

COMPETENCY ASSESSMENT (CA)

Python Developer

Role:

The **Python Programmer** is in charge developing programs using different frameworks of python like DRF, Fast API, Core Python.

Objective:

Check the programming skills of user to check – knowledge of regular expression (for validation), use of serializers, mixins, signals, middleware, management commands

Case:

Samta intends to develop a multi-tenant analytics SAS platform using Django Rest Framework for retail companies.

Scope

- Data Ingestion:
 - Platform should be able to load data from different sources (for this exercise from csv source) in the tenant model.
 - It should be able to refresh data periodically (once a day) in the model.
 - Use SalesData_1.csv for first time load and SalesData_2.csv for incremental load.
- Data Cleaning & Transformation:
 - Perform following cleaning operations:
 - Remove all records where either of the filed in record in null.
 - Remove all records where total amount is zero on less then zero.
 - Aggregate the Sales-Amount and Quantity on sale Month-Year for each product
 - Add the transformed data in another table.
- APIs for Data visualization
 - Create restful APIs to
 - Find the top 3 months having maximum average sales.
 - Find sales trends of each product. API payload should have product id, start month/year, end month/year for which trend must be displayed. API response should have month wise sale for product.
 - Find customer have maximum sales per month for given period.
- No need to create any front-end, use postman to test all the APIs.

How are we going to evaluate?

- Completeness of program.
- Documentations.
- README
- Use of PEP8 guidelines.
- Quality of code.