Software Requirements Specification (SRS)

1. Introduction

1.1 Purpose:

The purpose of this document is to define the software requirements for the development of a scalable, secure, and unrestricted Bulk Email Marketing Platform.

1.2 Scope:

The platform will provide functionalities including unlimited email sending, SMTP configuration, real-time analytics, automation, and CRM integrations.

1.3 Intended Audience:

Product Owners, Developers, QA Engineers, Stakeholders (Marketing Heads, Startups, Non-profits).

1.4 Definitions, Acronyms:

SMTP, SPF, DKIM, DMARC, GDPR, CTR, 2FA.

2. Overall Description

2.1 Product Perspective:

Standalone web application using microservices architecture.

2.2 Product Functions:

- Campaign creation, SMTP/IP management, template editor.

- Contact segmentation, dashboard analytics, automation.

2.3 User Classes:

Admin, Campaign Manager, Viewer.

2.4 Operating Environment:

OS: Linux, Browser: Chrome/Firefox, DB: PostgreSQL/MongoDB, Backend: Python/Node.js.

2.5 Constraints:

SMTP provider limits, domain reputation, GDPR compliance.

2.6 Assumptions:

Users provide SMTP credentials and DNS access.

3. Specific Requirements

3.1 Functional Requirements:

- Authentication with roles, campaign management, A/B testing.

- Template editor, contact import, SMTP config, real-time dashboard.

- Automation workflows, compliance tools, API integrations.

3.2 Non-Functional Requirements:

- Performance: Support 1M+ emails/day.

- Availability: 99.9% uptime.

- Scalability: Horizontal scaling.

- Security: HTTPS, JWT, RBAC.

- Maintainability: Modular APIs.

- Portability: Docker, AWS, Linux.

3.3 External Interfaces:

- UI: Responsive web interface.

- SMTP: Amazon SES, Mailgun, SendGrid.

- CRM APIs: Zoho, Salesforce.

- REST API and Webhooks.

4. Appendices

- Sample SPF/DKIM configuration steps.

- Glossary of terms: Open Rate, Bounce, CTR.