Cloud Developer Home Assessment

Hiring Manager: Birender Panwar

Homework Case study - 2

Focus area

Problem solving and programming skills

Problem statement

SIM data is uploaded into the specific file folder. Each SIM data file contains header section, input variable section and SIM record section.

SIM record sections contains column header and records for each SIM

Implement the service that periodically scans the file system (specific file folder) and check the presence of any new input data file.

Parse the content of the file, read each SIM record and store it into Database. If the file is processed successfully then create a new file under folder /outputs/ with filename as <filename>.ok else <filename>.nok. Output filename shall be same as input filename only extension is different

Scanning folder name: /inputs/ and

Output folder name: /outputs/

Example input file is supplied: sim_data1.txt

Output shall be under /outputs/ (either sim_data1.ok or sim_data2.nok)

Implementation shall consider the following requirements:

- Input file data understanding:
    - Quantity: number of SIM records shall shall be present in the file
    - Var_In_List: IMSI , the starting value of the IMSI
    - Maximum IMSI value that shall be present in the file shall be within the start and end IMSI range. End IMSI value can be calculated using start imsi and quantity
- Frequency of scanning the inputs folder for any new file is 30 seconds
- Persist each SIM record into SQL database of your choice
- File processing shall failed if:
    - SIM record (column name IMSI) already exists in Database
    - If duplicate SIM found in the same file

Ask from Candidates?

- Approach document explaining the implementation details
- Implement microservice using spring-boot framework or spring batch or any tool/framework of your choice
- Use SQL DB of your choice. If DB schema is changed how the service will handle the schema changes
- File processing shall be within few mins
- Submit working code