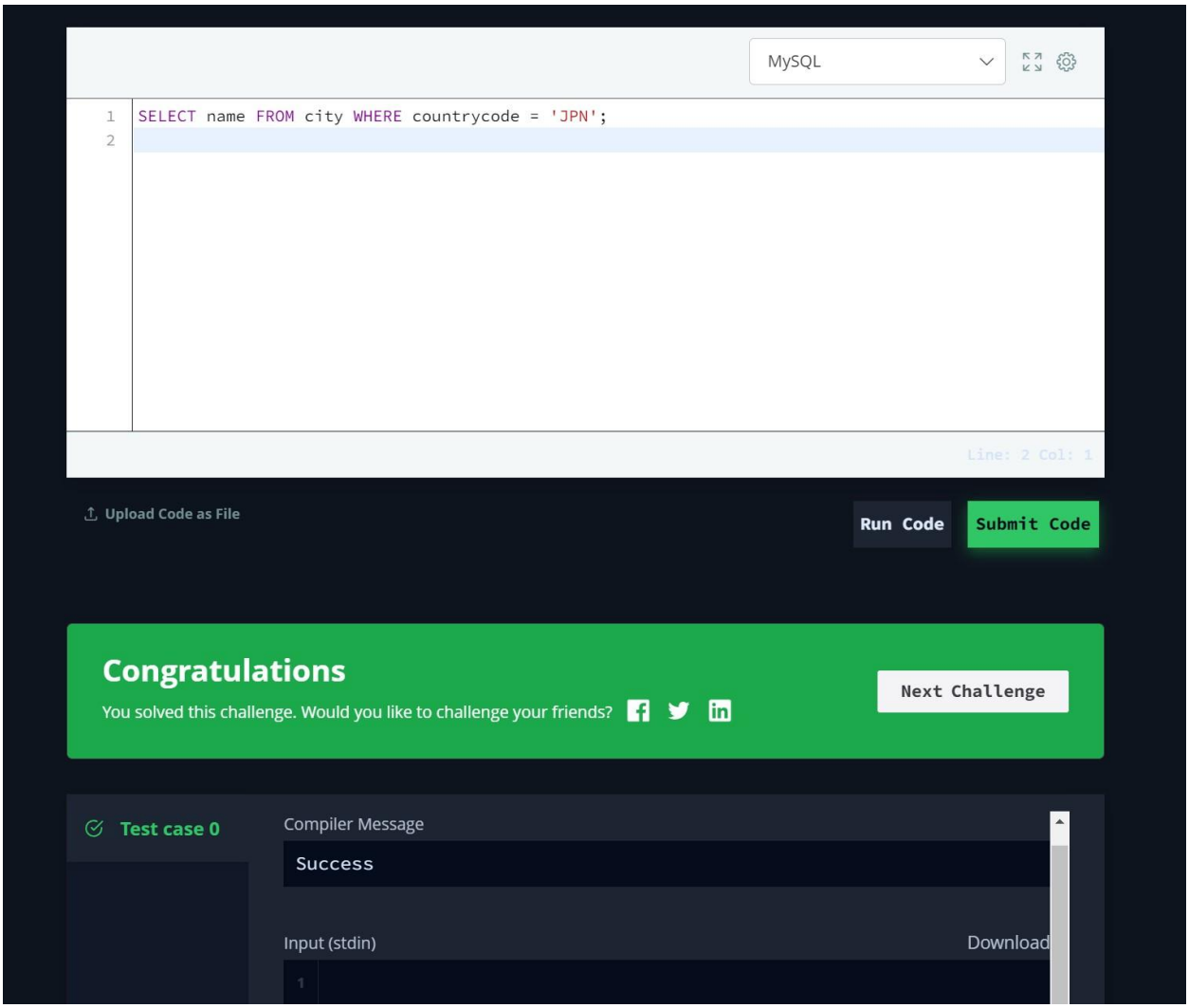
Database Assignment 2

1. [Japanese Cities' Names]

   SQL Script Solution:

   ```
   SELECT name FROM city WHERE countrycode = 'JPN';
   ```

   Output Screenshot:

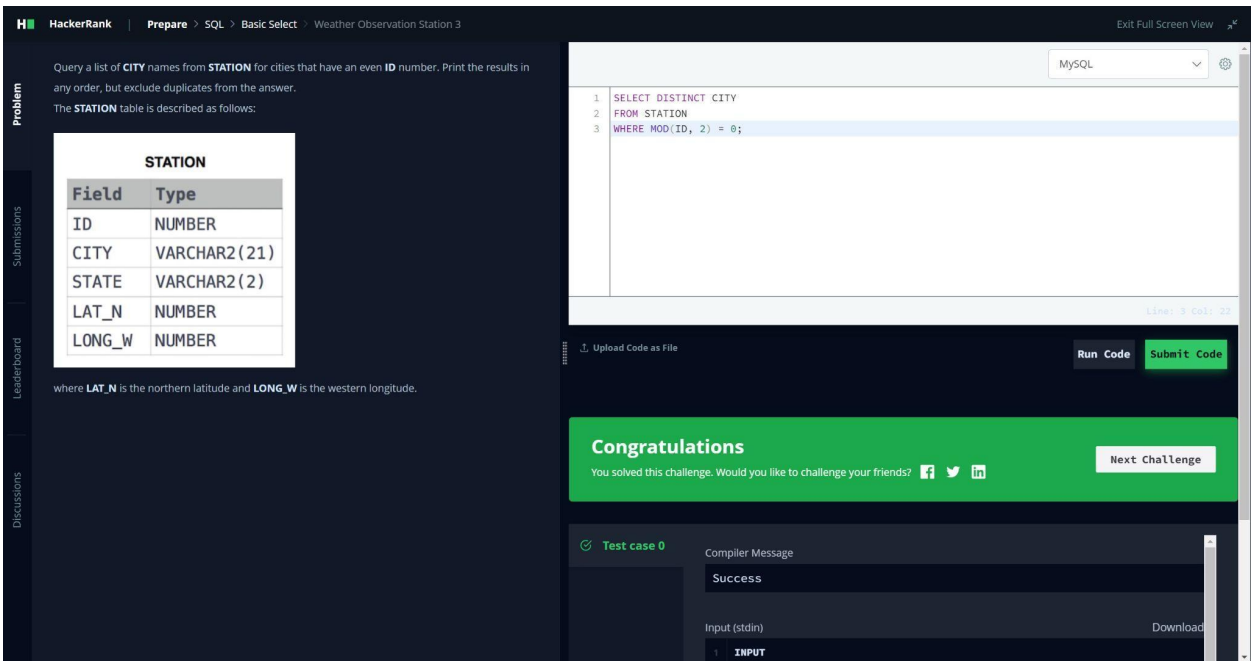


2. [Weather Observation Station 3]

SQL Script Solution:

```
SELECT DISTINCT CITY
FROM STATION
WHERE MOD(ID, 2) = 0;
```

Output Screenshot:



3. [Weather Observation Station 5]

SQL Script Solution:

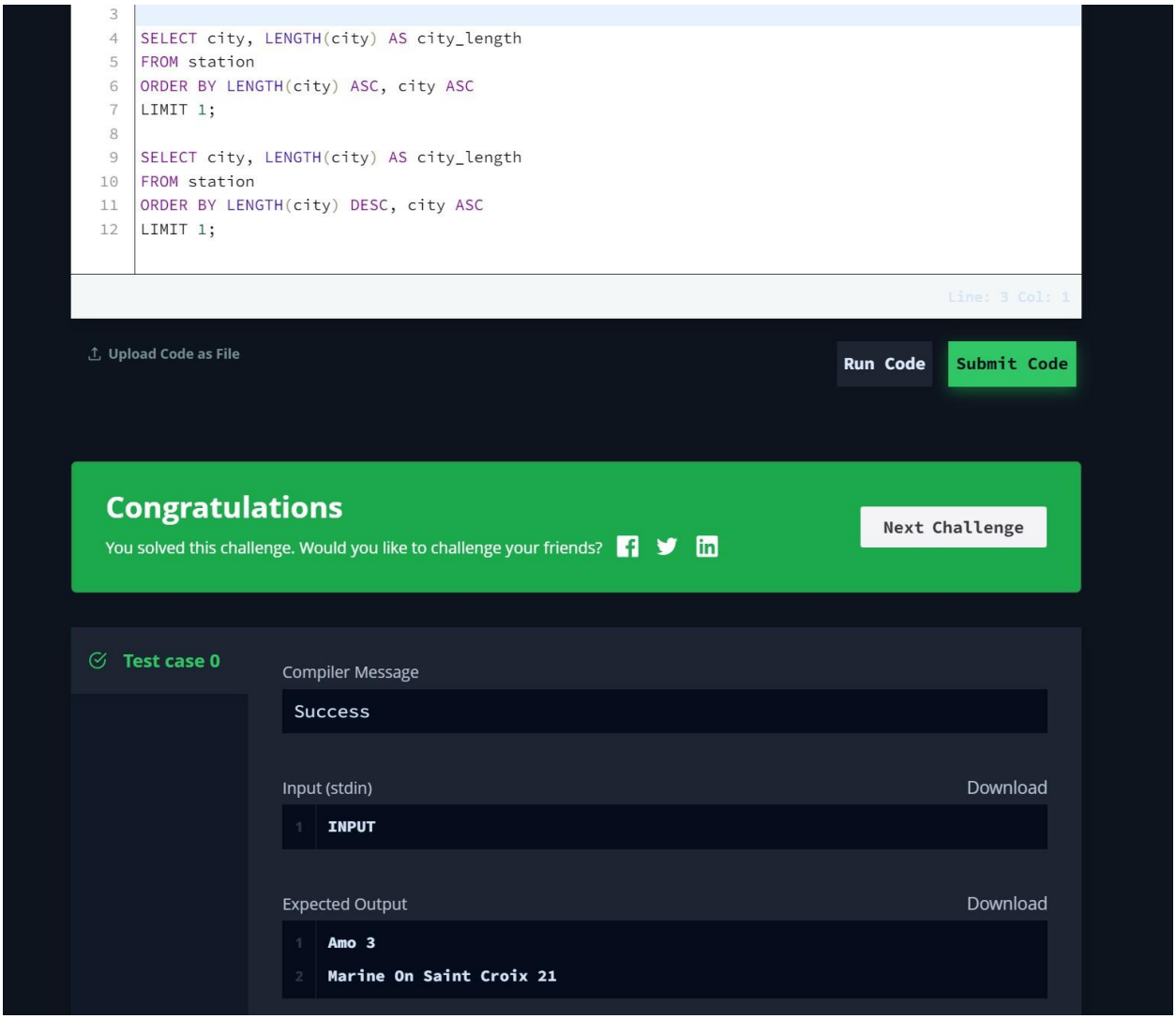
```
// for shortest city

SELECT city, LENGTH(city) AS city_length
FROM station
ORDER BY LENGTH(city) ASC, city ASC
LIMIT 1;
```

// for longest city

```
SELECT city, LENGTH(city) AS city_length
FROM station
ORDER BY LENGTH(city) DESC, city ASC
LIMIT 1;
```

Output Screenshot:

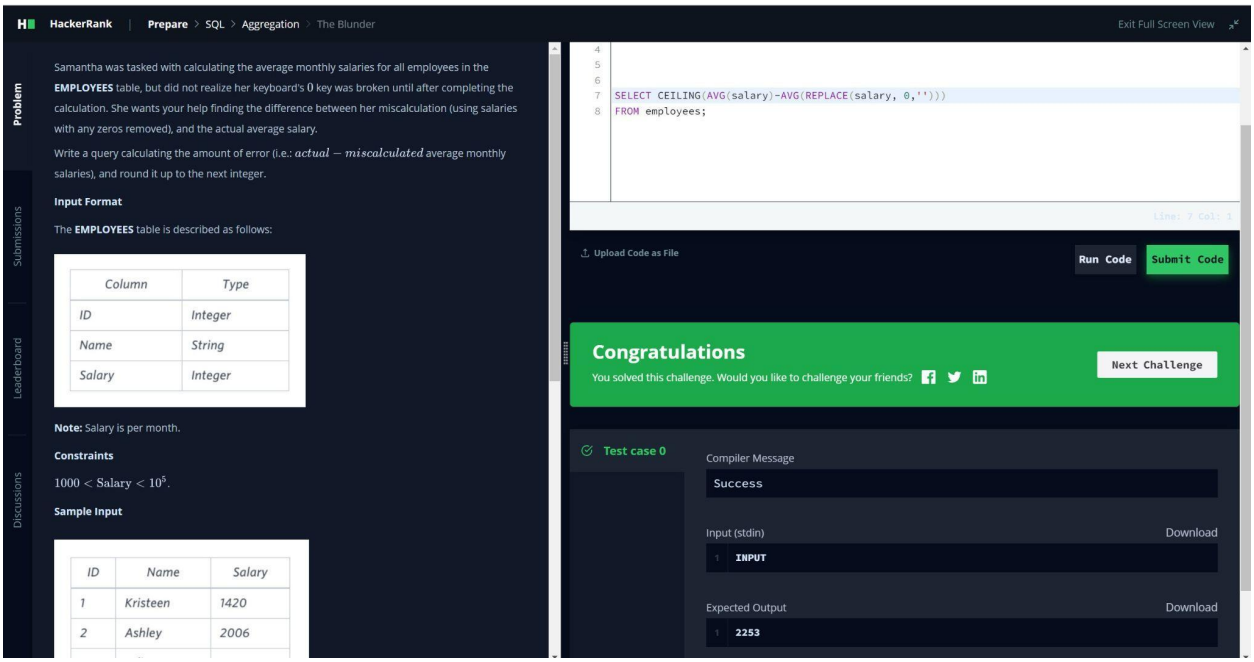


4. [The Blunder]

SQL Script Solution:

```
SELECT CEILING(AVG(salary)-AVG(REPLACE(salary, 0,'')))
FROM employees;
```

Output Screenshot:



5. [Weather Observation Station 18]

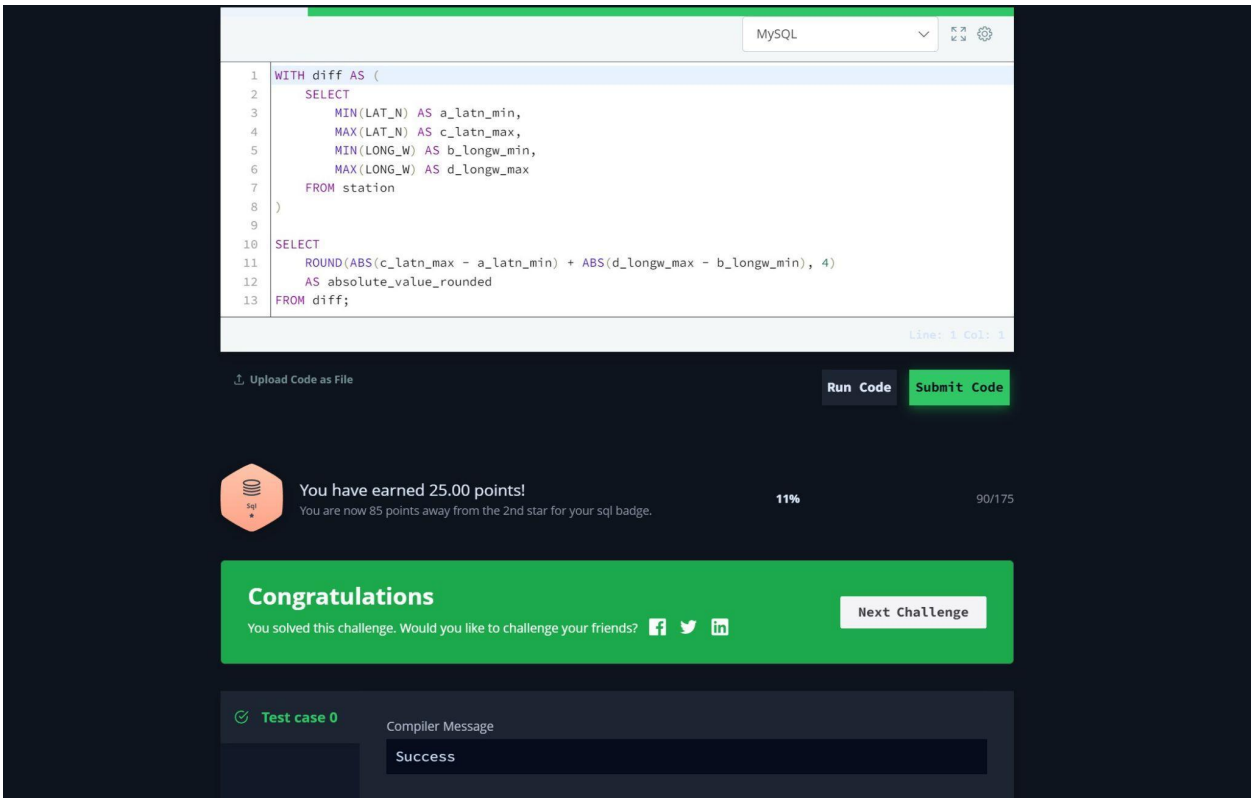
SQL Script Solution:

```
WITH diff AS (
   SELECT
      MIN(LAT_N) AS a_latn_min,
      MAX(LAT_N) AS c_latn_max,
      MIN(LONG_W) AS b_longw_min,
      MAX(LONG_W) AS d_longw_max
```

```
    FROM station
)

SELECT
    ROUND(
        ABS(c_latn_max - a_latn_min)
            +
        ABS(d_longw_max - b_longw_min),
        4)
    AS absolute_value_rounded
    FROM diff;
```

Output Screenshot:

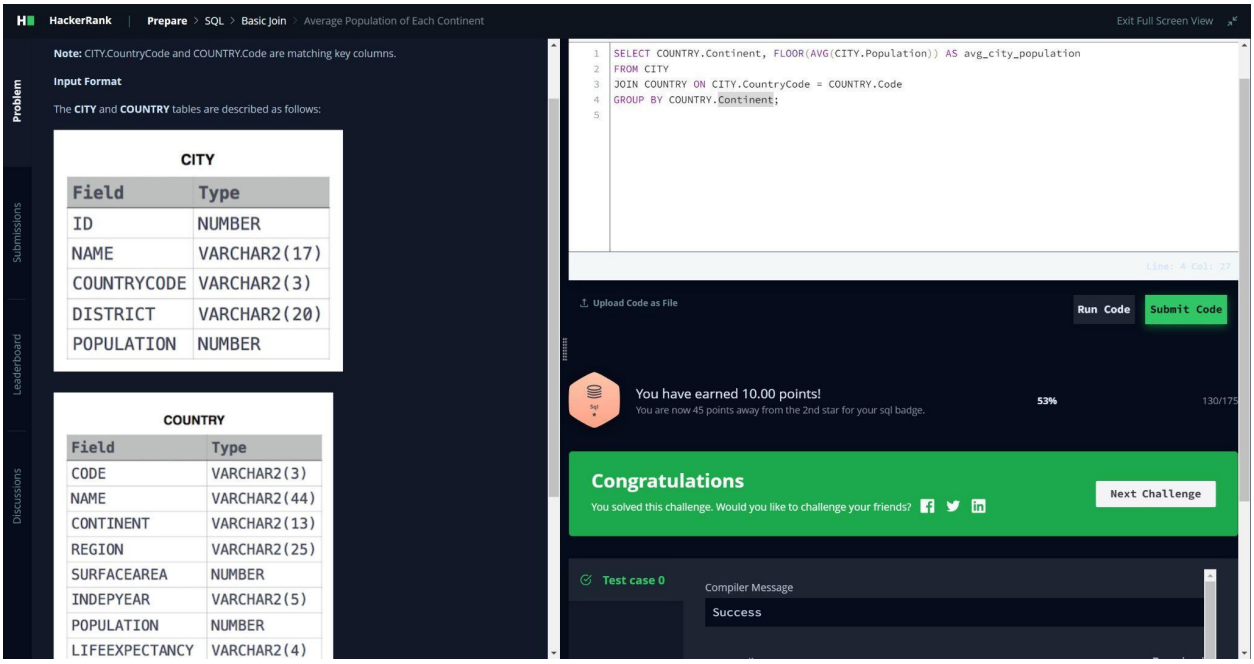


6. Average Population of Each Continent

SQL Script Solution:

```
SELECT COUNTRY.Continent, FLOOR(AVG(CITY.Population))
AS avg_city_population
FROM CITY
JOIN COUNTRY ON CITY.CountryCode = COUNTRY.Code
GROUP BY COUNTRY.Continent;
```

Output Screenshot:



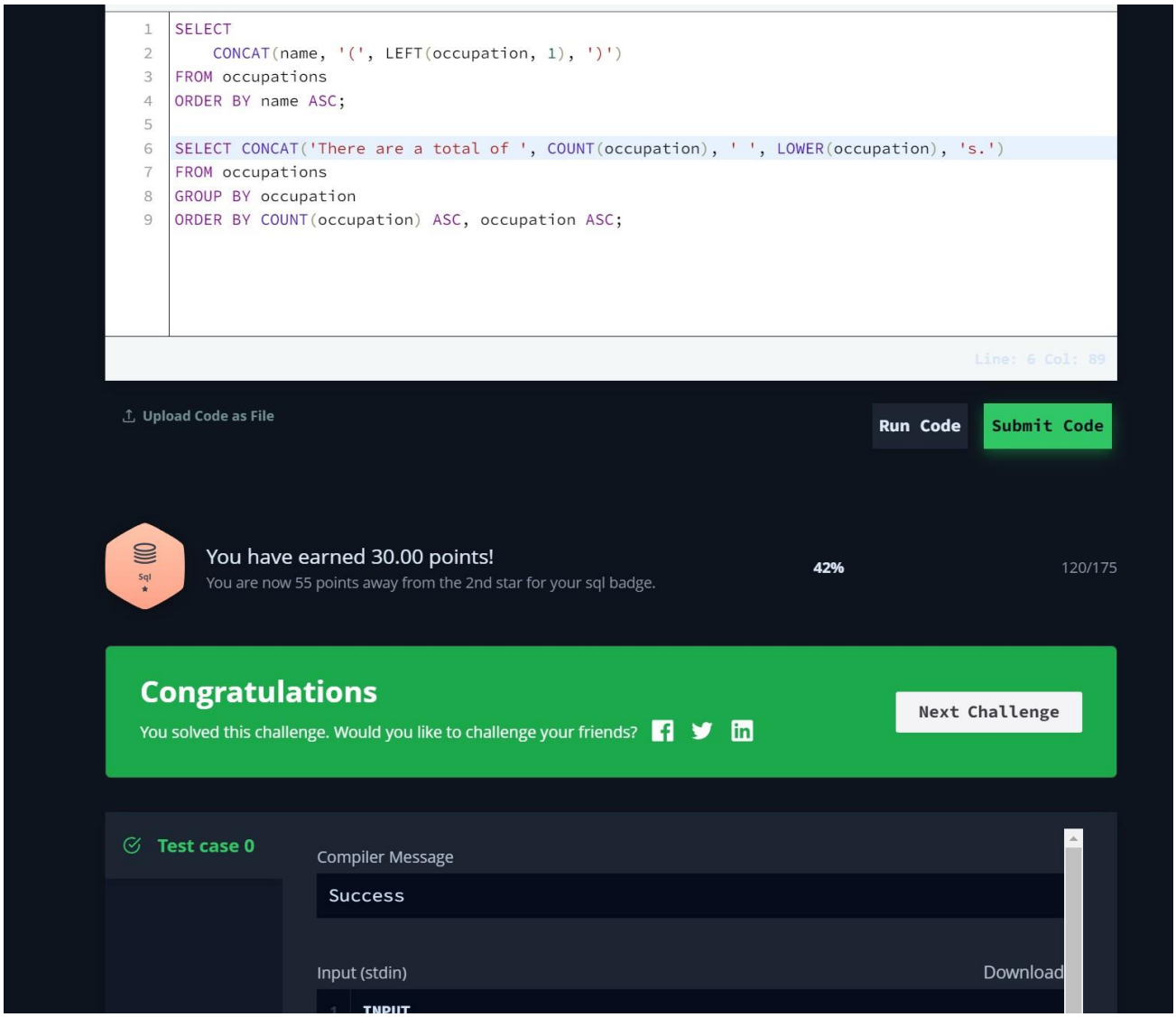
7. The PADS

SQL Script Solution:

```
SELECT
   CONCAT(name, '(', LEFT(occupation, 1), ')')
FROM occupations
ORDER BY name ASC;
```

```sql
SELECT
    CONCAT('There are a total of ', COUNT(occupation), ' ',
    LOWER(occupation), 's.')
FROM occupations
GROUP BY occupation
ORDER BY COUNT(occupation) ASC, occupation ASC;
```

Output Screenshot:

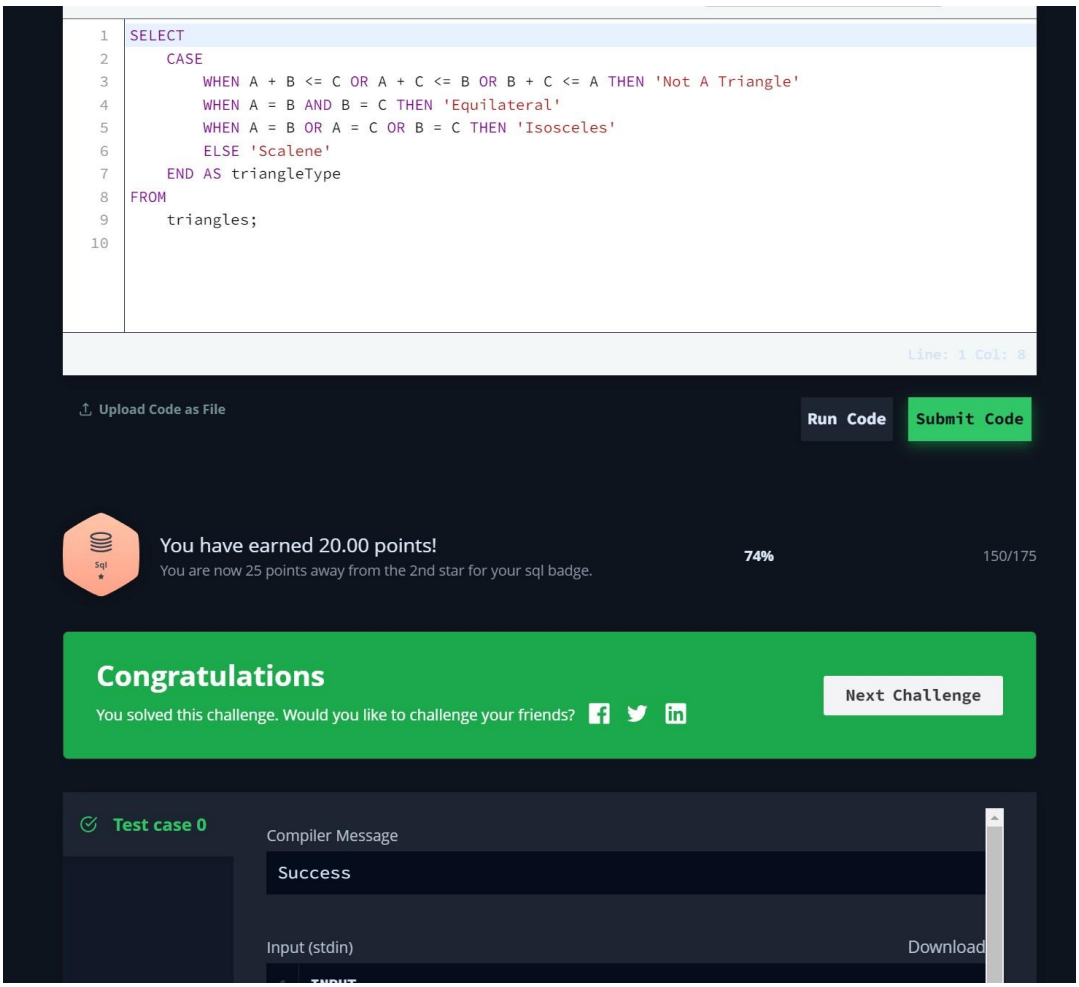


8. [Type of Triangle]

SQL Script Solution:

```
SELECT
   CASE
      WHEN A + B <= C OR A + C <= B OR B + C <= A THEN 'Not A
Triangle'
      WHEN A = B AND B = C THEN 'Equilateral'
      WHEN A = B OR A = C OR B = C THEN 'Isosceles'
      ELSE 'Scalene'
   END AS triangleType
FROM
   triangles;
```

Output Screenshot:

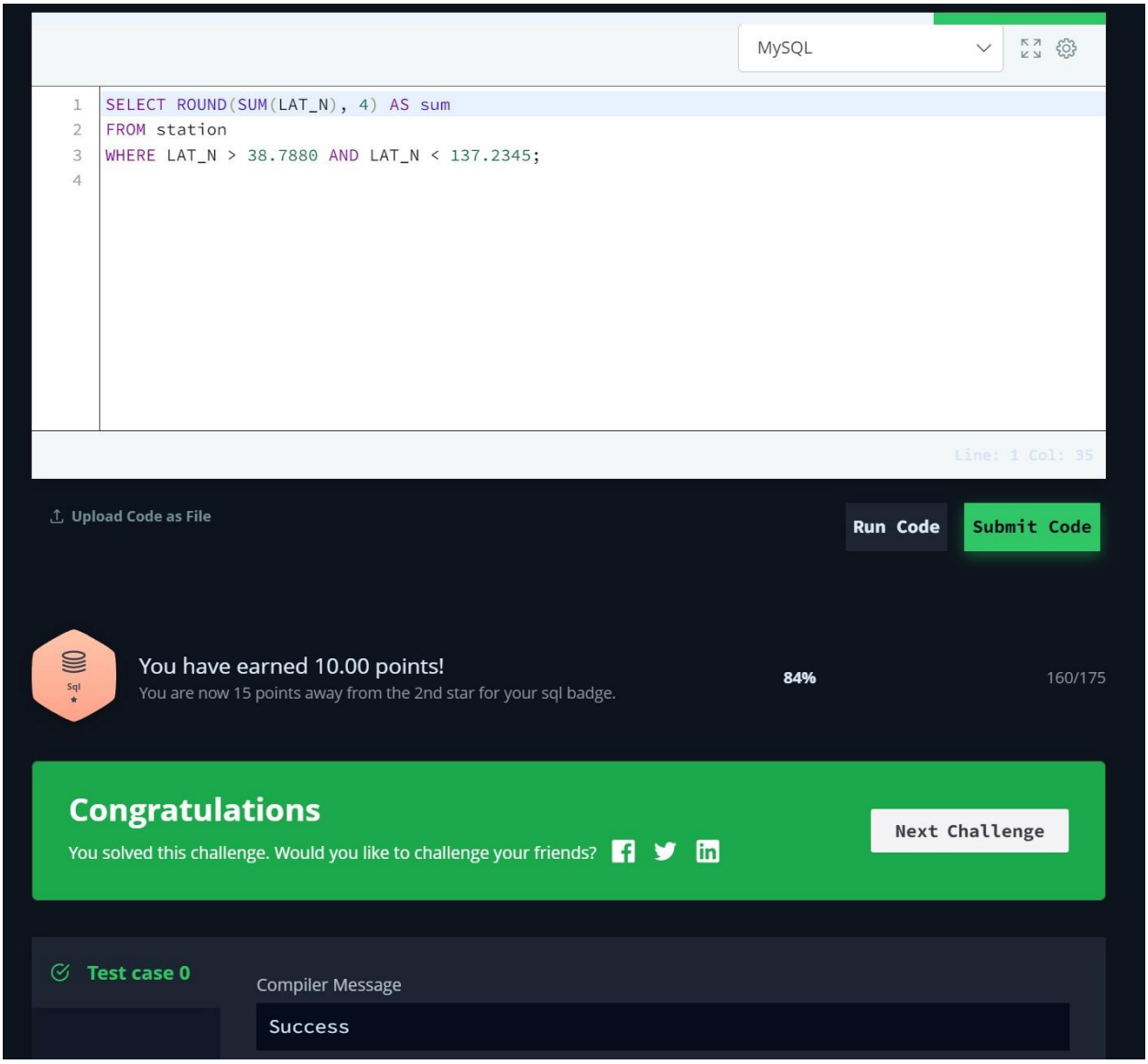


9. [Weather Observation Station 13]

SQL Script Solution:

```
SELECT ROUND(SUM(LAT_N), 4) AS sum
FROM station
WHERE LAT_N > 38.7880 AND LAT_N < 137.2345;
```

Output Screenshot:



10. The Report

SQL Script Solution:

```
SELECT
   CASE
      WHEN grade >= 8 THEN name
      ELSE 'NULL'
   END AS name, grade, marks
FROM Students s
JOIN Grades g ON s.marks BETWEEN g.min_mark AND
g.max_mark
ORDER BY grade desc, name asc, marks asc;
```

Output Screenshot: