**MBB ASSIGNMENT REQUIREMENT ANALYSIS**

**Software Requirements Specification**

**Version: 1.0**

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Revisions

| Version | Primary Author(s) | Description of Version | Date Completed |
| --- | --- | --- | --- |
| 0.1 | Afiq | Draft.  Update Section 1.1  Update Section 3.2  Update Section Appendix 1 and 2  (Please refer to updated section only) | 00/00/00 |

# 

# Introduction

## Document Purpose

<Identify the product whose software requirements are specified in this document, including the revision or release number. Describe the scope of the product that is covered by this SRS, particularly if this SRS describes only part of the system or a single subsystem.

## Product Scope

1. Batch Job to consume a batch file (text file).
2. RESTFUL API to retrieve record.
   * Must have authentication
   * Must have pagination
   * Can search by customer ID or account number(s) or description

## Intended Audience and Document Overview

<Describe the different types of reader that the document is intended for, such as developers, project managers, marketing staff, users, testers, and documentation writers. Describe what the rest of this SRS contains and how it is organized. Suggest a sequence for reading the document, beginning with the overview sections and proceeding through the sections that are most pertinent to each reader type.>

## Definitions, Acronyms and Abbreviations

<Define all the terms necessary to properly interpret the SRS, including acronyms and abbreviations. You may wish to build a separate glossary that spans multiple projects or the entire organization, and just include terms specific to a single project in each SRS.

## Document Conventions

<In general this document follows the IEEE formatting requirements. Use Arial font size 11, or 12 throughout the document for text. Use italics for comments. Document text should be single spaced and maintain the 1” margins found in this template. For Section and Subsection titles please follow the template.

## References and Acknowledgments

<List any other documents or Web addresses to which this SRS refers. These may include user interface style guides, contracts, standards, system requirements specifications, use case documents, or a vision and scope document.

# Overall Description

## Product Perspective

<Describe the context and origin of the product being specified in this SRS. For example, state whether this product is a follow-on member of a product family, a replacement for certain existing systems, or a new, self-contained product. If the SRS defines a component of a larger system, relate the requirements of the larger system to the functionality of this software and identify interfaces between the two. In this part, make sure to include a simple diagram that shows the major components of the overall system, subsystem interconnections, and external interface. In this section it is crucial that you will be creative and provide as much information as possible.

## Product Functionality

<Summarize the major functions the product must perform or must let the user perform. Details will be provided in Section 3, so only a high level summary is needed here. Organize the functions to make them understandable to any reader of the SRS. A picture of the major groups of related requirements and how they relate, such as a top level data flow diagram or object class diagram, will be effective.

## Users and Characteristics

<Identify the various users that you anticipate will use this product. Users may be differentiated based on frequency of use, subset of product functions used, technical expertise, security or privilege levels, educational level, or experience.

## Operating Environment

1. Spring Boot
2. OOP

## Design and Implementation Constraints

<Describe any items or issues that will limit the options available to the developers. These might include: hardware limitations (timing requirements, memory requirements); interfaces to other applications; specific technologies, tools, and databases to be used; parallel operations; language requirements; communications protocols; security considerations; design conventions or programming standards (for example, if the customer’s organization will be responsible for maintaining the delivered software).

## User Documentation

<List the user documentation components (such as user manuals, on-line help, and tutorials) that will be delivered along with the software. Identify any known user documentation delivery formats or standards.

## Assumptions and Dependencies

<List any assumed factors (as opposed to known facts) that could affect the requirements stated in the SRS. These could include third-party or commercial components that you plan to use, issues around the development or operating environment, or constraints. The project could be affected if these assumptions are incorrect, are not shared, or change. Also identify any dependencies the project has on external factors, such as software components that you intend to reuse from another project.

# System Features

## USE CASE DIAGRAM

## USE CASE DESCRIPTION

### USE CASE ID & NAME (Example: UC001 Create Customer Account)

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | UC001 Consume a Batch File | | |
| Use Case Name: | Consume Batch File | | |
| Created By: | Afiq | Last Updated By: |  |
| Date Created: | 19/4/2021 | Date Last Updated: |  |

|  |  |  |
| --- | --- | --- |
| Actor: | User/Application | |
| Description: | Application consume a batch file based to timer configured | |
| Preconditions: | 1. Application need to be running 2. Connection between application server to ftp server is working 3. Connection between application server to database server is working 4. Timer is configured. | |
| Postconditions: | 1. Batch file move to archive folder once succesful 2. Record is inserted in database | |
| Priority: | Medium | |
| Frequency of Use: | Moderate | |
| Normal Course of Events: | Actor | System |
| 1. Configure the job timer 2. Start the application 3. Ensure application is running 4. Ensure connection of application server, ftp server and database server is working | 1. Application read batch file from ftp server 2. Application rename the file to <filename>.temp 3. Application process the file 4. Application insert record in database 5. Application move the file to archive folder |
| Alternative Courses: |  | |
| Exceptions: | 1. Batch file is not a text file 2. Content of batch file is not properly maintain | |
| Includes: |  | |
| Special Requirements: |  | |
| Assumptions: |  | |
| Notes and Issues: |  | |

### USE CASE ID & NAME (Example: UC002 Create Customer Account)

|  |  |  |  |
| --- | --- | --- | --- |
| Use Case ID: | UC002 Retrieve record | | |
| Use Case Name: | Retrive record consumed in UC001 Consume Batch File | | |
| Created By: | Afiq | Last Updated By: |  |
| Date Created: | 19/4/2021 | Date Last Updated: |  |

|  |  |  |
| --- | --- | --- |
| Actor: | Client/User | |
| Description: | Actor to retrieve record using Rest | |
| Preconditions: | 1. Record was inserted in database 2. Rest application is running 3. Must be autheticated | |
| Postconditions: | 1. Retrieve the record with pagination | |
| Priority: | Medium | |
| Frequency of Use: | Moderate | |
| Normal Course of Events: | Actor | System |
| 1. Request for token / login 2. Request for record by passing correct path, token, page details | 1. Authenticate the request and return token 2. Verify token 3. Query the data from database 4. Return the result to actor |
| Alternative Courses: |  | |
| Exceptions: | 1. Record is not available in database 2. Application is not running | |
| Includes: |  | |
| Special Requirements: | 1. Able to filter by customer id 2. Able to filter by account number 3. Able to filter by description | |
| Assumptions: |  | |
| Notes and Issues: |  | |

Other Non-functional Requirements

## Performance Requirements

<If there are performance requirements for the product under various circumstances, state them here and explain their rationale, to help the developers understand the intent and make suitable design choices. Specify the timing relationships for real time systems. Make such requirements as specific as possible. You may need to state performance requirements for individual functional requirements or features.

## Safety and Security Requirements

<Specify those requirements that are concerned with possible loss, damage, or harm that could result from the use of the product. Define any safeguards or actions that must be taken, as well as actions that must be prevented. Refer to any external policies or regulations that state safety issues that affect the product’s design or use. Define any safety certifications that must be satisfied. Specify any requirements regarding security or privacy issues surrounding use of the product or protection of the data used or created by the product. Define any user identity authentication requirements.

## Software Quality Attributes

<Specify any additional quality characteristics for the product that will be important to either the customers or the developers. Some to consider are: adaptability, availability, correctness, flexibility, interoperability, maintainability, portability, reliability, reusability, robustness, testability, and usability. Write these to be specific, quantitative, and verifiable when possible. At the least, clarify the relative preferences for various attributes, such as ease of use over ease of learning.

# Other Requirements

<This section is **Optional.** Define any other requirements not covered elsewhere in the SRS. This might include database requirements, internationalization requirements, legal requirements, reuse objectives for the project, and so on. Add any new sections that are pertinent to the project.>

Appendix A – REQUIREMENT MODELS

## BUSINESS ACTIVITY DIAGRAM

Please refer to attachments at the current folder.

1. BatchJobActivityDiagram.pdf
2. IBActivityDiagram.pdf

## CLASS DIAGRAM

Please refer to attachments at the current folder.

1. BatchJobClassDiagram.pdf
2. IBClassDiagram.pdf

## SYSTEM SEQUENCE DIAGRAM

Appendix B - Group Log

<Please include here all the minutes from your group meetings, your group activities, and any other relevant information that will assist the Teaching Team to determine the effort put forth to produce this document>