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CREATE OR REPLACE FUNCTION public.measurement_insert(
    city_id integer,
    logdate timestamp with time zone,
    peaktemp integer,
    unitsales integer)
    RETURNS SETOF measurement
    LANGUAGE 'plpgsql'
    RETURNS NULL ON NULL INPUT
AS $BODY$
BEGIN
    RETURN QUERY
        INSERT INTO measurement(city_id, logdate, peaktemp, unitsales)
        VALUES(city_id, logdate, peaktemp, unitsales)
        RETURNING *;

EXCEPTION
    WHEN check_violation THEN
        EXECUTE
            'CREATE TABLE measurement_y' || to_char(logdate, 'YYYYmMM') ||
            ' PARTITION OF measurement FOR VALUES FROM ('' ||
            date_trunc('month', logdate) ||
            '') TO ('' ||
            (date_trunc('month', logdate) + '1month'::interval) ||
            '')';

    RETURN QUERY
        INSERT INTO measurement(city_id, logdate, peaktemp, unitsales)
        VALUES(city_id, logdate, peaktemp, unitsales) RETURNING *;
END;
$BODY$;

```