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1 // Pulkrit Agarwal 19323939
2 // Assignment-3 (Short Experiment with Serverless)
3 let functionCallTimeArray = [];
4 let counter = 0;
5 let sum = 0;
6
7 exports.handler = async (event) => {
8     let ThisInvocation, TimeSinceLast;
9     let TotalInvocationsOnThisContainer, AverageGapBetweenInvocations;
10    let responseBody, response;
11    let totalGap = 0;
12    let functionCall = new Date().toISOString();
13
14    let cmd;
15    if (event.queryStringParameters && event.queryStringParameters.cmd) {
16        cmd = event.queryStringParameters.cmd;
17    }
18
19    ThisInvocation = `${functionCall}`;
20    functionCallTimeArray[counter] = functionCall; // Storing function calltime
21
22    if (counter == 0) {
23        TimeSinceLast = 0; // Function called the first Time
24    } else {
25        //Time gap between two consecutive function calls in milliseconds
26        totalGap = (Date.parse(functionCallTimeArray[counter]) -
27Date.parse(functionCallTimeArray[counter - 1]));
28        TimeSinceLast = `${(totalGap/1000).toFixed(2)}`;
29        sum = sum + totalGap; // Sum of all Total Gaps
30    }
31    // Function call Count, counter + 1 because initialized from 0
32    TotalInvocationsOnThisContainer = `${counter + 1}`;
33
34    if (counter == 0){
35        // Function called the first Time. Therefore Average is ZERO
36        AverageGapBetweenInvocations = 0;
37    } else {
38        AverageGapBetweenInvocations = `${((sum/(counter+1))/1000).toFixed(2)}`;
39    }
40
41    if (cmd == 'RESET') { // All global variables reset to ZERO
42        functionCallTimeArray = [];
43        counter = 0;
44        sum = 0;
45        responseBody = { ThisInvocation };
46    } else {
47        counter = counter + 1;
48        responseBody = { ThisInvocation, TimeSinceLast,
49            TotalInvocationsOnThisContainer, AverageGapBetweenInvocations };
50    }
51
52    response = { body: JSON.stringify(responseBody) };
53    return response;
54 };

```