

SMART INDIA HACKATHON 2022



AICTE

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

PS Code – DR703

Problem Statement Title - Bulk email & SMS service

Theme Name – Smart Education

TEAM NAME – DAZZLING DEVELOPERS

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INSTITUTE CODE(AISHE) – [C-32842]

TEAM INTRODUCTION – DAZZLING DEVELOPERS

- | | | |
|------------------------------------|--------------|------------|
| • Team Leader – Pratyush Bhatnagar | Branch – CSE | Year – III |
| • Team Member 1 – Rishabh Kumar | Branch – IT | Year – III |
| • Team Member 2 – Hemant Singh | Branch – IT | Year – III |
| • Team Member 3 – Akshat Aggarwal | Branch – IT | Year - III |
| • Team Member 4 – Anshul Vats | Branch – IT | Year - III |
| • Team Member 5 – Babita | Branch – CSE | Year – III |

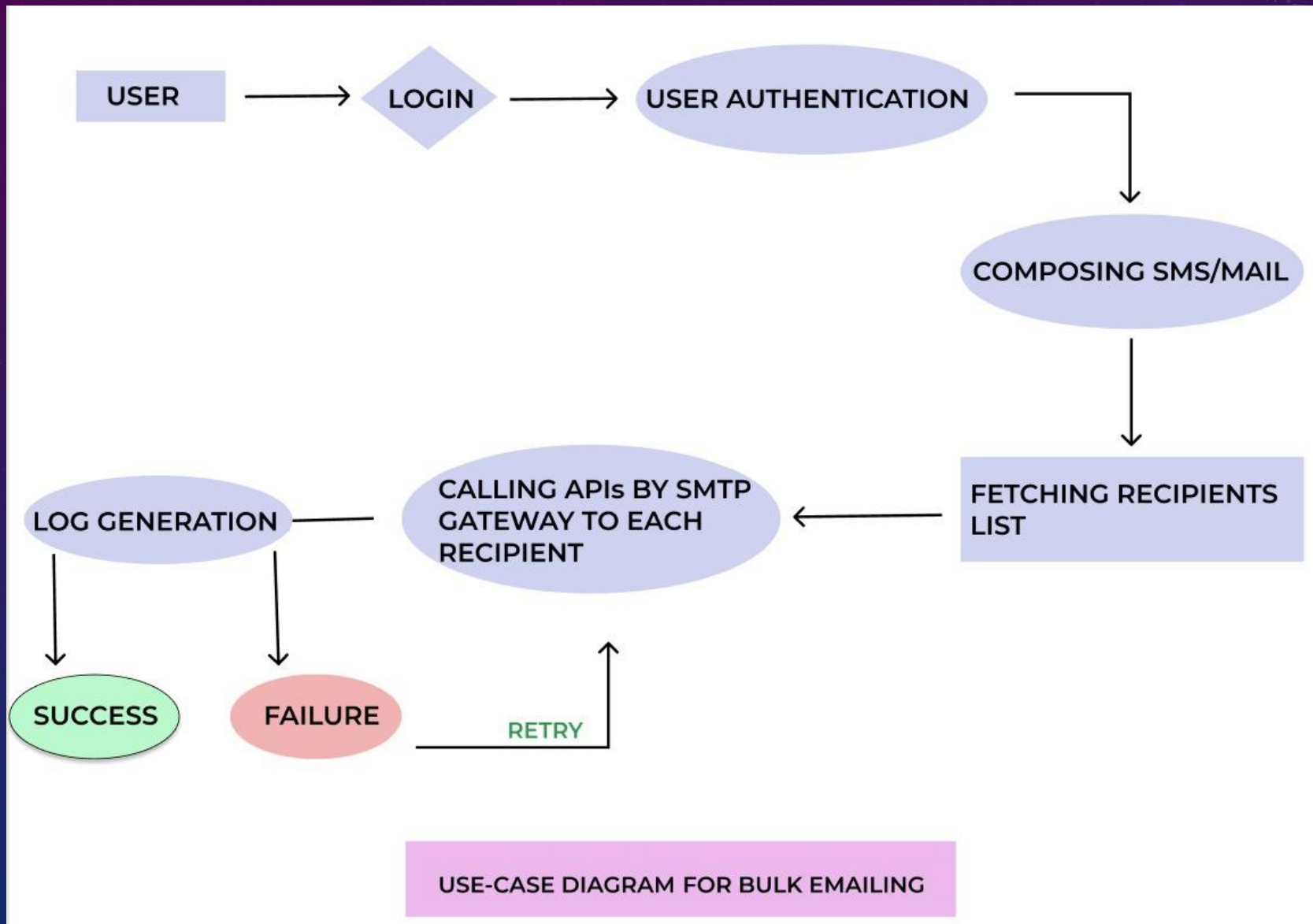
PROBLEM **STATEMENT**

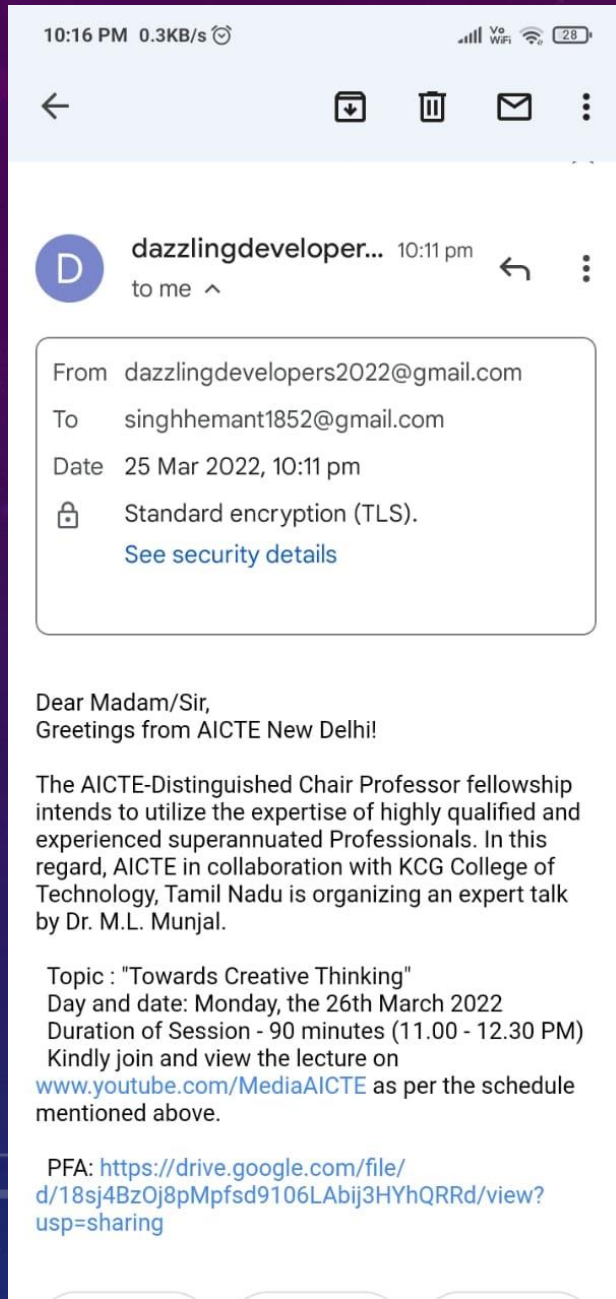
- **Background:** Information sharing is a major factor for development in the country. It is a time taking process to share information to all the citizens of the country through media and newspaper.
- A bulk SMS or email service which can convey information to larger audience in short interval of time is a requirement.
- **Objective:** We need a mobile/web app that will allow sending Bulk email & SMS (around 1 crore) user in one go through SMTP or other technology and it will be compatible for that.

OUR APPROACH & TECH STACK USED

- Since the Problem statement emphasizes on creating a solution for communicating and sharing Information to vast audience at a minimal duration of time via SMS/email, our software fulfills the requirements of communication alongside with the additional features as well.
- The Recipients list can be selected manually or can be automatically imported through .doc files or .xls sheets. The Website will be using SMTP (Simple Mail Transfer Protocol) API for sending information over email/SMS. It will show status of success or failure with time.
 - **Server Backend:** Node.js, Express.js
 - **Database:** my-SQL
 - **Information Sharing:** Email sending APIs (SMTP Technology)
 - **Website Frontend:** HTML, CSS, JavaScript

FLOWCHART TO DEPICT BULK SMS/EMAILING





BRIEF WORKFLOW DISPLAY

First user authentication is done by getting a valid email id and password.



The server sends a request to SMTP with given credentials to initiate the server and generate a transporter between our server and Webmail (i.e Gmail, Yahoo, etc.)



On Each Call(), the SMTP server reverts back the response each time the mail gets delivered to the recipient with the status code and accordingly log gets generated.

Generated Log-

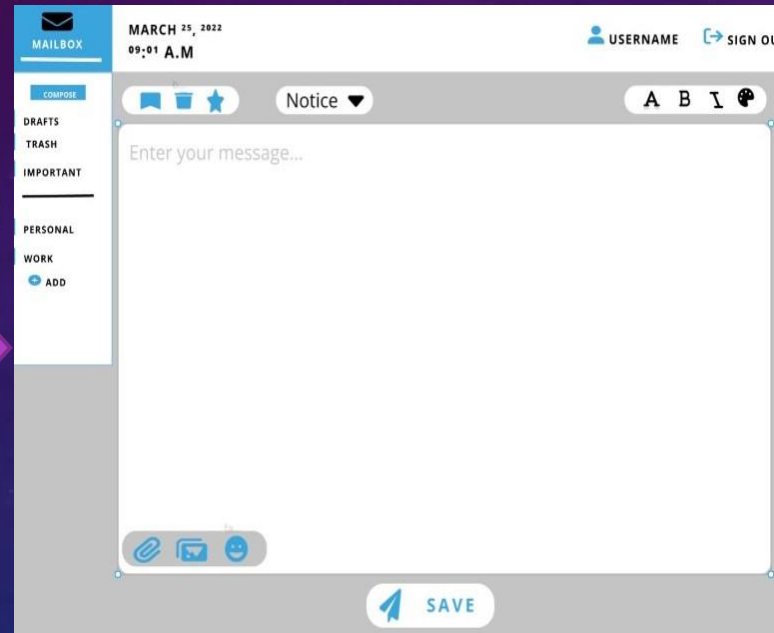
```
{
  accepted: ['receivermail@gmail.com'],
  rejected: [],
  response: '250 2.0.0 OK 1648218439 z16-20020aa78890000000b004fad8469f88sm6986887pfe.38 - gsmtip',
  messageId: '<2e1b0574-082f-83bf-d028-cb786726fac5@gmail.com>'
}
```

USER INTERFACE OF THE PROTOTYPE



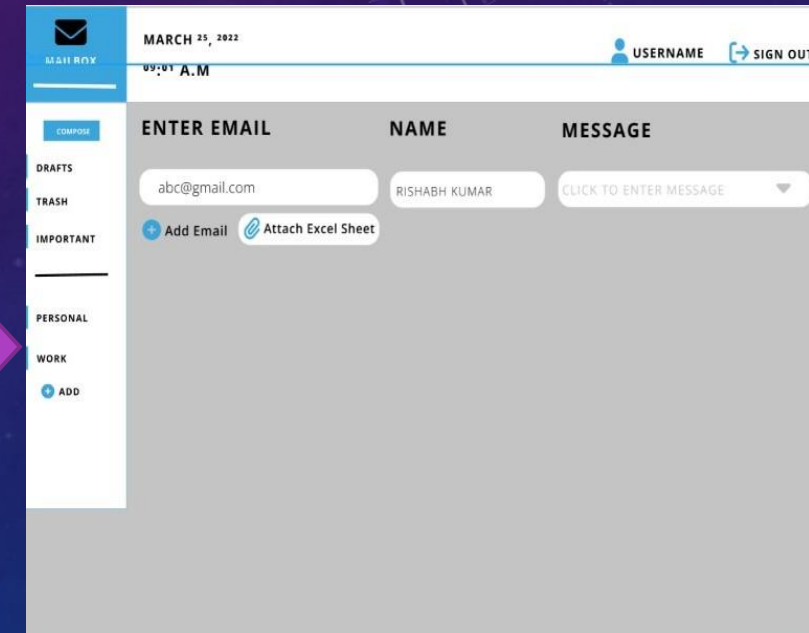
A login form with a purple user icon and the word "LOGIN" below it. Below the icon are two input fields labeled "EMAIL" and "PASSWORD". At the bottom is a blue "LOGIN" button and a link that says "Forgot Password".

Login & user authentication page



A compose screen for SMS or email. The top bar shows "MAILBOX", the date "MARCH 25, 2022", the time "09:01 A.M", and a "SIGN OUT" button. A left sidebar lists "COMPOSE", "DRAFTS", "TRASH", "IMPORTANT", "PERSONAL", "WORK", and "ADD". The main area has a "Notice" dropdown, a text area with "Enter your message...", and a "SAVE" button at the bottom. There are also icons for attachments, a link, and a smiley face.

Compose SMS/Email



A screen for retrieving and fetching a receiver's email address. The top bar is identical to the previous screen. The left sidebar is also identical. The main area has a table with three columns: "ENTER EMAIL", "NAME", and "MESSAGE". The "ENTER EMAIL" column contains the text "abc@gmail.com". The "NAME" column contains the text "RISHABH KUMAR". The "MESSAGE" column contains the text "CLICK TO ENTER MESSAGE" and a dropdown arrow. Below the table are two buttons: "Add Email" and "Attach Excel Sheet".

Retrieving and fetching receiver's email address

FEATURES INVOLVED

- Reduced processing time with efficient working (cost efficient)
- Allows Customization of SMS/emails according to receiver's details
- Categorizes SMS/mail based on their category (such as warning, alert, information)
- Importing contact details from excel worksheets
- Log generation (success or failure)
- Sharing information with a large community
- Allows well formatted message sharing
- User Authentication
- Mail Scheduling

MARKET SCOPE

01

SMS based Pandemic alarming system for the Primary Health centers to manage public health information.

02

Banking and Finance alerting system for server as well as user bank details

03

Subscription reminders to organization's Newsletters, new products and upcoming release notes

04

Beneficial for the marketing companies/agencies who wants their services to be advertised

05

Travel & Tourism, Restaurants, E-Commerce, recommendations based on preferences on public utilities, Real Estate, Media, Education etc.