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Product Structure Documentation

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# # 4AM Automated Reporting (Dev Version)

This document serves as my core area for notes, and information relating to the structure and functionality of the application.

# # ToDo

1. Setup Folder Structure

2. Setup Email File Extraction

3. Develop scripts to generate Reports

4. Create a web interface for uploading and downloading reports.

5. Test and Verify Generated Reporting Data

6. Create a database to store generated data.

7. Develop script to load data into QuickBooks

8. Test and Verify data loaded in QuickBooks

9. Document Everything

## ## Task Breakdown

This section will breakdown the above 8 tasks into their core components and deliverables.

### ### Setup Folder Structure

For now, the tentative folder structure is as follows:

Root

├── controller.py

├── documents

│ ├── Generated\_Reports

│ │ ├── Cafe de Paris

│ │ │ └── 2024

│ │ ├── QP Bistro

│ │ │ └── 2024

│ │ │ └── January

│ │ │ └── 31st\_Feb\_to\_6th\_Jan\_Report.xlsx

│ │ ├── Tides

│ │ │ └── 2024

│ │ └── The Cliff

│ │ └── 2024

│ └── Upload

│ ├── Cafe de Paris

│ │ ├── DD\_MM\_YYYY\_Sales.csv

│ │ └── DD\_MM\_YYYY\_Payments.csv

│ ├── QP Bistro

│ ├── Tides

│ └── The Cliff

└── scripts

└── Report Templates

├── CafeDeParis\_Sales\_Report\_Template.xlsx

├── Cliff\_Sales\_Report\_Template.xlsx

├── QPBistro\_Sales\_Report\_Template.xlsx

└── Tides\_Sales\_Report\_Template.xlsx

### ### Setup Email File Extraction

A script should be created to do the following:

- Be registered to a specific email address

- Locate email containing most recent reports

- Download the attached excel files

- Place the files into their correct folders, doing any renaming as necessary.

### ### Develop Scripts to Generate Reports

Upon retrieving the Sales and Billing reports from the emails, and them being placed in their correct folder, the script should then do the following:

1. For each company, read the data from the latest Sales and Billing excel spreadsheets.

2. Run calculations and store the following information:

- Total US and BBD spent by Payment Type (Visa, Master, Prepaid, Cash, etc.)

- Total US and BBD spent by Payment Type by Meal Type (Breakfast, Lunch, Dinner).

- Total BBD spent by sub-category by Meal Type (non-alcoholic, wine, water, food, etc.) by Breakfast, Lunch and Dinner

- The number of guests by Meal Type (Breakfast, Lunch, Dinner)

- Service Charge, VAT, Government Levy, Deposit

3. This stored information should then be written to a spreadsheet following the restaurant's respective Report Template.

4. Store data in a database designed for easy querying.

5. Create the rolling 8-week report.

6. Export the data to their QuickBooks Format.

### ### Create Web Interface

The web interface should be a simple website designed to do the following:

- Allow users to manually upload Sales and Payments files for a restaurant.

- Download the generated reports.

- View and Filter, all generated Reports.

- When the database is designed, view the 8-week running total.

### ### Test and Verify Generated Reporting Data

This will involve sending the generated data back to the company for review and comparison with a previously manually tabulated one to ensure data accuracy and integrity.

Any necessary Revisions will then take place in this phase.

### ### Create Database

At this point, a database will be created designed to store a copy of the information placed within each Generated Report File. This is to provide easy access without having to reopen each file, when performing calculations like the 8-week running total.

The database will be structured as follows:

### #### Tables

- QP Bistro

- Cafe De Paris

- Tides

- The Cliff

### #### Columns

- ID

- Restaurant

- Date

- Total\_Amount

- Amount\_Spent\_By\_Visa

- Amount\_Spent\_By\_Master

- Amount\_Spent\_By\_Prepaid

- Amount\_Spent\_By\_Cash

- Amount\_Spent\_By\_Other

- Total\_Amount\_Spent\_By\_Meal\_Type (Breakfast, Lunch, Dinner)

- Amount\_Spent\_By\_Breakfast

- Amount\_Spent\_By\_Lunch

- Amount\_Spent\_By\_Dinner

- Total\_Number\_Of\_Guests

- Number\_Of\_Breakfast\_Guests

- Number\_Of\_Lunch\_Guests

- Number\_Of\_Dinner\_Guests

- Total\_Amount\_Spent\_By\_Sub\_Meal\_Type

- Amount\_Spent\_By\_Non\_Alcoholic\_At\_Breakfast

- Amount\_Spent\_By\_Non\_Alcoholic\_At\_Lunch

- Amount\_Spent\_By\_Non\_Alcoholic\_At\_Dinner

- Amount\_Spent\_By\_Wine\_At\_Breakfast

- Amount\_Spent\_By\_Wine\_At\_Lunch

- Amount\_Spent\_By\_Wine\_At\_Dinner

- Amount\_Spent\_By\_Water\_At\_Breakfast

- Amount\_Spent\_By\_Water\_At\_Lunch

- Amount\_Spent\_By\_Water\_At\_Dinner

- Amount\_Spent\_By\_Food\_At\_Breakfast

- Amount\_Spent\_By\_Food\_At\_Lunch

- Amount\_Spent\_By\_Food\_At\_Dinner

- Total\_Service\_Charge

- Total\_VAT\_Cost

- Total\_Government\_Levy

- Total\_Deposit

### ### Develop QuickBooks Script

This script will be responsible for loading the generated report data into QuickBooks by Account Number.

More Information Pending

### ### Test and Verify Data Loaded in QuickBooks

More Information Pending

### ### Document Everything.

DOCUMENT IT ALL!