Difference Between Delete, Drop, and Truncate:

| | Delete | Drop | Truncate |
|------------------|--|---|---|
| Command | Delete is Data Manipulation Command Language. | Drop is Data Definition Command Language. **** | Truncate is Data Definition Command Language. |
| Use | It is used to delete one or more rows/records from the existing database table. | Drop is used to delete the whole table from the database. **** | |
| Transition | Here we can use the "ROLLBACK" command to restore the tuple. If we delete any row from the database then we can get back that deleted row from the database. | Here we cannot restore the tuples of the table by using the "ROLLBACK" command. If we use the drop command then we cannot get back the whole table from using rollback. | Here we cannot restore the tuples of the table by using the "ROLLBACK" command. If we use the truncate command then also we cannot get back all the deleted rows. |
| Memory Space | Delete command does not free the allocated space of the table from memory. **** | Drop command removes the allocated space of the table from memory. **** | Truncate command does not free the allocated space of the table from memory. **** |
| Performace Speed | Delete command is slower than | Drop command is quick to perform | Truncate command is faster |

| | Drop command and Truncate command. | than Delete Command but not as compared to the Truncate command. | than Drop command and Delete command. |
|--------------------------|---|---|--|
| Integrity Constraints | In the Delete command, Integrity Constraints remain the same. | In the DROP command, integrity constraints will be removed. | In theTruncate command, integrity constraints will not be removed. |
| Permission | To use Delete you need DELETE permission on the table. | To use Drop you need ALTER permission on the schema to which the table belongs and CONTROL permission on the table. | To use Truncate on a table you need ALTER permission on the table. |
| Syntax | DELETE FROM table_name WHERE condition; | DROP TABLE table_name; | TRUNCATE TABLE table_name; |

Differences between Char & Varchar:

| Char | Varchar | | |
|--|---|--|--|
| It is an abbreviation for characters. | It is an abbreviation for variable characters. | | |
| Char datatype is used to store character strings of fixed length. | Varchar datatype is used to store character strings of variable length. | | |
| It uses static memory location. | It uses dynamic memory location. | | |
| Char takes 1 byte space for each character. | Varchar take 1 byte for each character along with some extra bytes to store length information. | | |
| We can use char datatype when we know the length of the string. | We can use it when we are not sure of the length of the string. | | |
| Char datatype can be used when we expect the data values in a column to be of same length. | Varchar datatype can be used when we expect the data values in a column to be of variable length. | | |