Here's a clearer comparison:

**1. TRUNCATE:**

* **Purpose**: Removes **all** rows in a table. It's a bulk operation.
* **How it works**:
  + It doesn't log individual row deletions but instead deallocates the data pages used by the table.
  + It **does not** fire triggers (like DELETE would).
* **Speed**: It's **faster** because it doesn't log each row and operates at the data page level.
* **Rollback**:
  + In some databases, TRUNCATE is a **non-transactional** operation, meaning you can’t roll it back if you’re not using transactions.
  + In databases like PostgreSQL, TRUNCATE **can** be rolled back if wrapped in a transaction.
* **Side Effects**:
  + Resets any **auto-increment** counters or identity columns (e.g., an ID column).
  + **Cannot** have a WHERE clause (you can’t selectively delete rows).

**2. DELETE:**

* **Purpose**: Deletes **specific** rows or all rows from a table based on a condition (using the WHERE clause).
* **How it works**:
  + Logs every row deletion individually.
  + **Fires triggers** (if any are defined), and checks constraints (like foreign keys).
* **Speed**: It's **slower** than TRUNCATE because of logging and triggers, especially when deleting many rows.
* **Rollback**: **Can** be rolled back if part of a transaction. You can undo DELETE within a transaction if necessary.
* **Side Effects**:
  + Does **not** reset auto-increment or identity columns.
  + **Can** have a WHERE clause to delete specific rows based on conditions.

**Key Differences:**

| **Feature** | **TRUNCATE** | **DELETE** |
| --- | --- | --- |
| Affects Rows | Removes **all rows** | Can remove **specific rows** with WHERE clause |
| Speed | **Faster**, due to minimal logging | **Slower**, due to row-by-row logging |
| Identity Columns | **Resets** (auto-increment values) | **Does not reset** |
| Triggers | **Does not fire** | **Fires triggers** |
| Rollback | Can be **non-transactional** | **Can be rolled back** within transactions |
| WHERE Clause | **Cannot** use WHERE | **Can** use WHERE |

**When to Use Each:**

* **Use TRUNCATE** when:
  + You want to remove all rows from a table quickly and don't need to worry about individual row deletions.
  + You don’t need to handle triggers or constraints.
* **Use DELETE** when:
  + You need to delete specific rows (using the WHERE clause).
  + You need to trigger any actions, like cascading deletes or notifying other parts of your system via triggers.