CORRECTION   **Open Access**

Correction to: Development of a Web GIS for small-scale detection and analysis of COVID-19 (SARS-CoV-2) cases based on volunteered geographic information for the city of Cologne, Germany, in July/August 2020

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Correction to: Int J Health Geogr (2021) 20:40
https://doi.org/10.1186/s12942-021-00290-0

In this article [1], the wrong figures appeared as Listings 1 to 4; the Listings 1, 2, 3 and 4 should have been appeared as shown.

The in-text reference citations has been arranged in numerical ascending order and the corresponding list has been arranged accordingly.

```
--Determine neighborhood
--of selected  house perimeter
CREATE OR REPLACE FUNCTION increaseCounter()
RETURNS TRIGGER AS
$BODY$
BEGIN
    UPDATE nabu.koeln b
SET counter = counter + 1
    WHERE ST_WITHIN(new.geom, b.geom) AND new.visited = true;
RETURN new;
END;
$BODY$
language plpgsql;
--Trigger after Update of house perimeter
DROP TRIGGER IF EXISTS increase
  ON nabu.hu_koeln;
CREATE TRIGGER increase
    AFTER UPDATE ON nabu.hu_koeln
    FOR EACH ROW
    EXECUTE PROCEDURE increaseCounter();
```

Listing 1 Function to determine the location of a house perimeter in an urban area

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The original article can be found online at https://doi.org/10.1186/s12942-021-00295-9.

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```
CREATE OR REPLACE FUNCTION randomize(i bigint)
RETURNS bigint AS $$
BEGIN
RETURN(SELECT CAST(CAST(floor(random() * (99 - 10 + 1)) + 10 AS
text)||CAST(i AS text)||CAST(floor(random() * (99 - 10 + 1)) + 10 AS text) AS bigint));
END;
$$
LANGUAGE plpgsql;
```

Listing 2 Function to generate random ID in Postgres

```
SELECT a.id, a.geom, a.date as datum, a.edited_at, b.pseudo, b.created, b.date,
b.counter, b.edited
FROM nabu.hu_koeln a JOIN nabu.koeln_user b ON a.id = ANY(array(SELECT
substring(unnest(edited::varchar[]) FROM 3 FOR length(unnest(edited::varchar[]))-
4)::bigint
FROM nabu.koeln_user c
WHERE b.edited = c.edited AND b.edited IS NOT NULL));
```

Listing 3 Decryption of the random ID and assignment of the original ID to identify the edited house perimeters of a user

```
export const getChartDistrict = (request: any, response: any) => {
  const stt_name = request.query.stt_name;
  pool.query(`SELECT round(sum(visited::int::numeric(1,0))*100/count(id), 5) as
besucht,
  100-(round(sum(visited::int::numeric(1,0))*100/count(id), 5)) as unbesucht
  FROM nabu.hu_koeln WHERE stt_name = $1`, [stt_name], (error, results) => {
    if (error) {
      throw error
    }
    response.status(200).send(results.rows);
  })
};
```

Listing 4 Code snippet for the SQL query in Node via a REST interface

Reference

1. Schmidt F, Dröge-Rothaar A, Rienow A. Development of a Web GIS for small-scale detection and analysis of COVID-19 (SARS-CoV-2) cases based on volunteered geographic information for the city of Cologne, Germany, in July/August 2020. Int J Health Geogr. 2021;20:40. https://doi.org/10.1186/s12942-021-00290-0.