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import pandas as pd
import sqlite3
import numpy as np

DELETE_SQL_PATH = "python_scripts/DB/sql/delete.sql"
# DELETE_SQL_PATH = "../DB/sql/delete.sql"
SQL_PATH = "python_scripts/DB/sql/sleep_alert.sql"
DB_PATH = "db/musashino.sqlite"


def sleep_alert(participantId, start, end, args):
    cal_start = np.array(start, dtype='datetime64') -
np.timedelta64(30,'D')

    conn = sqlite3.connect(DB_PATH)
    loop_n = int(args.wakeup_int/0.5)
    loop_sql = ""
    for i in range(1,loop_n):
        loop_sql += "* (LEAD (Sleep < 0.5, {}) OVER (ORDER BY
Timestamp))".format(i)
    get_input_sql = open(SQL_PATH).read().format(loop_sql,
                                                 participantId,
                                                 cal_start,
                                                 end,
                                                 args.wakeup_dif)
    result = pd.read_sql_query(get_input_sql, conn)
    result = result.query("date >= @start")
    result = result[["date", "participantId", "Sleep_Alert"]]
    result["date"] = pd.to_datetime(result["date"])

    # Delete
    end = np.array(end, dtype='datetime64') + np.timedelta64(1,'D')
    DELETE_SQL = open(DELETE_SQL_PATH).read().format("SleepAlert",
participantId, "date", start, end)
    cur = conn.cursor()
    cur.executescript(DELETE_SQL)
    # Append
    result = result.fillna(0)
    result.to_sql("SleepAlert", conn, if_exists="append", index=False)
    return result
```