# Automation Mailing System using template for bulk mailing

# (As a part of ACTS Management System)

**Functional Requirement Specification Document**

**23-07-2021**

# Functional Requirements Document

| | |
|---|---|
| **Name of Document** | Functional Requirement Specification <ProjectName> |
| **Author** | **Sagar Deware** |
| **Description of Content** | Functional, Technical and Operational Requirements |
| **Reference** | |
| **Approved by** | |
| **Date of Approval** | |

## Distribution

| Copy No. | Distributed to |
|---|---|
| 1 | <participating Teams> |
| 2 | |
| 3 | |

| | |
|---|---|
| 4 | |

## Document Version Control

| Version Number | Version Date | Prepared by | Reviewed by | Particulars/ Description for Change | Remarks |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |

## List of Requirements Elicitation Discussions

| SN. | Date | Participating Institutes/ Departments |
|---|---|---|
| **1.** | | |
| 2. | | |
| 3. | | |
| 4. | | |
| 5. | | |
| 6. | | |
| 7. | | |
| 8. | | |
| 9. | | |
| 10. | | |
| 11. | | |
| 12. | | |
| 13. | | |
| 14. | | |
| 15. | | |
| 16. | | |
| 17. | | |
| 18. | | |

| | | |
|---|---|---|
| 19. | | |

## Abbreviations

| | |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |

**CONTENTS**


1 **INTRODUCTION** 1
1.1 Purpose 1
1.2 Background 1
1.3 Scope 2
1.4 References 2
1.5 Document Overview 2
**2 UAN Allotment System 3**
**3 FUNCTIONAL REQUIREMENTS 3**
3.1 Registration of Departments 4
3.1.1 Registration of Departments 4
3.1.2 Description 4
3.1.3 Functionalities identified 5
3.1.4 Field validations and business rules 5
3.2 API for Generation of UAN 5
3.2.1 UAN Allotment for a single worker 6
3.2.1.1 Description 7
3.2.1.2 Cross Functional Diagram 7
3.2.1.3 Functionalities identified 5
3.2.1.4 Pre-requisites, Assumptions and Dependencies 7
3.2.1.5 Field validations and business rules 7
3.2.2 UAN Allotment for bulk 10
3.2.2.1 Description 10
3.2.2.2 Cross Functional Diagram 10
3.2.1.3 Functionalities identified 5
3.2.2.4 Pre-requisites, Assumptions and Dependencies 11
3.2.2.5 Field validations and business rules 12
3.3 Updation in UAN Data 13
3.3.1 Description 13
3.3.2 Cross Functional Diagram 14
3.3.3 Functionalities identified 5
3.3.4 Pre-requisites, Assumptions and Dependencies 14
3.3.5 Field validations and business rules 15
3.4 Family Member Details 17

3.4.1 Description 17
3.4.2 Cross Functional Diagram 17
3.3.3 Functionalities identified 5
3.4.4 Pre-requisites, Assumptions and Dependencies 18
3.4.5 Field validations and business rules 18
3.5 Other API Integration with different departments 20
3.5.1 Description 20
3.5.2 Cross Functional Diagram 20
3.3.3 Functionalities identified 5
3.5.4 Pre-requisites, Assumptions and Dependencies 21
3.5.5 Field validations and business rules 21
3.6 Implementation of Aadhaar Data Vault 21
3.7 Download UAN 21
3.8 Print UAN 21
3.9 Report Generation 21
3.10 Data Migration 21
**4 External Interfaces 22**
**5 Audit and Provenance 22**
**6 Current UAN Schema (Shared by the Departments) 22**
**7 Data Migration of UANs from EPFO to UAN Engine 22**

# 1 INTRODUCTION

Introduction to the component and its usage

## 1.1 Purpose

The primary objective of the project, 'Automation Mailing System Using Templates for Bulk Mailing,' is to revolutionize the conventional mailing process by introducing a highly automated and streamlined system. By harnessing the power of automation, this project aims to significantly enhance efficiency and productivity in handling bulk mail. The overarching goal is to cater to the diverse needs of users, including employees and Students, by providing them with a sophisticated yet user-friendly platform. This platform will empower users to effortlessly create, customize, and send bulk emails using pre-designed templates, thereby saving valuable time and resources. Furthermore, the project seeks to mitigate common challenges associated with manual mailing processes, such as errors, delays, and inconsistency in communication. By leveraging automation, it promises to deliver swift and accurate mailings, ensuring timely dissemination of information and correspondence. Ultimately, the Automation Mailing System endeavors to revolutionize how organizations and individuals manage their communication needs, offering a seamless and efficient solution that aligns with modern standards of productivity and convenience.

## 1.2 Scope

The scope of the 'Automation Mailing System using templates for Bulk mailing' project encompasses the development and implementation of a comprehensive software solution tailored specifically for use within CDAC (Centre for Development of Advanced Computing). This system will serve as an integral tool for every entity within CDAC, spanning across departments, teams, and individual users. In addition to its primary application within CDAC, the project aims to offer a versatile solution

that can be adapted for use by a wide range of organizations reliant on email communication. This includes but is not limited to educational institutions, government agencies, corporations, and nonprofit organizations.

### 1.4 References

a) Reference documents: SRS , Design Document

### 1.5 Document Overview

This document gives an overview of the **Automation Mailing System using template for bulk mailing**; its interactions and functionality. It also describes the type of stakeholders that use the system and what functionalities are available for each type. The following FRS contains the details of Functionalities. It provides the detailed functions of the System with permitted Constraints, Assumptions, Dependencies and Requirements subsets.

The Functional Requirements Specification (FRS) document outlines the specific functionalities and features that will be implemented in the "Automation Mailing System using templates for Bulk Mailing" project. It serves as a detailed guide for developers, project managers, and stakeholders to understand the functional aspects of the system.

# 2 FUNCTIONAL REQUIREMENTS

List the functionalities of the system.

## 2.1 Functionality 1

### 2.1.1 Description

Explain about what this functionality 1 meant for.

### 2.1.2 Functional Requirements Identified

| Functionality 1 | | | |
|---|---|---|---|
| **SN.** | **Functionality** | **Process** | **Remarks/ Additional Info** |
| FR 1.1 | Sending Mail by Choosing Template: | Users should be able to select pre-designed email templates from a template library to compose and send emails quickly.<br>Templates may include predefined formatting, text, images, and placeholders for dynamic content insertion. | Additional information if any |
| FR1.2 | Sending Normal Mail Without Using Any Template: | Users should have the option to compose emails without utilizing any pre-existing | |

| | | | |
|---|---|---|---|
| | | templates, allowing for personalized messaging tailored to specific recipients. | |
| FR1.3 | Login as Admin to Create Mail Template: | Administrators should be able to log in to a dedicated admin interface to create, edit, and manage email templates.<br>Admins should have the ability to define the layout, content, and styling of templates to ensure consistency and branding across all outgoing emails. | |
| FR1.4 | Mail Admin to Remove/Enable/Disable Template: | Administrators should possess the authority to manage the availability of email templates by enabling, disabling, or removing them as needed.<br>This feature ensures that outdated or irrelevant templates can be deprecated, while new templates can be added or existing ones can be modified. | |

| | | | |
|---|---|---|---|
| FR1.5 | Mail Admin to Generate Mailing Groups: | Administrators should be able to create and manage mailing groups, allowing for efficient distribution of emails to predefined sets of recipients.<br>Mailing groups can be categorized based on various criteria such as department or custom attributes. | |
| FR1.6 | Generic Mail With/Without Attachment: | Users should be able to send generic emails to recipients with or without file attachments, catering to scenarios where users need to convey general information or updates to a wide audience. | |
| FR1.7 | Named Mail With/Without Individual Attachment: | Users should be able to send personalized emails addressed to specific recipients, either with or without individualized file attachments, enabling targeted communication tailored to individual recipients. | |
| FR1.8 | Named/Custom Mail With/Without Attachment: | Users should have the option to further customize emails by incorporating | |

| | | | |
|---|---|---|---|
| | | personalized content, such as recipient names or specific message components, along with optional file attachments. | |
| FR1.9 | Mail With Multiple Attachments: | Users should have the capability to attach multiple files to a single email, facilitating the transmission of various documents, images, or other multimedia content in a single message. | |

### 2.1.3 Fields Validations

This table lists the various fields that will be there in the form for the requirement

| SN | Field Name | Field Description | Validations | Remarks |
|---|---|---|---|---|
| 1 | Name of field | Field description | • Validations | Mandatory/non mandatory |

#### 3.2.1.4 Pre-requisites, Assumptions and Dependencies

Databases should be stored in the system before deployment.

## 3 External Interfaces

Explain if any external interface is to be connected like redirection to some other portal or information fetch from some other portal.