CAD-IT Code Test IoT Application Engineer

Make three apps using any programming languages (JavaScript/Python/Go/C/C++) with the following function

1. Salary Conversion (1 program file)
    - Fetch data from http://jsonplaceholder.typicode.com/users
    - Join the fetched data with salary data from JSON file by using id
    - Add one field to represent salary in USD (salary in JSON file is in IDR) using currency converter (such as https://free.currencyconverterapi.com). Try to be efficient with the resource by not making a get request to endpoint after every conversion
    - Output from the endpoint should be: id, name, username, email, address, phone, salary in IDR, and salary in USD
2. Sensor Aggregation (1 program file)
    - Aggregate sensor data from JSON file on roomArea and by day
    - Output the endpoint should be: min, max, median, and avg from sensors value (temperature, humidity)
3. Sensor Streaming (2 program file)
    - Make one program that streams sensor data (Temperature and Humidity) in at least five different rooms with 2 minutes push rate. This streaming data should be logged in one log file (in .txt, .csv, or .json format) . The program should be continuously running until the user stops the process.
    - Make one program that reads logfiles from point 1 and displays min, max, median, and avg from sensors value (Temperature and Humidity) every 15 minutes streamed for each room and average sensors value from all rooms. The program should be continuously running until the user stops the process
    - Data visualization is point plus

Things to note:

1. Put the main logic of each problem in a different file using this format:
   problem[task number].[extension]

   Example :
   For Task 1: **problem1.js** or **problem1.py** or **problem1.cpp**, etc.
2. Unit testing
3. Modules structure
4. Quality of code

You are given time to work within two days from the email sent and confirmed by you with replying to the email. Send back the tasks using *zip format* or by using GitHub.