**Types of internal tables (02-11-2021)**

There are three types of internal tables in SAP ABAP programming

* Standard Internal Tables.
* Sorted Internal Tables.
* Hashed Internal Tables.

**Standard internal table:**

Standard tables have a linear index. You can access them using either the index or the key.

If you use the key, the response time is in linear relationship to the number of table entries.

The key of a standard table is always non-unique, and you may not include any specification for the uniqueness in the table definition.

**Sorted table:**

They also have a linear key, and, like standard tables, you can access them using either the table index or the key.

When you use the key, the response time is in logarithmic relationship to the number of table entries, since the system uses a binary search.

The key of a sorted table can be either unique, or non-unique, and you must specify either UNIQUE or NON-UNIQUE in the table definition.

Standard tables and sorted tables both belong to the generic group index tables.

You fill the table using the (INSERT) statement, according to the sort sequence defined in the table key.

Table entries that do not fit are recognized before they are inserted.

Sorted tables are appropriate for partially sequential processing in a LOOP, as long as the WHERE condition contains the beginning of the table key.

**Harshes table:**

Hashes tables have no internal linear index. You can only access hashed tables by specifying the key.

The response time is constant, regardless of the number of table entries, since the search uses a hash algorithm.

The key of a hashed table must be unique, and you must specify UNIQUE in the table definition.

This table type is particularly suitable if you want mainly to use key access for table entries. You cannot access hashed tables using the index.

When you use key access, the response time remains constant, regardless of the number of table entries.

As with database tables, the key of a hashed table is always unique. Hashed tables are therefore a useful way of constructing and using internal tables that are similar to database tables