```
# We created a keyspace with a replication factor of 3 so that each data will be saved on 3
# different nodes assuming that we have a data center that contains several servers so that
# our data will not be lost.


CREATE KEYSPACE meteo WITH REPLICATION = { 'class' : 'SimpleStrategy',
'replication_factor' : 3 };

USE meteo;

# Creation of table

CREATE TABLE meteoInput (
        stationID TEXT,
        horodatage TIMESTAMP,
        longitude TEXT,
        latitude TEXT,
        temperature TEXT,
        humidite TEXT,
        PRIMARY KEY (stationID, horodateage));


# We created the table (meteoInput) because it responds to all the queries requested in the
# specifications. The primary key of the table is the pair of columns (stationID, timestamp).
# We suppose that :
# - Weather stations can simultaneously data
# - A station cannot provide two measurements at the same second.


# The partition key is 'stationID', of type 'TEXT'
# The clustering key is 'timestamp', of type 'TIMESTAMP' and of format
# 'YYYY-MM-DDDTHH: MM: SSZ'
# We chose the type 'TEXT' for the other data too.


# Insertion of data

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM001', '2019-12-12T18:55:10+0000', '5.3467', '50.5795', '10C', '18%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM002', '2019-12-12T18:55:10+0000', '5.3467', '50.5791', '12C', '25%')

INSERT INTO meteoInput
```

(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM001', '2019-12-12T18:59:19+0000', '5.3467', '48.4689', '8C', '30%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM002', '2019-12-12T18:59:19+0000', '5.3467', '45.5523', '7C', '34%')

!!! Voila des informations fournies par differents station meteo dans differents temps

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM002', '2019-12-13T08:32:21+0000', '8.8722', '30.4690', '5C', '25%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM002', '2019-12-13T08:34:21+0000', '8.5738', '33.4758', '6C', '28%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM002', '2019-12-13T08:35:21+0000', '9.8749', '40.8566', '8C', '39%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM001', '2019-12-13T08:36:21+0000', '7.3456', '41.7543', '7C', '44%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM001', '2019-12-13T08:37:21+0000', '7.4802', '42.4632', '3C', '34%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM002', '2019-12-13T08:40:21+0000', '7.4854', '42.4667', '3C', '56%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM001', '2019-12-13T08:44:21+0000', '6.4568', '43.4632', '10C', '53%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM002', '2019-12-13T09:32:21+0000', '6.4468', '42.4932', '8C', '35%')

INSERT INTO meteoInput
(stationID, horodatage, longitude, latitude, temperature, humidite)
VALUES ('STM001', '2019-12-13T10:32:21+0000', '6.4694', '43.4032', '5C', '29%')

INSERT INTO meteoInput

```
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM003', '2019-12-13T10:35:21+0000', '6.4694', '43.4032', '5C', '29%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM003', '2019-12-13T10:40:21+0000', '7.4694', '45.4032', '6C', '19%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM003', '2019-12-13T10:55:21+0000', '8.4694', '42.4032', '9C', '27%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T07:52:21+0000', '6.3589', '43.4000', '7C', '45%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T08:32:21+0000', '6.4846', '45.4032', '8C', '60%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T09:55:21+0000', '7.6448', '44.4032', '14C', '31%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T10:44:21+0000', '9.4256', '46.4002', '12C', '48%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T11:32:24+0000', '9.4234', '43.4853', '6C', '22%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T11:44:25+0000', '9.4333', '45.4002', '9C', '19%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T11:50:21+0000', '9.4345', '49.4032', '13C', '18%')

INSERT INTO meteoInput
                (stationID, horodatage, longitude, latitude, temperature, humidite)
        VALUES ('STM004', '2019-12-13T11:57:21+0000', '9.4253', '47.4039', '17C', '49%')


# Selection of all measurements from station STM001
```

```
SELECT stationID,
          temperature,
          humidite
        FROM meteoInput
        WHERE stationID='STM001';

# Selection of all measurements from station STM002 with all information
SELECT *
        FROM meteoInput
        WHERE stationID='STM002';

# Selection of all measurements from station STM004 on 12/13/2019 between 8:00 a.m. and
10:00 a.m.
SELECT stationID,
          horodatage,
          temperature,
          humidite
        FROM meteoInput
        WHERE stationID = 'STM004'
          AND horodatage >= '2019-12-13T08:00:00+0000'
          AND horodatage <= '2019-12-13T10:00:00+0000';
```