- For more information about the `CREATE TABLESPACE` and `ALTER TABLESPACE` statements, see Section 13.1.21, “CREATE TABLESPACE Statement”, and Section 13.1.10, “ALTER TABLESPACE Statement”.

3. Now it is possible to create a table whose unindexed columns are stored on disk using files in tablespace `ts_1`:

```
CREATE TABLE dt_1 (
    member_id INT UNSIGNED NOT NULL AUTO_INCREMENT PRIMARY KEY,
    last_name VARCHAR(50) NOT NULL,
    first_name VARCHAR(50) NOT NULL,
    dob DATE NOT NULL,
    joined DATE NOT NULL,
    INDEX(last_name, first_name)
    )
    TABLESPACE ts_1 STORAGE DISK
    ENGINE NDBCLUSTER;
```

`TABLESPACE ts_1 STORAGE DISK` tells the `NDB` storage engine to use tablespace `ts_1` for data storage on disk.

Once table `ts_1` has been created as shown, you can perform `INSERT`, `SELECT`, `UPDATE`, and `DELETE` statements on it just as you would with any other MySQL table.

It is also possible to specify whether an individual column is stored on disk or in memory by using a `STORAGE` clause as part of the column's definition in a `CREATE TABLE` or `ALTER TABLE` statement. `STORAGE DISK` causes the column to be stored on disk, and `STORAGE MEMORY` causes in-memory storage to be used. See Section 13.1.20, “CREATE TABLE Statement”, for more information.

You can obtain information about the `NDB` disk data files and undo log files just created by querying the `FILES` table in the `INFORMATION_SCHEMA` database, as shown here:

```
mysql> SELECT
             FILE_NAME AS File, FILE_TYPE AS Type,
             TABLESPACE_NAME AS Tablespace, TABLE_NAME AS Name,
             LOGFILE_GROUP_NAME AS 'File group',
             FREE_EXTENTS AS Free, TOTAL_EXTENTS AS Total
          FROM INFORMATION_SCHEMA.FILES
          WHERE ENGINE='ndbcluster';
+--------------+----------+------------+------+------------+------+---------+
| File         | Type     | Tablespace | Name | File group | Free | Total   |
+--------------+----------+------------+------+------------+------+---------+
| ./undo_1.log | UNDO LOG | lg_1       | NULL | lg_1       |    0 | 4194304 |
| ./undo_2.log | UNDO LOG | lg_1       | NULL | lg_1       |    0 | 3145728 |
| ./data_1.dat | DATAFILE | ts_1       | NULL | lg_1       |   32 |      32 |
| ./data_2.dat | DATAFILE | ts_1       | NULL | lg_1       |   48 |      48 |
+--------------+----------+------------+------+------------+------+---------+
4 rows in set (0.00 sec)
```

For more information and examples, see Section 26.3.15, “The INFORMATION_SCHEMA FILES Table”.

Indexing of columns implicitly stored on disk. For table `dt_1` as defined in the example just shown, only the `dob` and `joined` columns are stored on disk. This is because there are indexes on the `id`, `last_name`, and `first_name` columns, and so data belonging to these columns is stored in RAM. Only nonindexed columns can be held on disk; indexes and indexed column data continue to be stored in memory. This tradeoff between the use of indexes and conservation of RAM is something you must keep in mind as you design Disk Data tables.

You cannot add an index to a column that has been explicitly declared `STORAGE DISK`, without first changing its storage type to `MEMORY`; any attempt to do so fails with an error. A column which *implicitly*