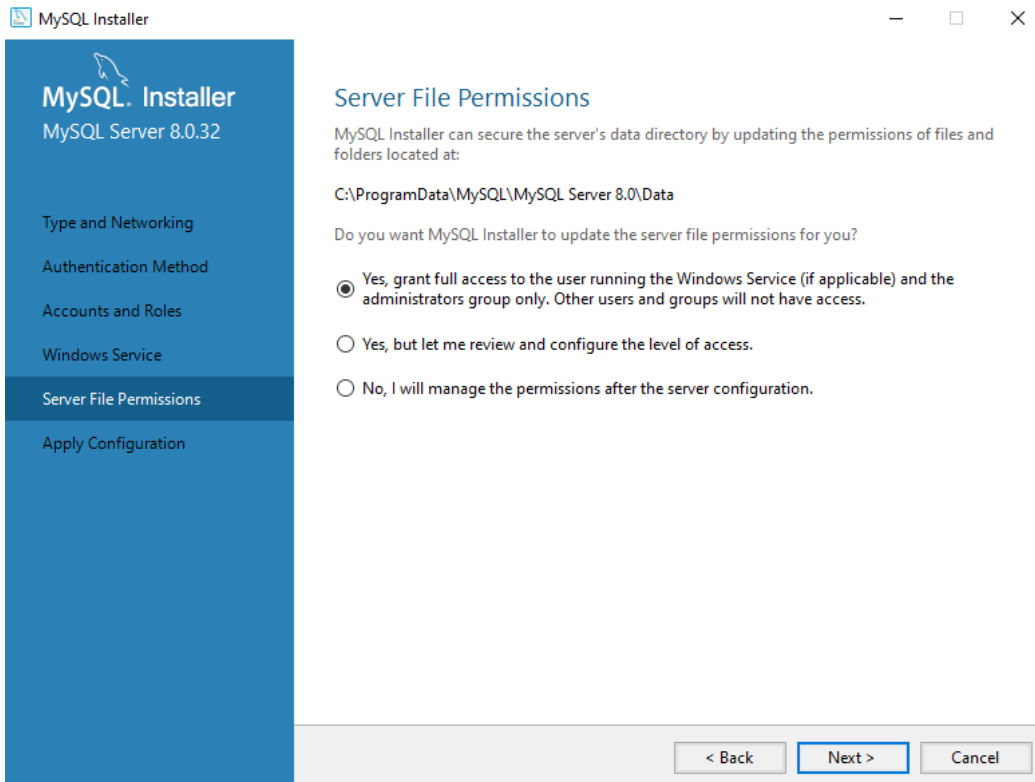
The screenshot shows the 'MySQL Installer' window for 'MySQL Server 8.0.32'. The left sidebar contains a list of configuration steps: 'Type and Networking', 'Authentication Method', 'Accounts and Roles', 'Windows Service' (which is the active step), 'Server File Permissions', and 'Apply Configuration'. The main area is titled 'Windows Service' and contains the following options:

- ☒ **Configure MySQL Server as a Windows Service**
- Windows Service Details**  
Please specify a Windows Service name to be used for this MySQL Server instance. A unique name is required for each instance.  
**Windows Service Name:**
- ☒ **Start the MySQL Server at System Startup**
- Run Windows Service as ...**  
The MySQL Server needs to run under a given user account. Based on the security requirements of your system you need to pick one of the options below.
  - ☒ **Standard System Account**  
Recommended for most scenarios.
  - ☐ **Custom User**  
An existing user account can be selected for advanced scenarios.

At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'.

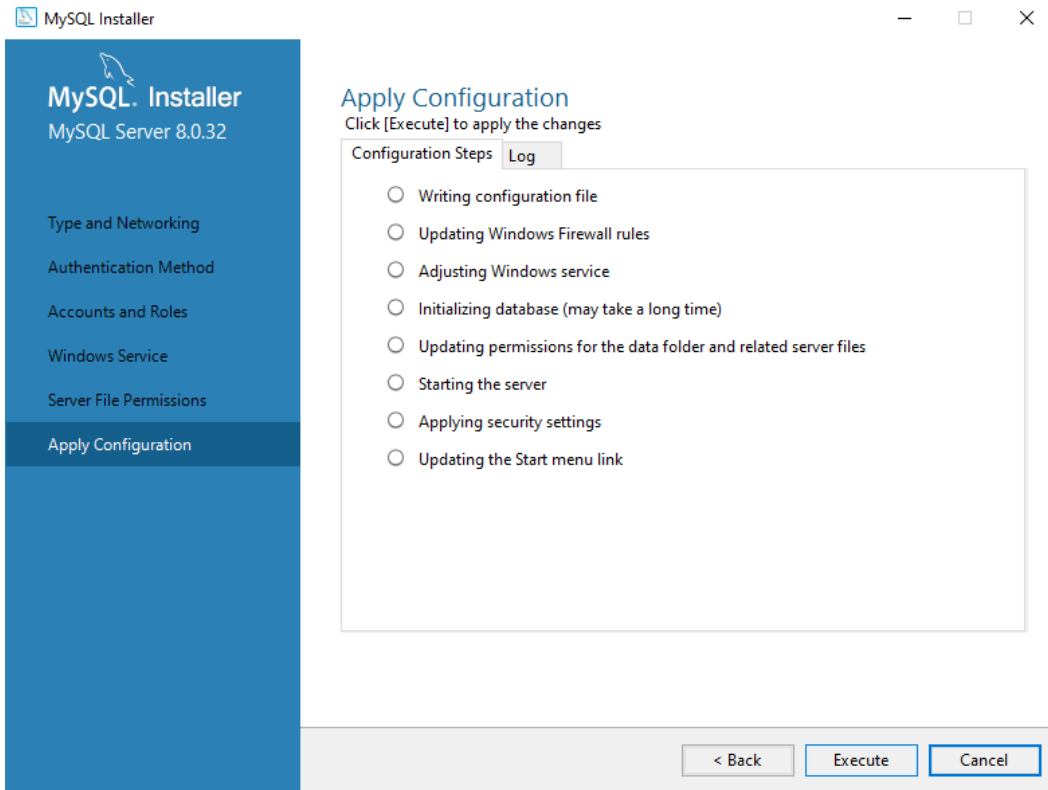
Elige los detalles del servicio de Windows, incluyendo el Nombre del servicio de Windows y el tipo de cuenta, luego pulsa en el botón **Next** para seguir.

# Instalación paso a paso MySQL



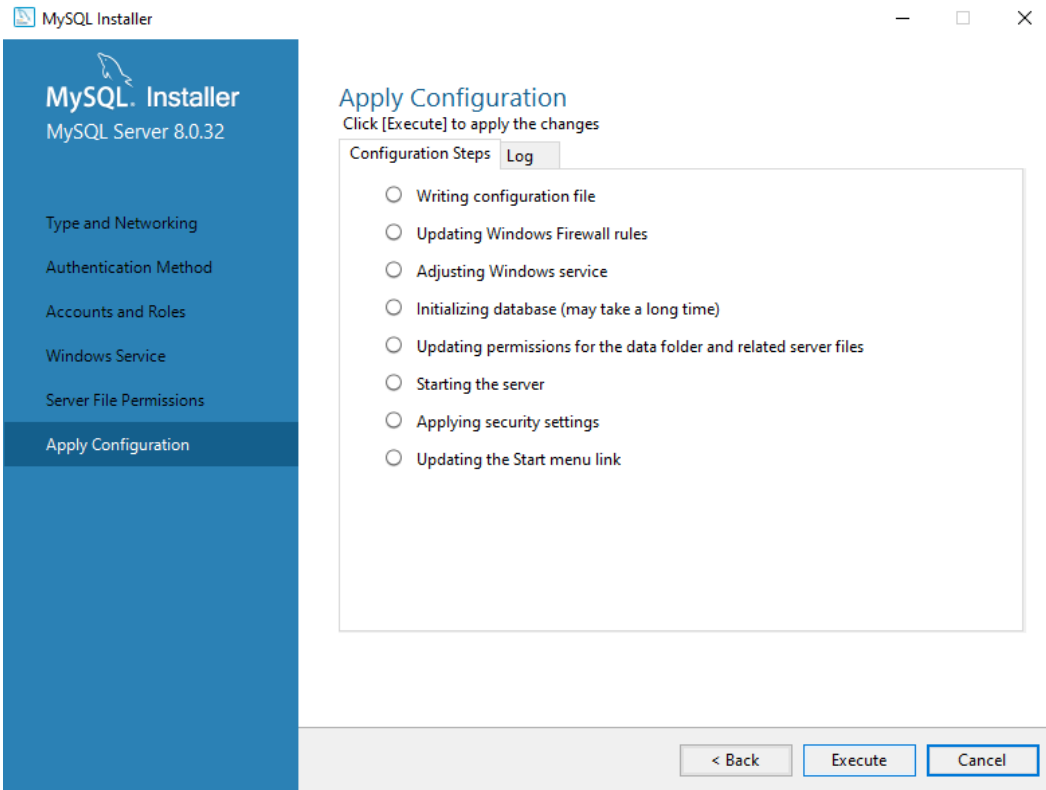
Garantizamos el acceso al servicio de  
Windows

# Instalación paso a paso MySQL

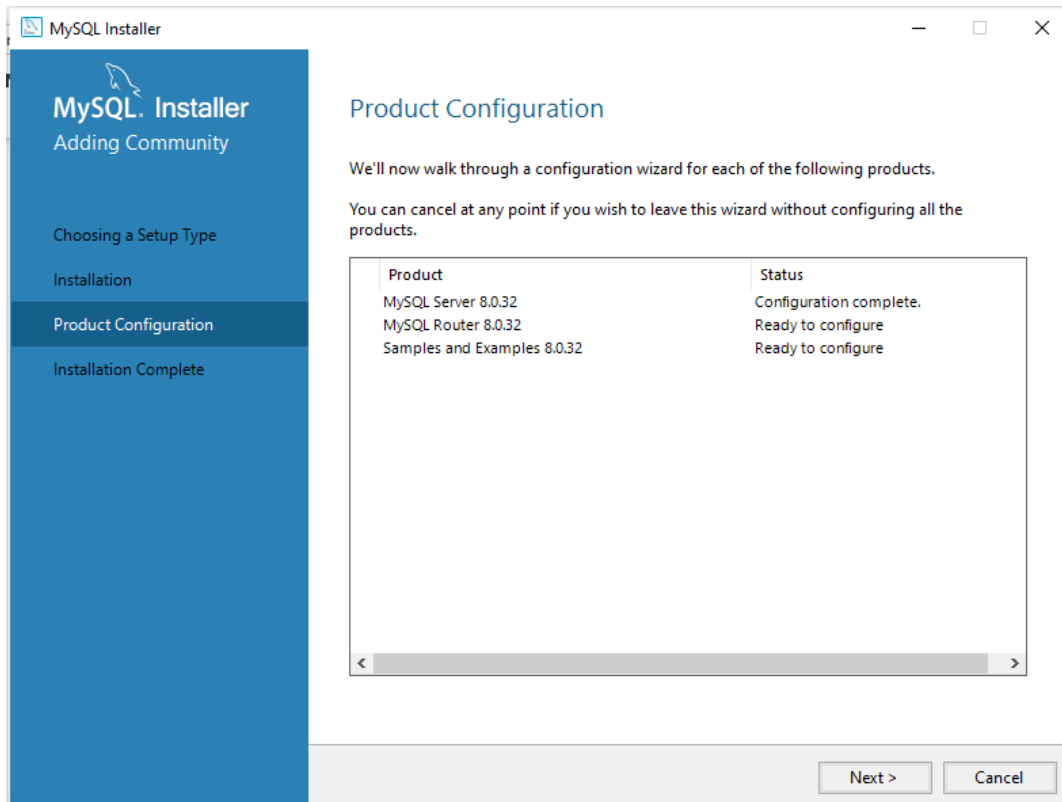


El Instalador de MySQL está configurando el servidor de base de datos MySQL. Espera hasta que termine y pulsa en el botón **Next** para seguir.

# Instalación paso a paso MySQL



# Instalación paso a paso MySQL



El Instalador de MySQL está configurando el servidor de base de datos MySQL. Espera hasta que termine y pulsa en el botón **Next** para seguir.

El Instalador de MySQL instala bases de datos y plantillas de muestra.

# Instalación paso a paso MySQL

MySQL Installer

MySQL. Installer  
MySQL Router 8.0.32

MySQL Router Configuration

## MySQL Router Configuration

☐ Bootstrap MySQL Router for use with InnoDB Cluster

This wizard can bootstrap MySQL Router to direct traffic between MySQL applications and InnoDB Cluster. Applications that connect to the router will be automatically directed to an available read/write or read-only member of the cluster.

The bootstrapping process requires a connection to InnoDB Cluster. In order to register the MySQL Router for monitoring, use the current Read/Write instance of the cluster.

Hostname:

Port:

Management User:

Password:

Test Connection

MySQL Router requires specification of a base port (between 80 and 65532). The first port is used for classic read/write connections. The other ports are computed sequentially after the first port. If any port is indicated to be in use, please change the base port.

Classic MySQL protocol connections to InnoDB Cluster:

Read/Write:

Read Only:

X Protocol connections to InnoDB Cluster:

Read/Write:

Read Only:

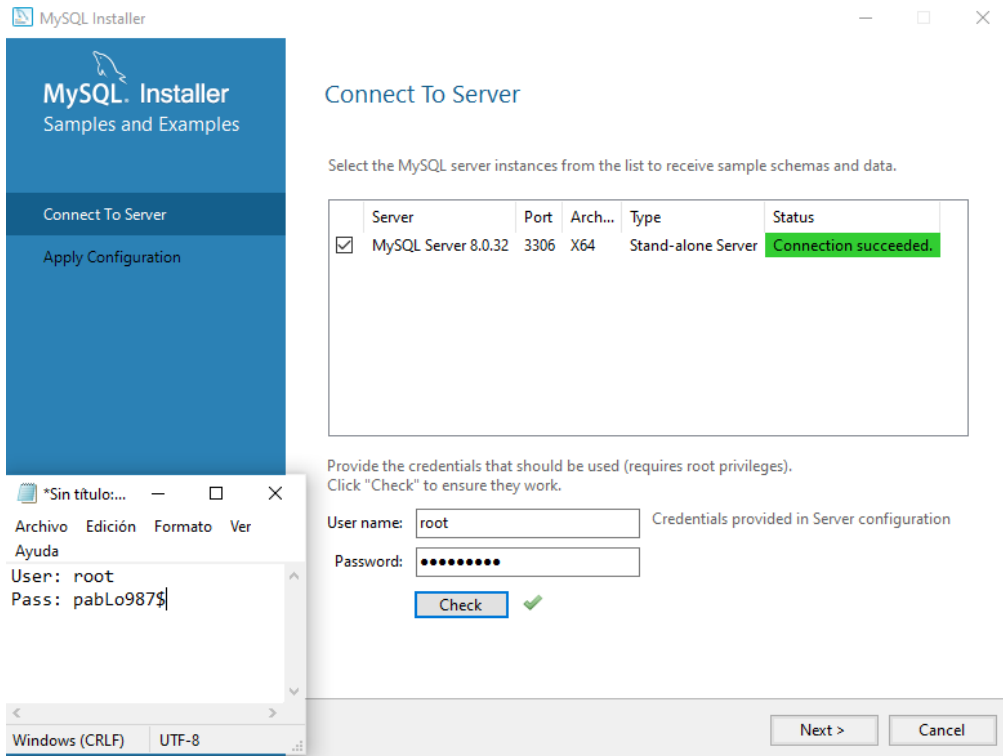
Finish

Cancel

Omitimos esta configuración, solo hacemos click en Finish

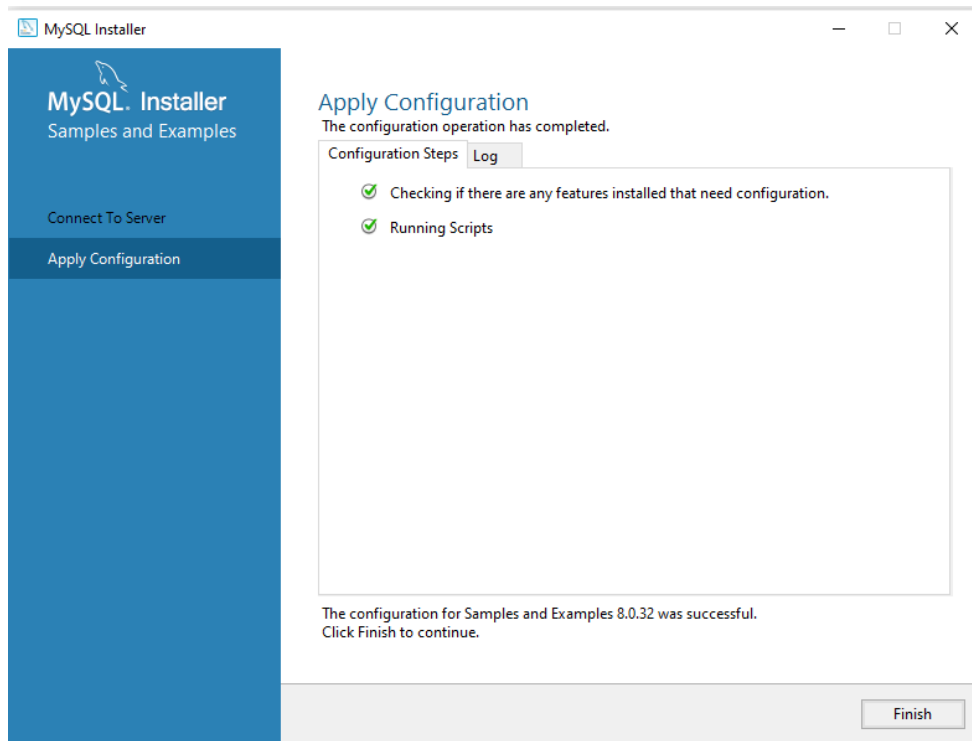


# Instalación paso a paso MySQL

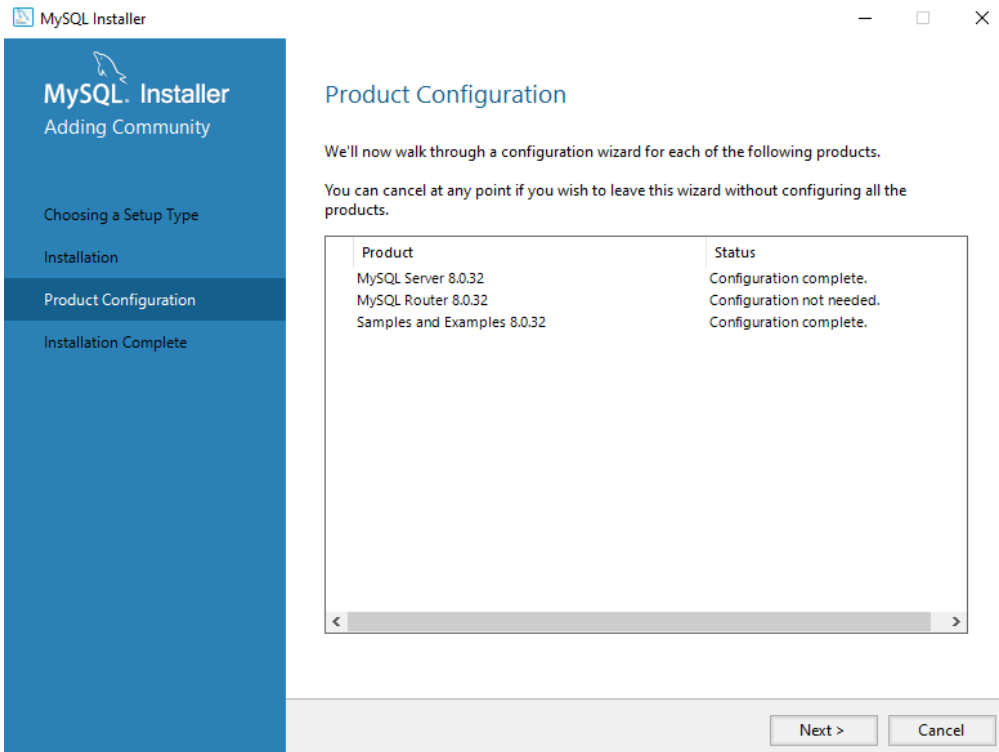


Ingresamos los datos del user root, para validar nuestras credenciales.

# Instalación paso a paso MySQL



# Instalación paso a paso MySQL



# Instalación paso a paso MySQL

MySQL Installer

MySQL. Installer  
Adding Community

Choosing a Setup Type

Installation

Product Configuration

Installation Complete

## Installation Complete


The installation procedure has been completed.

Copy Log to Clipboard

☒ Start MySQL Workbench after setup

☒ Start MySQL Shell after setup

The MySQL Shell is an advanced MySQL client application that can be used to work with single MySQL Server instances. Further, it can be used to create and manage InnoDB Cluster, an integrated solution for high availability and scalability of MySQL databases, without requiring advanced MySQL expertise.



Refer to the following links for documentation, tutorials and examples on MySQL Shell:

[MySQL Shell Documentation](#)

[Setting up a Real World Cluster Blog](#)

[The All New MySQL InnoDB ReplicaSet Blog](#)

[Changing Cluster Options Live Blog](#)

Finish

La instalación está completa. Pulsa en el botón **Finish** (Terminar) para cerrar el asistente de instalación e iniciar MySQL Workbench.

# Creamos nuestra DB

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator: **Query 1**

Create a new schema in the connected server

**SCHEMAS**

Filter objects

consultorio

- Tables
  - pacientes
  - Views
  - Stored Procedures
  - Functions
- sakila
- sys
- world

1 `SELECT * FROM pacientes`

2 `ORDER BY PacienteDNI DESC;`

Result Grid

	PacienteDNI	PacienteNom	PacienteApe	PacienteEdad
▶	105	Daniel	Vega	33
	104	Luis	Rodriguez	45
	103	Maria	Roig	14
	102	Jose	Gonzalez	56
	101	Franklin1	Garcia	25
*	NULL	NULL	NULL	NULL

Administration Schemas

Information

Schema: **consultorio**

Object Info Session

Query Completed

pacientes 3 x

Output

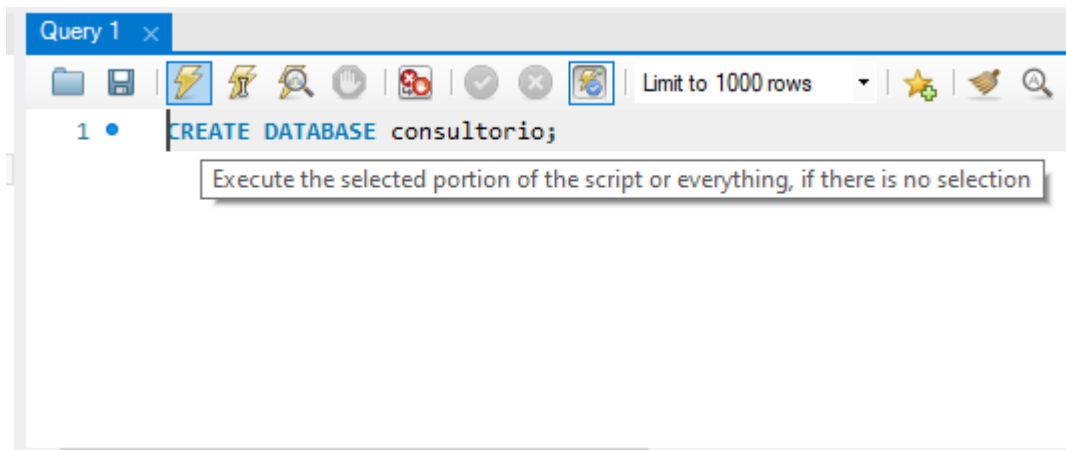
Action Output

#	Time	Action
✓ 40	21:59:39	INSERT INTO pacientes (PacienteDNI, PacienteNom, PacienteApe, PacienteEdad) VALUES
✓ 41	21:59:39	INSERT INTO pacientes (PacienteDNI, PacienteNom, PacienteApe, PacienteEdad) VALUES
✓ 42	21:59:39	INSERT INTO pacientes (PacienteDNI, PacienteNom, PacienteApe, PacienteEdad) VALUES
✓ 43	21:59:54	select * from pacientes LIMIT 0, 1000
✓ 44	22:03:30	SELECT * FROM pacientes ORDER BY PacienteDNI DESC LIMIT 0, 1000

# Query

- Crear nuestra primera DB

CREATE DATABASE consultorio;

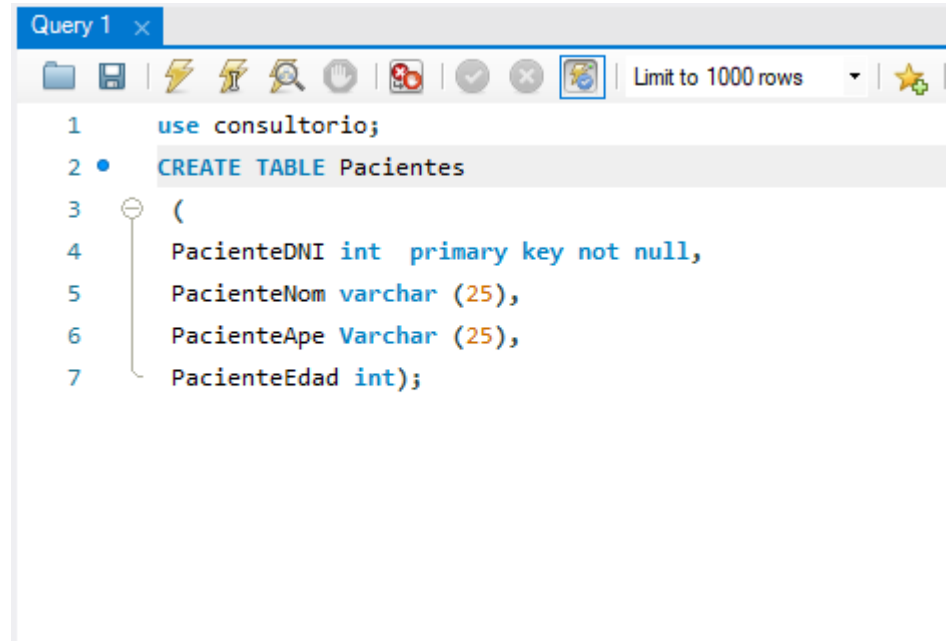


# Creamos nuestra primera tabla

use consultorio;

```
CREATE TABLE Pacientes  
(  
  PacienteDNI int primary key not null,  
  PacienteNom varchar (25),  
  PacienteApe Varchar (25),  
  PacienteEdad int);
```

Puede ser paciente u operario, depende el planteo.



```
Query 1 x  
1 use consultorio;  
2 CREATE TABLE Pacientes  
3 (  
4   PacienteDNI int primary key not null,  
5   PacienteNom varchar (25),  
6   PacienteApe Varchar (25),  
7   PacienteEdad int);
```

# Listado de comandos

- crear una DB
- create database nombre de la DB
- ----
- crear una tabla
- use consultorio; // comando me indica que DB usar
- create table pacientes(
  - PacDNI int(10) not null,
  - PacNom varchar(30) not null,
  - PacApe varchar(30) not null,
  - primary key(PacDNI)
  - ) ENGINE=innodb;



# Listado de comandos

- agregar datos a la tabla
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987654','Facundo','Maza');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987655','Jose','Garcia');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987656','Maria','Perez');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987657','Miguel','Gonzalez');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987658','Fernando','Rodroiguez');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987659','Analia','Minuti');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987650','Pablo','Pardel');
- insert into pacientes (PacDNI,PacNom,PacApe) values ('30987452','Belen','Montes');

ordenar por ..

- `select * from pacientes`
- `order by PacDNI asc;`
  
- `select * from pacientes`
- `order by PacDNI desc;`
  
- -----
- actualizar
- `update pacientes set PacNom = 'Javier' where PacDNI = 30987654;`
- ---
- `select * from pacientes where PacNom = 'Miguel';`

# Para modelo Relacional (ing reverse)

## creacion paso a paso

create database consultorio;

use consultorio;

## las tablas paciente:

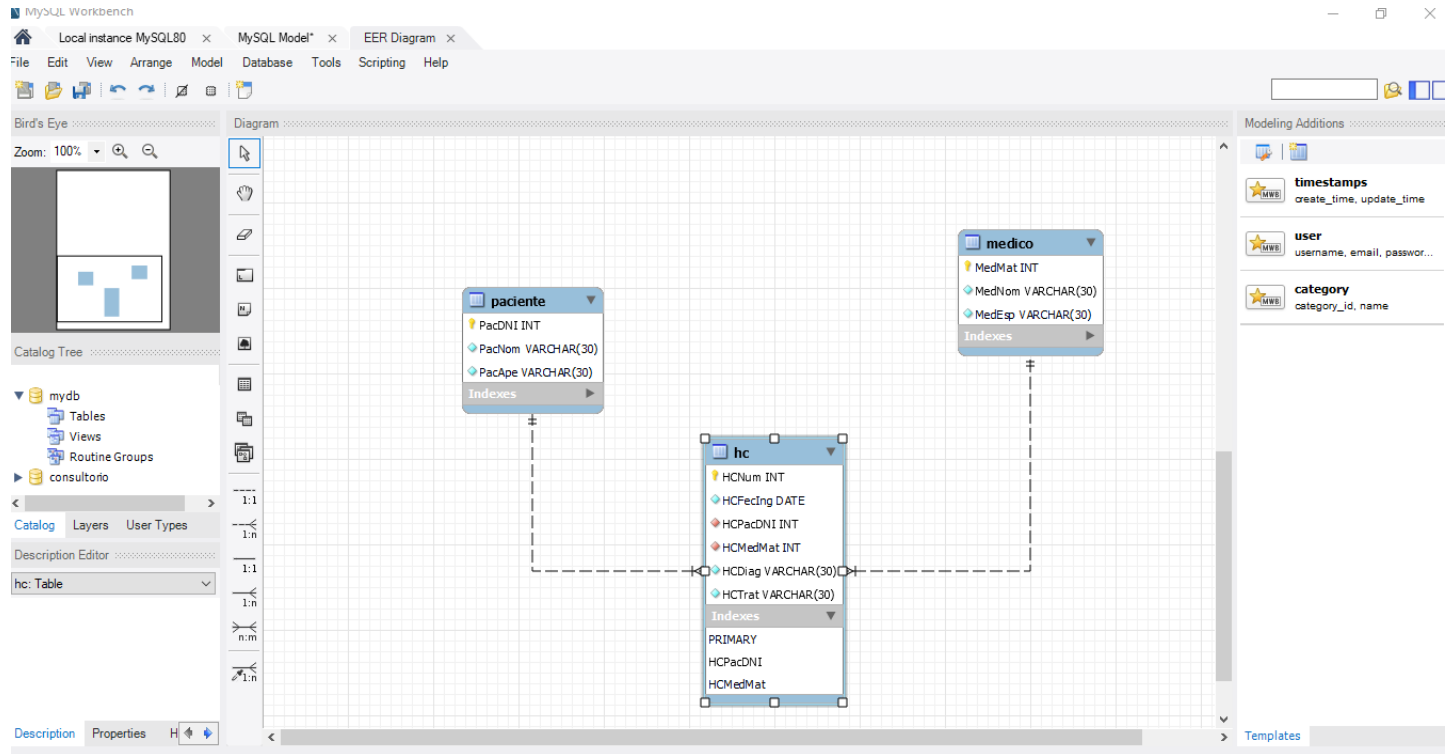
- create table paciente(
  - PacDNI int(10) not null,
  - PacNom varchar(30) not null,
  - PacApe varchar(30) not null,
  - primary key(PacDNI))
- ENGINE=innodb;

Tabla medicos:

- create table medico(  
• MedMat int(10) not null,  
• MedNom varchar(30) not null,  
• MedEsp varchar(30) not null,  
• primary key(MedMat))  
• ENGINE=innodb;

## Tabla Historia Clinica HC

- create table hc(
  - HCNum int(10) not null,
  - HCFecIng date not null,
  - primary key(HCNum),
  - HCPacDNI int(10) not null,
  - foreign key(HCPacDNI) references paciente(PacDNI) on delete cascade on update cascade,
  - HCMedMat int(10) not null,
  - foreign key(HCMedMat) references medico(MedMat) on delete cascade on update cascade,
  - HCDiag varchar(30) not null,
  - HCTrat varchar(30) not null
- )ENGINE=innodb;





**Argentina  
programa  
4.0**

# Gracias!

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