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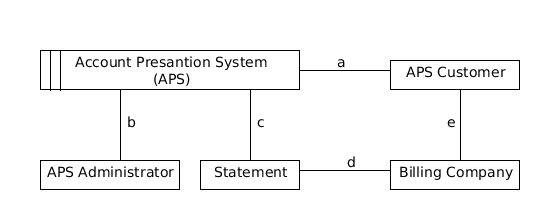
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**PROBLEM CONTEXT UNDERSTANDING.**

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The APS Administrator, APS Customer, Statement, and Billing Company represent the physical domains (the problem world) that the APS is targeted for. Each relationship between a given domain and the APS is crucial in the derivation of the APS specification. Below is high level description of the relationships identified.

**A. Customer and the APS**

* A customer has to sign up/register with the APS.
* A customer performs configuration of their statement viewing.
* A customer can view their statements.

**B. Administrator and the APS**

* An administrator schedules the APS for scraping.
* An Administrator resolves APS errors.

**C. APS and a Statement**

* The APS retrieves account statement data via a scraper.
* The APS generates a statement.

**D. Statement and the Billing Company**

* A statement's data originates from a billing company.

**E. Customer and the Billing Company**

* A customer has an account with a billing company.

**High LEVEL USER STORIES.**

# Sign up User Story

**As a:** Person interested in the APS.

**I want:** to Sign up with the APS.

**So that:** I can become an APS Customer.

## Sign up Specification

**GIVEN:** The APS is functional.

**AND:** The Person has provided at least a future Username and a password.

**AND:** The Person interested in the APS is not yet a Customer of the APS.

**WHEN:** a Person requests Sign up on the APS.

**THEN:** The APS should register the Person.

**Examples:**

|  |  |  |  |
| --- | --- | --- | --- |
| **APS is Functional** | **Username and Password provided** | **Customer Exists?** | **Sign up** |
| Yes | Yes | Yes | No |
| Yes | No | Yes | No |
| Yes | Yes | No | Yes |

# Configure Statement Viewing User Story

**As a:** Customer of the APS.

**I want:** to configure my Billing Companies.

**So that:** I can Aggregate my Statement Accounts.

## Configure Statements for Viewing Specification

**GIVEN:** that the Customer’s billing companies are listed on the APS.

**AND:** The Customer has already registered with the Billing companies.

**AND:** The Customer is activated for e-billing by the Billing companies.

**AND:** The Customer has provided credentials for the Billing companies.

**WHEN:** The Customer configures the APS for statements viewing.

**THEN:** The APS should add the Customer to a list of Customers eligible for

Statements viewing.

**Examples:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Billing Company Listed** | **Customer Registered with Billing Company?** | **Customer Activated for eBilling ?** | **Customer has Billing Company Credentials ?** | **APS configures the Customer ?** |
| Yes | Yes | No | Yes | No |
| Yes | No | No | Yes |  |
| Yes | Yes | Yes | No |  |

# View Statements User Story

**As a:** Customer of the APS.

**I want:** to View my Account Statements.

**So that:** I can gain insight into my Accounts.

## View Statements Specification

**GIVEN:** That the Customer is successfully configured by the APS to view Accounts’

Statements

**AND:** The ÁPS has successfully scraped the Customer’s Accounts data.

**WHEN:** The Customer requests to View Statements.

**THEN:** The APS must generate the Statements from Customer’s Scrapped Accounts

data.

**Examples:**

|  |  |  |
| --- | --- | --- |
| **Customer Configured by the APS?** | **APS Successfully Scraped data?** | **Generate Statements ?** |
| Yes |  |  |
| Yes |  |  |
| Yes |  |  |

# Schedule Scraping User Story

**As a:** APS Administrator.

**I want:** to configure scraping Schedules for the APS.

**So that:** the APS can periodically Scrape Customer’s Account data.

## Scrape Schedule Specification

**GIVEN:** The billing company’s website maintenance window is known

**AND:** The billing company’s website peak demand periods are known

**AND:** The number of days per billing cycle for the billing company is set.

**AND:** The retry interval following unsuccessful scrape is set.

**WHEN:** A billing company’s website is scheduled for scraping

**THEN:** The scrape scheduling executes successfully

Examples:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Billing Company Website** | **Open Window** | **Peak Periods** | **Billing Cycle is set** | **Retry Interval is set** | **Schedule** |
| Municipalities | Yes | No | Yes | Yes | Yes |
| Municipalities | No | No | Yes | Yes | No |
| Municipalities | Yes | Yes | No | No | No |

# Retrieve Statement Data User Story

**As a:** Scrapper

**I want:** to Navigate to a given URL.

**So that:** I can retrieve a Customer’s Account data.

## Retrieve Statement Data Specification

**GIVEN:** The billing company’s website maintenance window is known

**AND:** The billing company’s website peak demand periods are known

**AND:** The number of days per billing cycle for the billing company is set.

**AND:** The retry interval following unsuccessful scrape is set.

**WHEN:** A billing company’s website is scheduled for scraping

**THEN:** The scrape scheduling executes successfully

Examples:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Billing Company Website** | **Open Window** | **Peak Periods** | **Billing Cycle is set** | **Retry Interval is set** | **Schedule** |
| Municipalities | Yes | No | Yes | Yes | Yes |
| Municipalities | No | No | Yes | Yes | No |
| Municipalities | Yes | Yes | No | No | No |

# Generate Statement User Story

**As a:** APS

**I want:** Generate Statements.

**So that:** a Customer can view them in one central place.

## Generate Statement Specification

**GIVEN:** The Customer’s data has been successfully scrapped.

**AND:** The data has passed all the integrity checks.

**AND:** The data has been successfully saved in a valid XML format.

**WHEN:** The APS is requested to generate the statements.

**THEN:** The APS must convert the XML data into a human readable format.

**Examples:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Customer’s Data is Successfully Scrapped?** | **Data has Passed all the Integrity checks?** | **Data is saved in a valid XML format ?** | **APS Generates the Statements ?** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |