

## **DECLARATION**

I hereby declare that the project work presented in this report titled "**MailS: An Online Mass Mail Dispatcher Service**" is an original and authentic work carried out by me under the guidance of **Mentor cum Project Manager** at **Exposys Data Labs**. All information, data, code, and concepts obtained from external sources have been duly acknowledged and referenced.

I further declare that this project work has not been submitted for any other purpose or examination to any other institution or organization. The results and findings presented in this report are based on my own analysis and interpretation of the data gathered during the course of this internship.

Further, I declare that I have not violated any of the provisions under the acts of Copyright/Piracy/Cyber/IPR etc. amended from time to time.

Date : 5<sup>th</sup> July 2023

Place : Howly, Assam

**Regards,**

Hasan Al Saeed

ECE, IIT(ISM) Dhanbad

Email : [hasan.19je0363@ece.iitism.ac.in](mailto:hasan.19je0363@ece.iitism.ac.in)

Mobile No. : +91-86387-07916

GitHub : [@hasan-code](#)

LinkedIn : [Hasan Al Saeed](#)

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## **ABSTRACT**

The project, **MailS**, a web-based Mass Mail Dispatcher service, is very useful for the study of Web development and interaction between an Email API and computer program. This project report consists of an overview of **MailS** and a basic idea of mass mail dispatching service through personal gadgets, such as personal computer, a tablet or even a smartphone. The report covers the existing method used in mail email dispatching, introduces the proposed method with its architecture, outlines the methodology, implementation details, and concludes with key findings and future recommendations.

It is very tedious and tiresome for a person to check an email address and send an email from a bulk of email addresses that are stored in the database of ones's company or organisation. This project is mainly focused and developed to support the busy people who want to save time. With modern technology and gadgets that are leading the market today, checking and sending emails to a large number of clients with **MailS** is a dream come to be true.

**MailS** allows users to upload a CSV file containing a bulk of email addresses and sends emails to the valid addresses provided. The service separates out valid and invalid email addresses and displays them in a pop-up modal for the user's convenience.

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## 1. INTRODUCTION

Mass Mail Dispatching is a service that allows a user to pre-populate a form with some data or messages and then send it to a large number of people at the same time. This service can be widely used by media companies, banks, enterprises, organisations, private and public firms for marketing and fraud control and consumer brands for a variety of purposes including marketing, promotions and entertainment.

While Google's Gmail comes to be very handy to have an instantaneous communication by using the web technology to send a message or to promote some products to anyone, anytime and anywhere, **MailS** extends this feature by implementing the ability to easily validate an email address from a bulk of email addresses and then send the message to a large number of recipients at the same time with reliability. This mass mail dispatching service by **MailS** can be used by a wide number of clients including public as well as private firms, organizations, etc. Teachers and lecturers of various schools and universities can also use the service to notify the bulk of students whenever necessary. Moreover, **MailS** provide an information service such as sending special announcements, news and important information for lecturers, administrators and other relevant recipients.

## **1.1 What is an Email?**

Email, short for “Electronic mail”, is a method of transmitting and receiving messages using electronic devices from/to anywhere in the world. Email is a ubiquitous and very widely used communication medium. Email operates across computer networks, primarily the Internet, and also local area networks. Email servers accept, forward, deliver, and store messages. Email uses multiple protocols within the TCP/IP.

### **1.1.1 Single Emails**

Single emails are like regular individual emails that may go to one or more addresses (to/cc/bcc), but each of these emails has the same body.

### **1.1.2 Mass Emails**

Mass emails typically go to a large number of addresses (currently capped to 250 per email), with personalized message bodies. If you wanna send Mass Email then take a look at the salesforce app Massmailer.

MassMailer lets you send unlimited emails from within Salesforce, no matter which edition you use. Built on the Salesforce platform, it has all the mass email features you’ll ever need.

- Send unlimited emails no matter how large your email list isNative Salesforce integration for a seamless experience.
- Beautiful email templates complete with HTML and text versions.
- Simple email creation wizard for point-and-click ease.
- Detailed metrics & monitoring so you’re always in the know.
- Email verification & deliverability tools to make sure your emails reach your prospects.

### **1.1.3 Real Life Example**

Mass mail marketing refers to sending one email message to a large group or list of contacts. Mass email marketing is useful for information that is relevant to large number of contacts (like a newsletter or a company update).

For example; if any college, during the campus placement session there are up to 500 candidates are interested for a job at a particular company. Then the college is not going to send email individually. Instead, they will send email to everyone at once through batch mailing.

## **1.2 How to send and receive an email?**

### 1.2.1 E-mail program

To send and receive e-mail messages, you can use an **e-mail program**, also known as an **e-mail client**, such as Microsoft Outlook or Mozilla Thunderbird. When using an e-mail client, a server that stores and delivers your messages is used. This server is often hosted by your ISP but can be another Internet company. An e-mail client needs to connect to a server to download new e-mail, whereas e-mail stored online is always available to any Internet-connected device.

### 1.2.2 Online e-mail

An alternative way of sending and receiving e-mail (and the more popular solution for most people) is an online **e-mail service** or webmail. Examples include Hotmail (now Outlook.com), Gmail, and Yahoo Mail.

## 2. METHODOLOGY

### 2.1 Existing Method

India has one of the densest and prospective markets for cellular phones, and mobile service providers have a strict policy about providing access to their customer bases. Many consumers activate "Do Not Disturb" services that disallow mass publicity calls and messages. However, Mass Mail service provider in Mumbai maintain databases of people who are open to mass messages. This means that a company engaging in this kind of marketing can actually reach out to a target audience more efficiently. Not all Mass Mail service providers have extensive resources however, and it is up to you to select the right vendor.

Mass Mails reach the target audience with greater efficiency than television or print advertising because they reach the client directly. A message on your phone is something that you can always refer to later; and it doesn't go ignored as marketing calls often do. On the other side of the playing field, a Mass Mail service provider can reach out to thousands of people within a limited cost. While conventional advertising cannot guarantee the attention of your intended target audience, Mass Mails will allow you a deeper reach into the market without spending as much as you would when engaging in conventional marketing!

Moreover, in this digital world, smartphones are the best partner. Without it, nobody survives. Even the old aged or illiterate people used to have smartphones and they try to read all messages. These people never read email as they don't have an email account. Hence, there may be no doubt that Mass Mail service will assist you to connect with your audiences better. Get your Mass Mail service through us thousands of your audience at the same time.

### 2.2 Proposed Method with Architecture

The project, **MailS**, a web-based Mass Mail Dispatcher service, is very useful for the study of Web development and interaction between an Email API and computer program. The website is designed to send mass mails to all the recipients uploaded through a CSV file. The CSV file consists of a large number of email addresses. Once the file is uploaded, the email addresses are investigated and the valid and invalid email addresses are separated by JavaScript functions. The list of valid and invalid email addresses are then displayed in a modal which pop-out the browser's window with two lists of valid and invalid email addresses and also their respective counts.

There is also a form that takes the sender's email address, an email subject and the email body as message. Once the 'Send email' button is clicked, the mail gets sent to all the valid email addresses of the CSV file. (However, due to the ElasticEmail API limitation, only 100 emails can



be sent in one day. For project demonstration, I'm sending email to only one email address. I have commented out the javascript code that can be implemented to send emails to all the valid email addresses).

### 2.3 Flow Chart of SMTP protocol

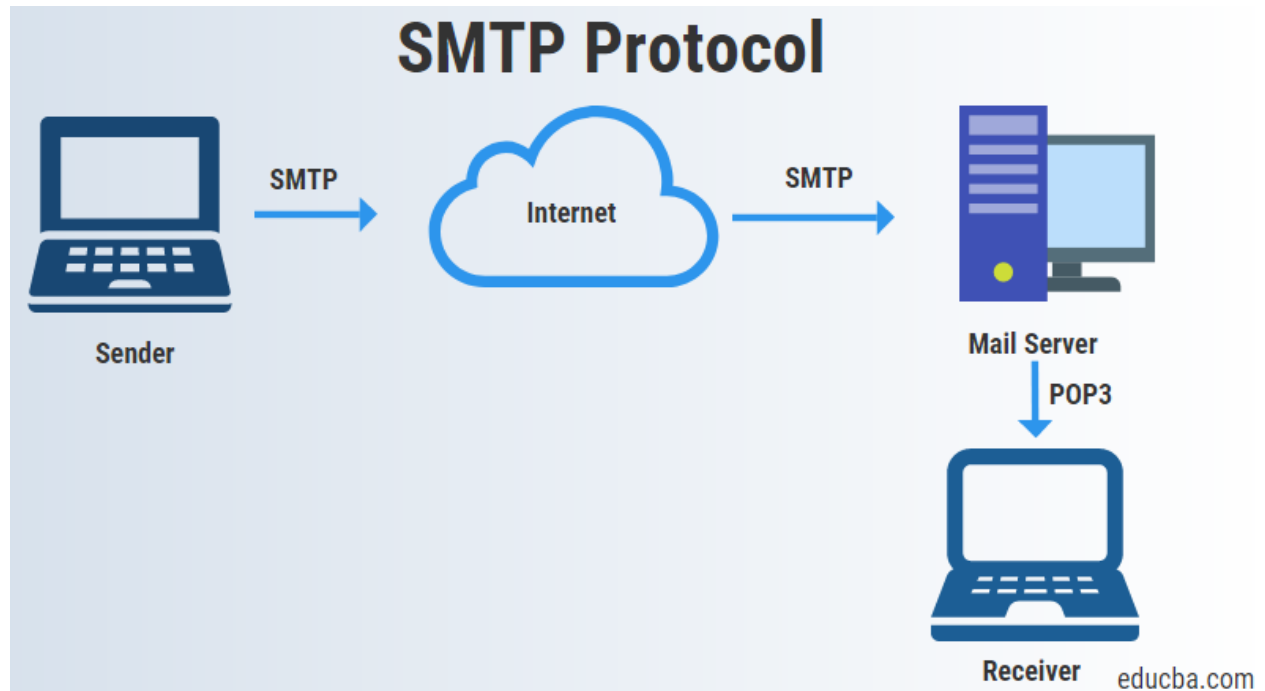


Fig: SMTP protocol flow-chart.

### **3. IMPLEMENTATION**

#### **3.1 Software used:**

- HTML, CSS
- Programming Language - JavaScript
- IDE - Visual Studio Code (Version 1.79.0)
- Operating Sysytem - macOS Big Sur (Version 11.7.2)

#### **3.2 Libraries used:**

- [smtp.js](#)
- API - [ElasticEmail](#)
- csv

#### **3.3 Hardware used:**

- Processor - 1.8 GHz Dual-Core Intel Core i5
- RAM - 8 GB 1600 MHz DDR3
- ROM - 128 GB SSD

#### **3.4 API**

##### 3.4.1 Pros:

- Simple & reliable.
- Cost effective & Scalable

##### 3.4.2 Cons:

- Can send only 100 emails/day (Free version).

#### 4. CONCLUSION

This service is widely useful in any organizations, colleges, banking, companies, e-commerce, market news, government & public utilities, logistics, media & entertainment, travel & tourism industry, etc. and many more.

Notify your customer/user about the new updates of organisations/colleges. In logistics, it can be used to send the shipping updates, invoices, bills, tracking details, web URLs and much more via **MailS**. Media & Entertainment industry can use it to invite the audience to a FM/Tv show or ask the audience to vote for their favourite contestants in the reality shows. Travel & Tourism industry can use it to send all the itineraries and travel routes via an email to make the journey more hassle-free.

## REFERENCES

- [https://www.irjmets.com/uploadedfiles/paper//issue\\_9\\_september\\_2022/29666/final/fin\\_i\\_rjmets1662620811.pdf](https://www.irjmets.com/uploadedfiles/paper//issue_9_september_2022/29666/final/fin_i_rjmets1662620811.pdf)
- <https://www.slideshare.net/nkniteen/bulk-sms-sender-project-report>
- <https://en.wikipedia.org/wiki/Email>
- <https://developer.salesforce.com/forums/?id=906F000000008tFFIAY>
- <https://www.educba.com/smtp-protocol/>
- <https://www.computerhope.com/jargon/e/email.htm#:~:text=Short%20for%20electronic%20mail%2C%20e,individual%20or%20group%20of%20individuals.>
- <https://smtpjs.com/>
- <https://elasticemail.com/>