To install MySQL on Windows, follow these steps:

**Step 1: Download MySQL Installer**

1. Go to the **official MySQL website**:  
   [🔗 MySQL Downloads](https://dev.mysql.com/downloads/installer/)
2. Download the **MySQL Installer for Windows** (Choose the "MySQL Installer (MSI)" version).
   * **MySQL Installer - Web (Online)**
   * **MySQL Installer - Full (Offline, includes all components)** *(Recommended if you have a slow internet connection)*.

**Step 2: Run the MySQL Installer**

1. Locate the downloaded **.msi** file and double-click to run it.
2. If prompted, **allow** the installer to make changes to your device.

**Step 3: Choose the Installation Type**

You will see different setup types:

* **Developer Default** – Installs MySQL Server, Workbench, Shell, and other tools.
* **Server Only** – Installs only the MySQL server.
* **Client Only** – Installs MySQL Workbench, Shell, and other client tools.
* **Full** – Installs everything.
* **Custom** – Allows manual selection of components.

*For most users, the* ***Developer Default*** *option is recommended.*

**Step 4: Install the Selected Components**

1. Click **Next**, then **Execute** to begin the installation.
2. Wait for the installer to download and install MySQL components.

**Step 5: Configure MySQL Server**

1. Select **Standalone MySQL Server** and click **Next**.
2. Choose the **Config Type**:
   * *Development Computer* (low memory usage)
   * *Server Computer* (moderate memory usage)
   * *Dedicated Computer* (high memory usage)
3. Select **TCP/IP** and ensure the port is **3306**.
4. Choose **Strong Password Encryption** (recommended).
5. Set a **MySQL Root Password** and confirm it.
6. Add **MySQL User Accounts** (optional).
7. Configure MySQL as a **Windows Service** (recommended).

**Step 6: Apply Configuration**

1. Click **Next**, then **Execute** to apply the configurations.
2. Once complete, click **Finish**.

**Step 7: Verify the Installation**

1. Open **MySQL Workbench**.
2. Click on **Local instance MySQL** and enter your root password.
3. If the connection is successful, MySQL is installed and running.

**Alternative: Verify via Command Line**

1. Open **Command Prompt** (cmd).
2. Run:
3. mysql -u root -p
4. Enter your password.
5. If you see the **MySQL prompt (mysql>)**, installation is successful.

**Troubleshooting**

* If MySQL service does not start, check **Windows Services (services.msc)**.
* Ensure **port 3306** is not blocked by a firewall.
* Run **MySQL Installer** again to repair installation if needed.

**Setting Up MySQL Workbench on Windows**

After installing MySQL, follow these steps to set up **MySQL Workbench** for managing your databases.

**Step 1: Open MySQL Workbench**

1. Click **Start Menu** and search for **MySQL Workbench**.
2. Open **MySQL Workbench**.

**Step 2: Create a New MySQL Connection**

1. Click the **+ (New Connection)** button under *MySQL Connections*.
2. In the **Setup New Connection** window:
   * **Connection Name:** Any name (e.g., Localhost\_MySQL).
   * **Connection Method:** *Standard (TCP/IP)*.
   * **Hostname:** 127.0.0.1 or localhost.
   * **Port:** 3306 (default MySQL port).
   * **Username:** root (or any user you created).
   * **Password:** Click **Store in Vault...** and enter your MySQL root password.
3. Click **Test Connection** to verify.
   * If successful, click **OK** and then **OK** again to save the connection.

**Step 3: Connect to MySQL Server**

1. Click the newly created connection.
2. Enter the **password** if prompted.
3. Click **OK**, and you should now see the MySQL **Workbench dashboard**.

**Step 4: Create a New Database**

1. In the **Navigator Panel**, click **Schemas**.
2. Right-click in the **Schemas area** and select **Create Schema**.
3. Enter a **database name** (e.g., test\_db).
4. Click **Apply**, then **Apply** again, and **Finish**.
5. The database should now appear under *Schemas*.

**Step 5: Create a Table**

1. Expand your database (test\_db).
2. Right-click **Tables** and choose **Create Table**.
3. Enter a **Table Name** (e.g., users).
4. Add columns:
   * id (INT, Primary Key, Auto Increment)
   * name (VARCHAR(100))
   * email (VARCHAR(100))
5. Click **Apply**, then **Apply** again to create the table.

**Step 6: Insert & Query Data**

1. Click **Tables > users**, then **Select Rows - Limit 1000**.
2. To insert data manually, click the **Result Grid**, add a new row, and click **Apply**.
3. To run an SQL query, open a new SQL tab (Ctrl + T) and enter:
4. INSERT INTO users (name, email) VALUES ('John Doe', 'john@example.com');

Click **Execute** (Ctrl + Enter).

1. To retrieve data:
2. SELECT \* FROM users;

Click **Execute**.

**Troubleshooting**

* **Can't Connect?** Ensure MySQL service is running (services.msc).
* **Access Denied?** Check your root password or create a new user with privileges.
* **Port 3306 Blocked?** Change the port in MySQL Workbench settings.