Problem Assignment: Largest Rectangle in Matrix via Fast API

Problem Statement:

You are given a matrix of integers. Your task is to find the largest rectangle formed by similar numbers in the matrix. A rectangle is defined by selecting a group of adjacent cells that contain the same number. The rectangle should have the maximum area among all rectangles formed by similar numbers.
Create a Fast API service that accepts the matrix on a POST API and returns the largest rectangle's area and the number itself.

Write a Python function to solve this problem.

Function Signature:

```
def largest_rectangle(matrix: List[List[int]]) -> tuple:
    """
    :param matrix: A 2D matrix of integers (1 <= len(matrix),
len(matrix[0]) <= 100)
    :return: The area of the largest rectangle formed by similar numbers
    """
    # Your code here

matrix_example = [
    [1, 1, 1, 0, 1, -9],
    [1, 1, 1, 1, 2, -9],
    [1, 1, 1, 1, 2, -9],
    [1, 0, 0, 0, 5, -9],
    [5, 0, 0, 0, 5],
]

assert largest_rectangle(matrix_example) == (1, 8)
```

Note:

- In the given example, the largest rectangle is formed by the number 1, and its area is 8 (2 rows × 4 columns).

The function should return the area of the largest rectangle formed by any similar numbers in the matrix along with the number itself.

Problem Constraints:

- The matrix will only contain integers.
- The matrix can have at most 100 rows and 100 columns.
- You can assume that the matrix will have at least one element.
- Your solution should be efficient and handle large matrices.

Fast API Service Constraints:

- It should be a POST API which accepts a `matrix` as a key in JSON format.
- Log all requests and responses in the DB which is connected to Fast API service and its turnaround time for analysis.