



MAILOPS-CLI: A SEAMLESS COMMAND-LINE SOLUTION FOR EFFICIENT EMAIL MANAGEMENT



TEAM MEMBERS

1. ELANTHIRAYAN.E
2. DHIVAHAR.V
3. DIWAKAR.P
4. ARINDRAN.M

Guide Name :

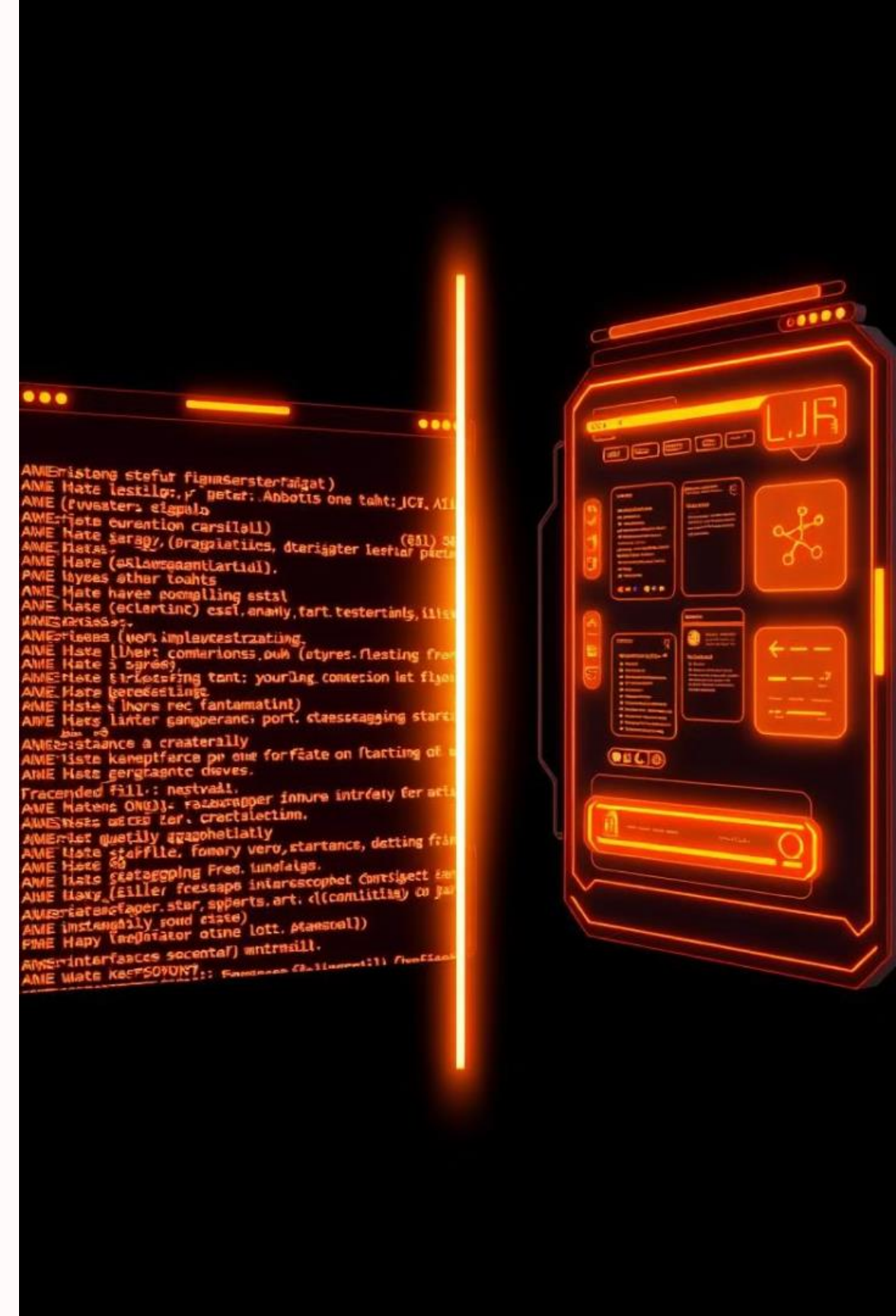


AGENDA

1. Domain introduction
2. Problem statement
3. Existing system
4. Proposed system
5. Software tools
6. Architecture
7. Modules
8. Output
9. References

DOMAIN INTRODUCTION

- ❑ **Command-Line Interface (CLI):** A text-based interface that enables users to interact with the system by typing commands, offering a lightweight and efficient way to execute tasks directly in the terminal or console.
- ❑ **Email Management:** The process of organizing, sorting, and interacting with emails in an efficient and structured manner. It involves tasks such as sending, reading, sorting, and archiving emails.
- ❑ **Why CLI for Email?**
 - Offers faster access without a GUI*
 - Reduces resource usage and increases productivity*
 - Enables advanced users to manage emails with greater control.*



Problem Statement & Existing System

Inefficient Email Workflows:

- 1 Cluttered Inboxes:** Difficulty managing and prioritizing emails due to high volumes.
- 2 Limited Automation:** Existing email systems lack efficient automation for sorting, filtering, and organizing emails.
- 3 Power User Limitations:** Traditional GUIs offer limited control and customization for advanced email management.

Existing System Challenges:

- 1 GUI Dependency:** Graphical email clients are slow and resource-heavy.
- 2 Manual Processes:** Email management relies heavily on manual sorting, searching, and flagging.
- 3 Basic Notification Systems:** Existing tools lack advanced, customizable notifications for better user responsiveness.



The Solution: MailOps-CLI

Command-Line Interface:

A lightweight, fast interface for managing emails without the need for a GUI.

Advanced Email Organization

Automates email sorting, searching, and flagging for better organization.

Efficient Workflow:

Allows quick access to email features (sending, reading, starring, searching) via simple commands, improving productivity.

Speed & Efficiency:

Reduce the time spent on manual email management tasks.

User-Friendly for All:

Tailored for both novice and advanced users with simple, intuitive commands.

Resource-Friendly:

Operates without consuming system resources like traditional email clients.



Software Tools

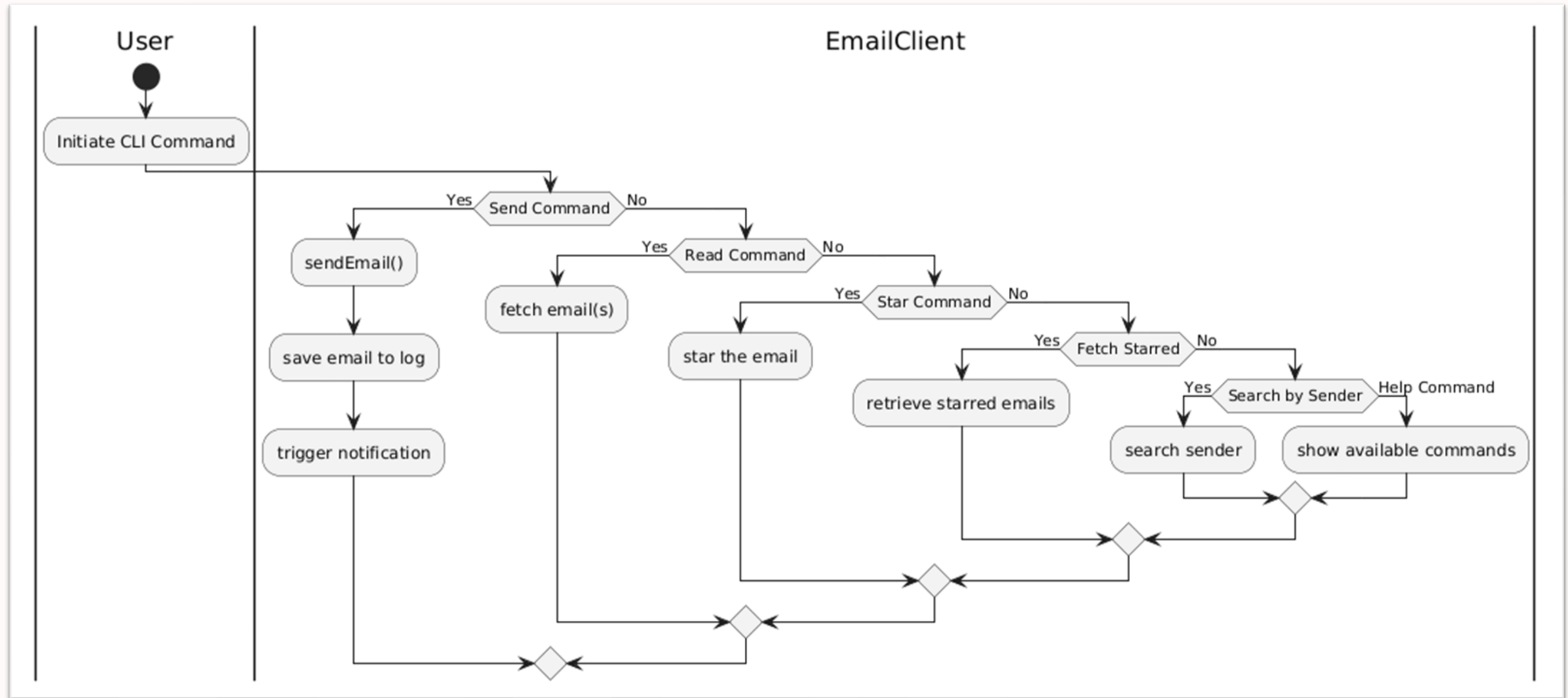
Technologies Used:

- ❑ **Node.js:** JavaScript runtime for building scalable server-side applications.
- ❑ **JavaScript:** Language used for scripting email commands.
- ❑ **Node mailer:** Module for sending and receiving emails.
- ❑ **JSON:** Used for storing email data and configurations locally.
- ❑ **CLI (Command-Line Interface):** Lightweight interface for email management.

Supporting Tools:

- ❑ **Git:** Version control for collaboration.
- ❑ **Visual Studio Code:** Code editor for development.

Architecture



Modules in MailOps-CLI

1. Storage Module

- ❑ Stores emails and user settings locally for offline access.
- ❑ Uses JSON to cache data, improving loading times and reducing server dependency.

2. Notification Module

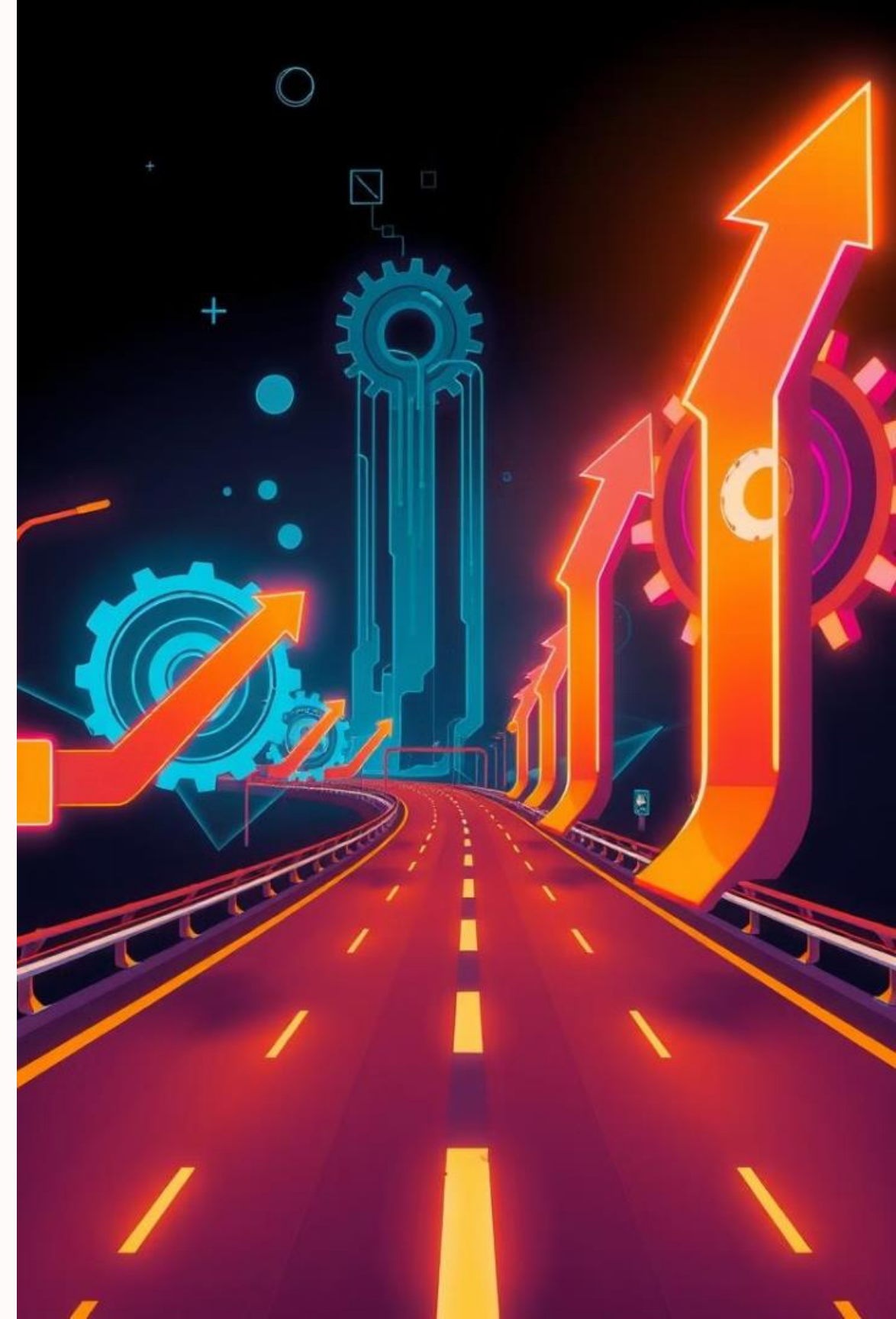
- ❑ Monitors inbox and alerts users to new emails.
- ❑ Provides notifications directly within the CLI for quick updates.

3. Log Module

- ❑ Maintains a log of sent emails for easy reference.
- ❑ Helps track email activity and supports efficient email management.

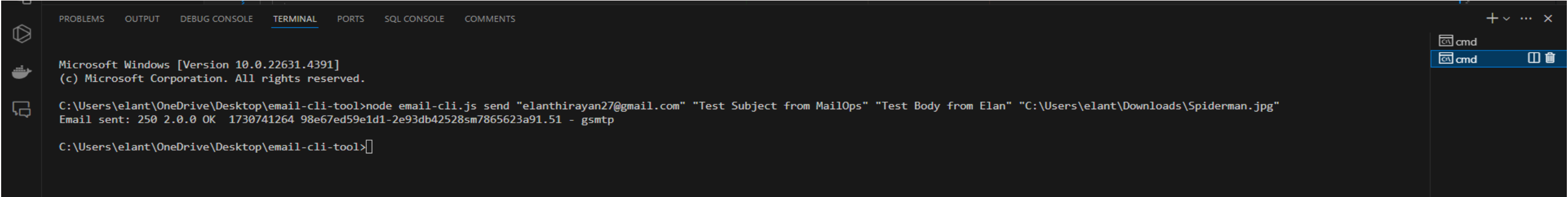
4. Command Execution Module

- ❑ Interprets and executes user commands like sending, reading, and starring emails.
- ❑ Supports flexible filters (e.g., by date or sender) for efficient email handling.

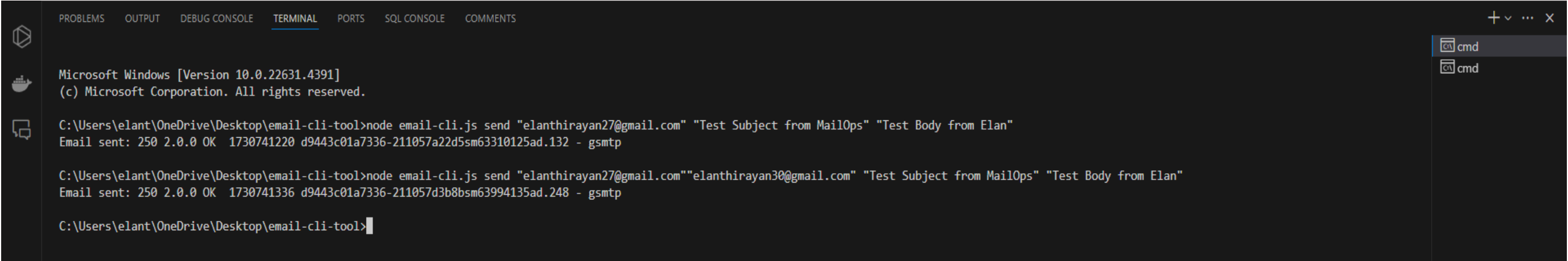


OUTPUT

SEND OPERATION WITH ATTACHMENTS



SEND OPERATION FOR SINGLE & MULTIPLE USERS



READ OPERATION LASTEST MAILS



READ MAILS ON DATE FILTRATION

74return

PROBLEMSOUTPUTDEBUG CONSOLETERMINALPORTSSQL CONSOLECOMMENTS

C:\Users\elant\OneDrive\Desktop\email-cli-tool>node email-cli.js read all 2024-11-01 2024-11-03
Message #508
Message #509
From: LottieFiles <hello@lottiefiles.com>
To: alienxelan@gmail.com
Subject: Resolution of recent security incident
Date: Fri, 1 Nov 2024 16:01:07 +0000
Body (first 2 lines):
-----=_Part_3581664_1689694676.1730476867508
Content-Type: text/html; charset=UTF-8

From: Quora Digest <english-personalized-digest@quora.com>
To: alienxelan@gmail.com
Subject: Does Hanuman Chalisa do miracles? Has anyone witnessed a miracle?
Date: Sat, 02 Nov 2024 04:16:51 +0000
Body (first 2 lines):
-----1625675068496956143==
Content-Type: text/plain; charset="utf-8"

cmd

cmd

SET & FETCH STAR MAILS

PROBLEMSOUTPUTDEBUG CONSOLETERMINALPORTSSQL CONSOLECOMMENTS

C:\Users\elant\OneDrive\Desktop\email-cli-tool>node email-cli.js star 1
Message #1 has been starred.
Connection ended.

C:\Users\elant\OneDrive\Desktop\email-cli-tool>node email-cli.js fetch starred
Message #1
Message #3
Message #461
From: Google Community Team <googlecommunityteam-noreply@google.com>
To: alienxelan@gmail.com
Subject: Your Google Account is live - now help your business grow
Date: Fri, 10 Nov 2023 04:29:56 -0800
Body (first 2 lines):
--00000000000067432f0609cb7abc
Content-Type: text/plain; charset="UTF-8"; format=flowed; delsp=yes

cmd

cmd

SEARCH MAILS BY USER MAILID

1

C:\Users\elant\OneDrive\Desktop\email-cli-tool>node email-cli.js searchsender elanthirayan27@gmail.com
Message #373
From: "Elanthirayan .E" <elanthirayan27@gmail.com>
To: "alienxelan@gmail.com" <alienxelan@gmail.com>
Subject:
Date: Sat, 24 Aug 2024 22:31:02 +0530
Body (first 2 lines):
--000000000000de2942062070d63e
Content-Type: text/plain; charset="UTF-8"

Done fetching messages!
Connection ended.

SEARCH MAILS BY USER MAILID

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE COMMENTS

C:\Users\elant\OneDrive\Desktop\email-cli-tool>node email-cli.js help
Available commands:
send <recipients> <subject> <body> [attachmentPaths...] - Send an email
read latest <numMessages> - Fetch the latest messages
read all [startDate] [endDate] - Fetch all messages in a date range
read on <date> - Fetch messages on a specific date
star <seqNo> - Star an email
fetch starred - Fetch all starred emails
markread <seqNo> <true|false> - Mark an email as read or unread
searchsender <email> - Search emails from a specific sender
help - Display this help message

cmd

cmd

LOCAL STORAGE LOG FILE MAILS SEND

JS send.js M X JS read.js M readme.md M email-cli.log U X JS email-cli.js M

email-cli.log
1 [2024-11-06T07:37:41.998Z] - Sent email to recipient@example.com,Test Subject,Test Body,path/to/attachment1.jpg,path/to/attachment2.pdf with subject "undefined"
2 [2024-11-06T08:25:52.296Z] - Error sending email to recipient@example.com with subject "Test Subject": ENOENT: no such file or directory, open 'C:\Users\elant\OneDrive\Desktop\email-cli.log'
3 [2024-11-06T08:26:16.375Z] - Sent email to recipient@example.com with subject "Test Subject"
4 [2024-11-06T08:32:35.729Z] - Sent email to recipient@example.com with subject "Test Subject"
5 [2024-11-06T08:36:36.030Z] - Sent email to elanthirayan27@gmail.com with subject "Test Subject"
6 [2024-11-06T08:59:10.884Z] - Sent email to elanthirayan27@gmail.com with subject "Test Subject"
7

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THANK YOU...