Quiz 3

Due: October 4th, 2021, 7:25 WIB

Task

Prevously on class, we discussed how to count frequency response table on page 20-22th of lecture 6. In this quiz you are asked to solve the same problem but with recursion. For the reference code of the original problem, please see the appendix. You are free to design the function interface (parameter) as you will.

Appendix

```c
// Fig. 6.7: fig06_07.c
// Analyzing a student poll.
#include <stdio.h>
#define RESPONSES_SIZE 40 // define array sizes
#define FREQUENCY_SIZE 11
// function main begins program execution
int main(void)
{
    // initialize frequency counters to 0
    int frequency[FREQUENCY_SIZE] = {0};
    // place the survey responses in the responses array
    int responses[RESPONSES_SIZE] = {1, 2, 6, 4, 8, 5, 9, 7, 8, 10,
        1, 6, 3, 8, 6, 10, 3, 8, 2, 7, 6, 5, 7, 6, 8, 6, 7, 5, 6, 6,
        5, 6, 7, 5, 6, 4, 8, 6, 8, 10};
    // for each answer, select value of an element of array responses
    // and use that value as an index in array frequency to
    // determine element to increment
    for (size_t answer = 0; answer < RESPONSES_SIZE; ++answer) {
        ++frequency[responses[answer]];
    }
    // display results
    printf("%s%17s\n", "Rating", "Frequency");
    // output the frequencies in a tabular format
    for (size_t rating = 1; rating < FREQUENCY_SIZE; ++rating) {
        printf("%6d%17d\n", rating, frequency[rating]);
    }
}
```