# Software Requirements Specification

**for**

# DataMea

**Version 0.01**

**Prepared by Mike Carroll, Tyler Dominick, Ethan Osborne, and Dylan Rizzo**

**September 2018**

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# 2. Revision History

| Sign-Off Name | Sign-Off Date | Version |
|---|---|---|
| Dylan Rizzo | Sept. 4, 2018 | 0.01 |
| Dylan Rizzo | Sept. 17, 2018 | 0.02 |

# 3. Overview

## 3.1. Scope

DataMea is an application that its users can analyze some general statistics of their IMAP email.

## 3.2. Participants

At this given time, the Software Design project team consists of the following ten individuals:

Ray Breton, Mike Carroll, Tyler Dominick, Cedric Hansen, Gaoping Lin, Douglas Myrdek, Ethan Osborne, Sylvia Pericles, Dylan Rizzo, and Andy Vadnais.

Each member is involved with their respects departments as follows:

| Database/Networking | Engine | GUI |
|---|---|---|
| Breton, Raynier | Dominick, Tyler | Breton, Raynier |
| Carroll, Michael | Hansen, Cedric | Myrdek, Douglas |
| Dominick, Tyler | Lin, Gaoping | Rizzo, Dylan |
| Hansen, Cedric | Myrdek, Douglas | Vadnais, Andrew |
| Lin, Gaoping | Rizzo, Dylan | |
| Myrdek, Douglas | Vadnais, Andrew | |
| Osborne, Ethan | | |
| Pericles, Sylvia | | |
| Rizzo, Dylan | | |
| Vadnais, Andrew | | |

| Quality Assurance | Requirements | Usability |
|---|---|---|
| Hansen, Cedric | Carroll, Michael | Breton, Raynier |
| Lin, Gaoping | Dominick, Tyler | Carroll, Michael |
| Myrdek, Douglas | Osborne, Ethan | Osborne, Ethan |
| Pericles, Sylvia | Rizzo, Dylan | Pericles, Sylvia |
| Vadnais, Andrew | | |

### 3.3. Document Conventions

This document was created based on the IEEE Recommended Practice for Software Requirements Specifications template. This particular copy is intended as a rough draft of the Software Designs finished product Requirements document.

# 4. References

IEEE. (1998). *IEEE Recommended Practice for Software Requirements Specifications*. New York, NY: Author.

Varvoutas, K. (2017). *Software Requirements Specification for Gephi.* Aristotle University of Thessaloniki, Thessaloniki, Serres, Greece: Gephi.org

# 5. Definitions

DataMea: an application in which can be installed compatible computers to then analyze a user's emails from an IMAP server.

Email Client: also known as mail user agent (MUA), is a computer program designed to read, write, and edit a user's email.

GUI: an acronym for Graphical User Interfaces, which is a designed display whose function is to display and intake information for a user aesthetically as possible.

IEEE: Institute of Electrical and Electronics Engineers, the world's largest organization made up of technical professionals that set global standards for electronics and advanced technologies.

IMAP: Internet Message Access Protocol, is a type of protocol used by certain email clients to fetch a user's emails from its server.

# 6. Overall Description

## 6.1. Product Perspective

This project was developed for SUNY Oswego's Software Design class. Specifically, it is designed for anyone who has an interest in generic statistics of their IMAP emails. DataMea analyzes the user’s IMAP email to then output the information on an easy-to-read dashboard with graphs and lists.

## 6.2. Product Functions

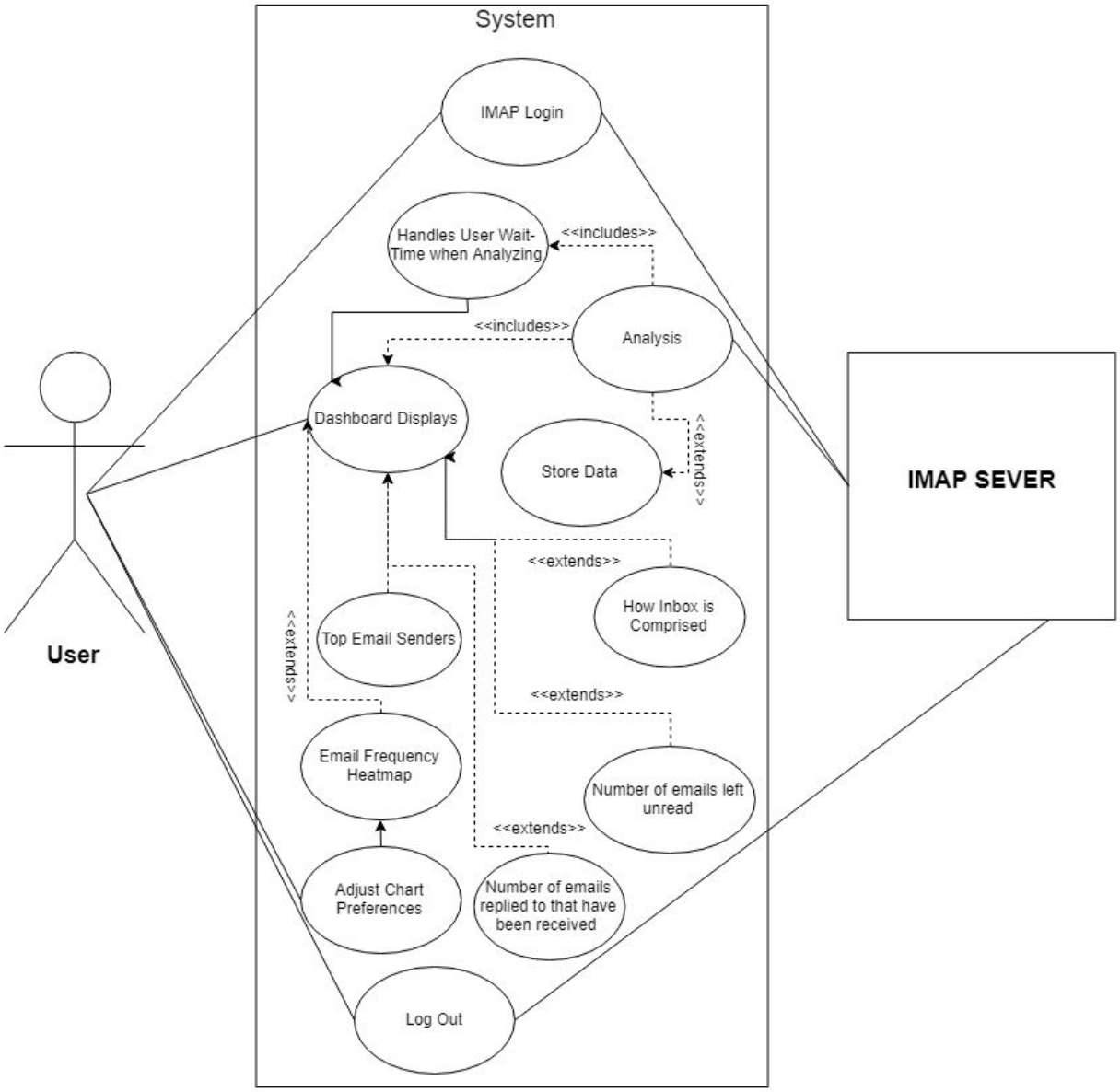
Analyze Email: the action of signing in to one's email via DataMea to then have the application analyze the IMAP data which will display on the product's dashboard automatically.

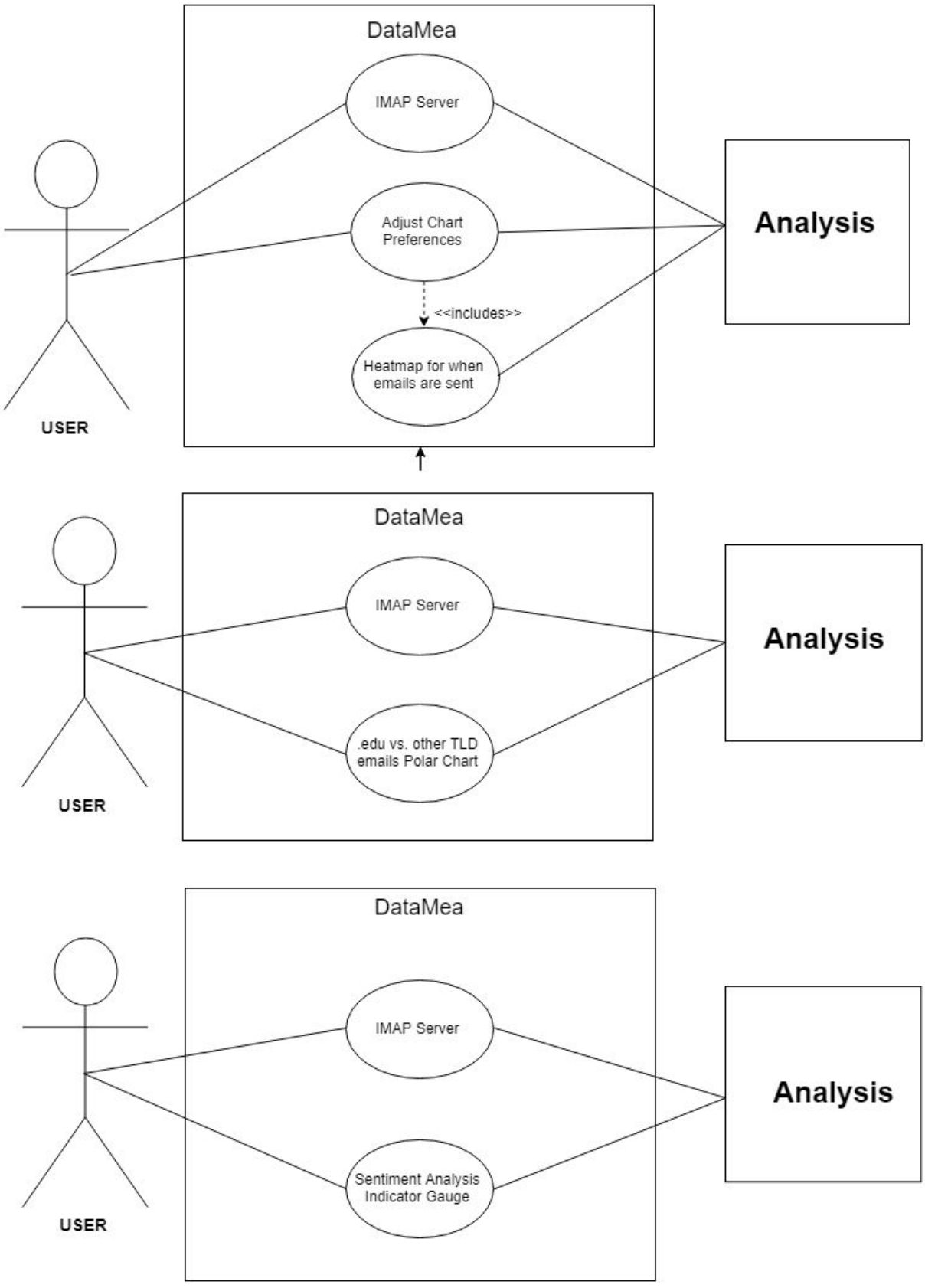
Exit: the action in which the application closes out of itself safely and ceases running on the user's device.

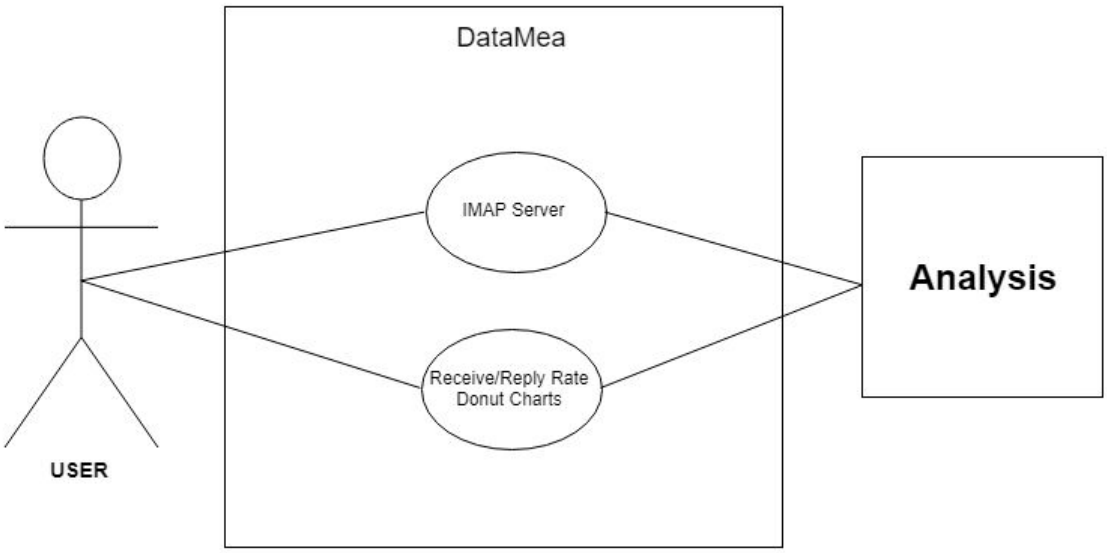
Store Data: <something>

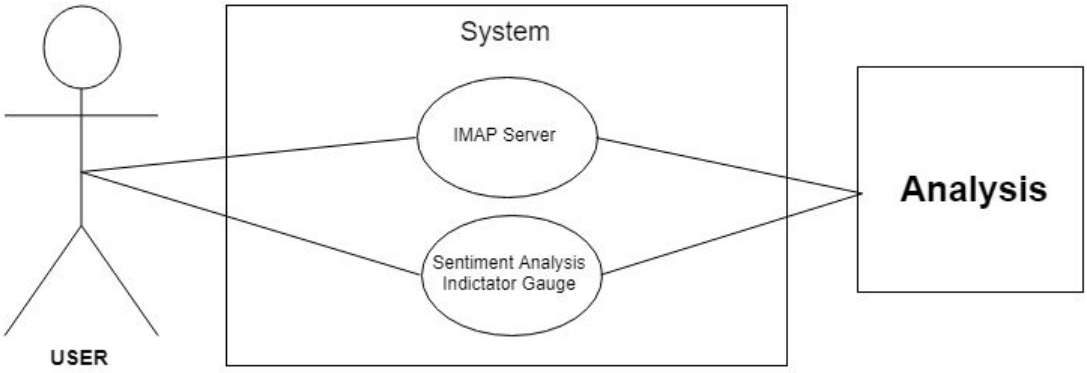
Process Request Waiting Screen: <something>

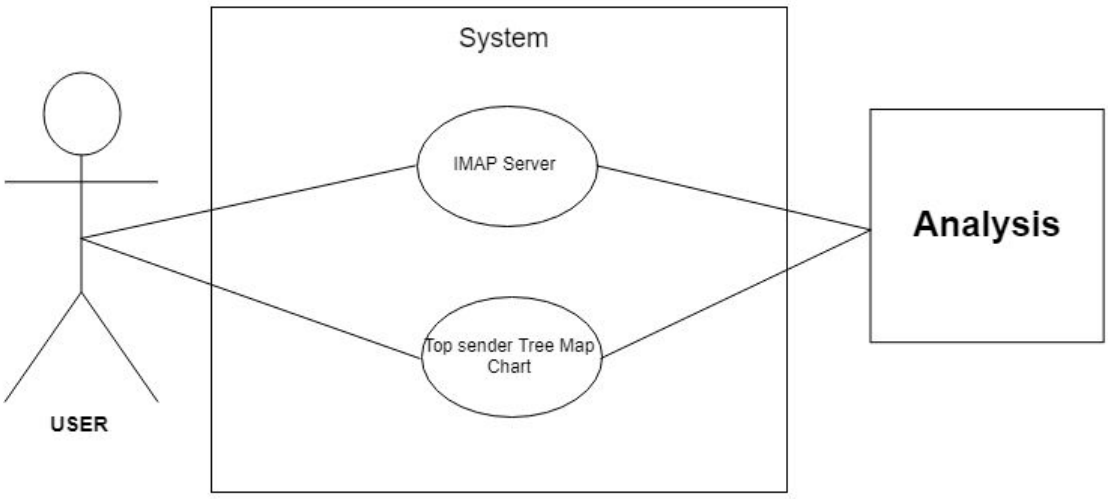
## 6.3. Use Cases

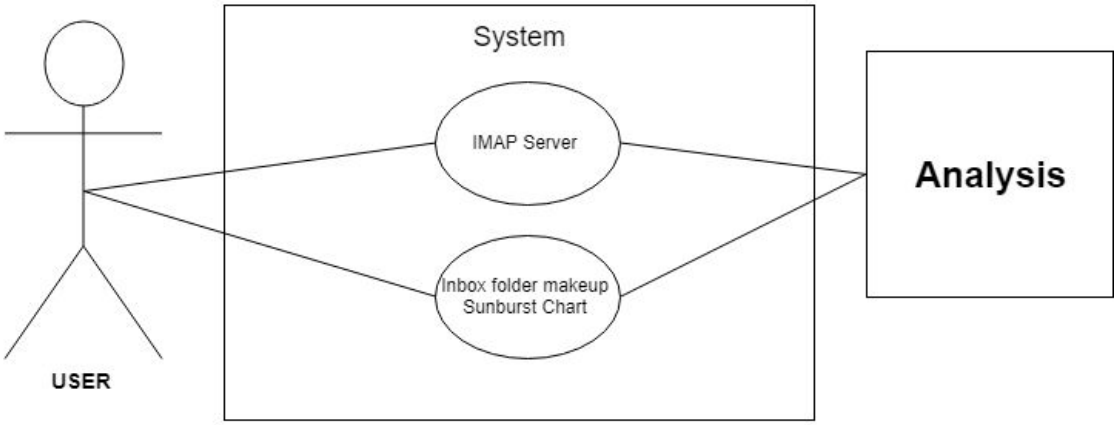

System
IMAP Login
Handles User Wait-Time when Analyzing
<<includes>>
<<includes>>
Analysis
Dashboard Displays
Store Data
<<extends>>
IMAP SEVER
<<extends>>
How Inbox is Comprised
User
<<extends>>
Top Email Senders
<<extends>>
Email Frequency Heatmap
Number of emails left unread
<<extends>>
Adjust Chart Preferences
Number of emails replied to that have been received
Log Out


DataMea
IMAP Server
Adjust Chart Preferences
<<includes>>
Heatmap for when emails are sent
USER
Analysis
DataMea
IMAP Server
.edu vs. other TLD emails Polar Chart
USER
Analysis
DataMea
IMAP Server
Sentiment Analysis Indicator Gauge
USER
Analysis

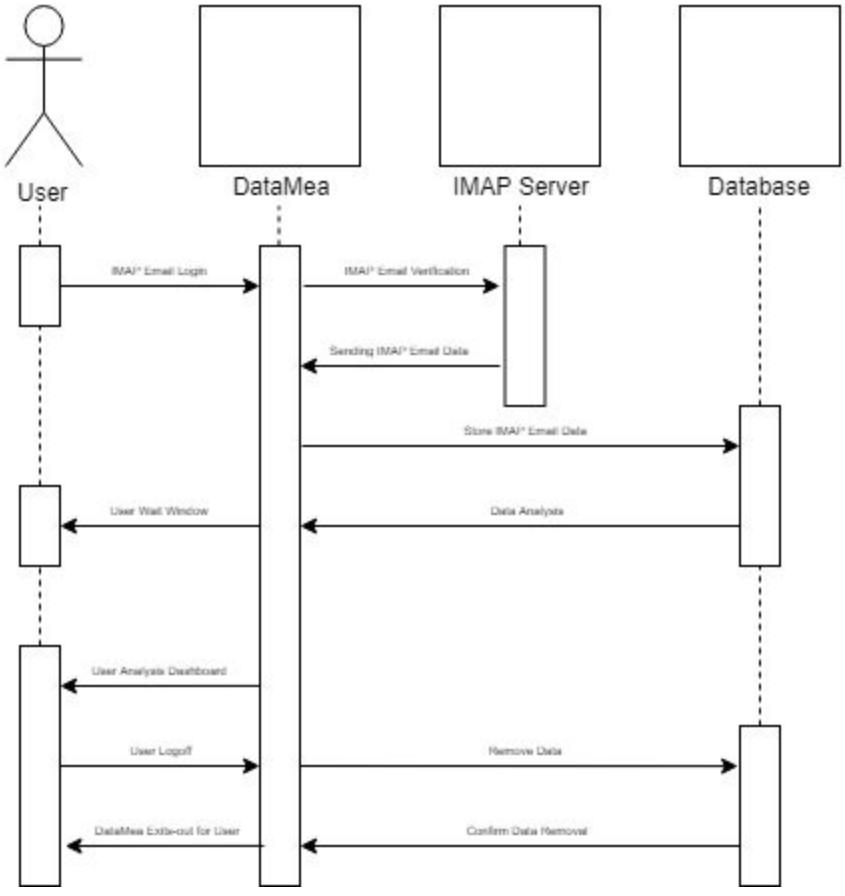

DataMea
IMAP Server
Receive/Reply Rate
Donut Charts
Analysis
USER

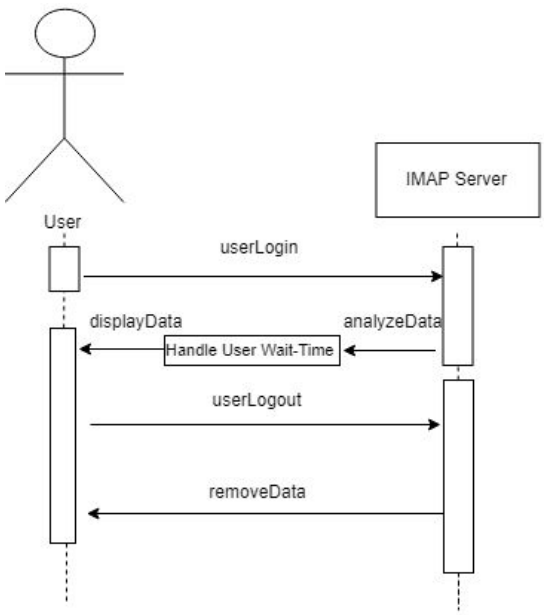

System
IMAP Server
Sentiment Analysis
Indictator Gauge
Analysis
USER

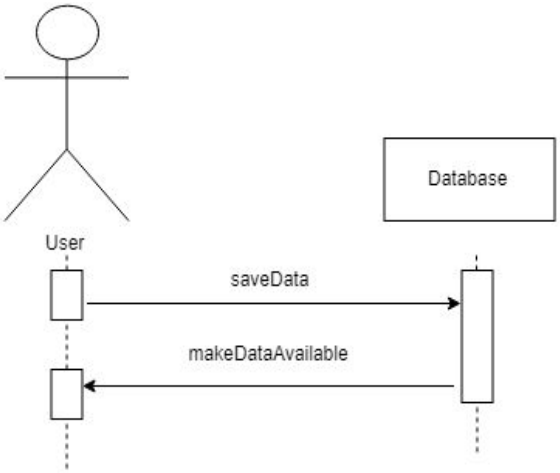

System
IMAP Server
Top sender Tree Map
Chart
Analysis
USER

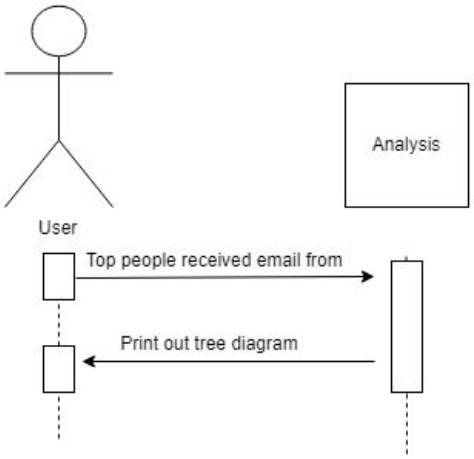


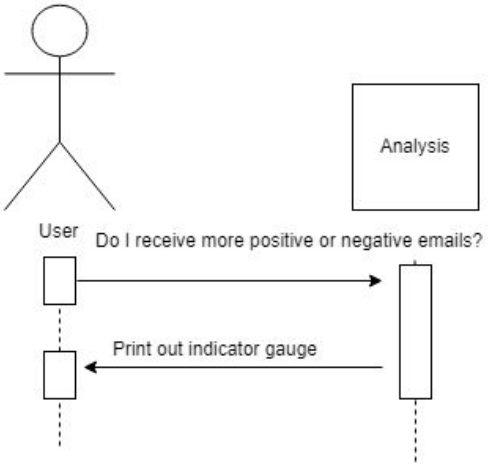

## 6.4. Sequence Diagrams

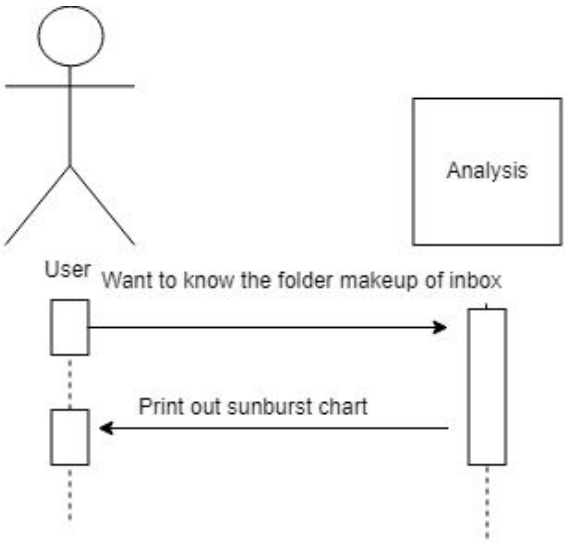


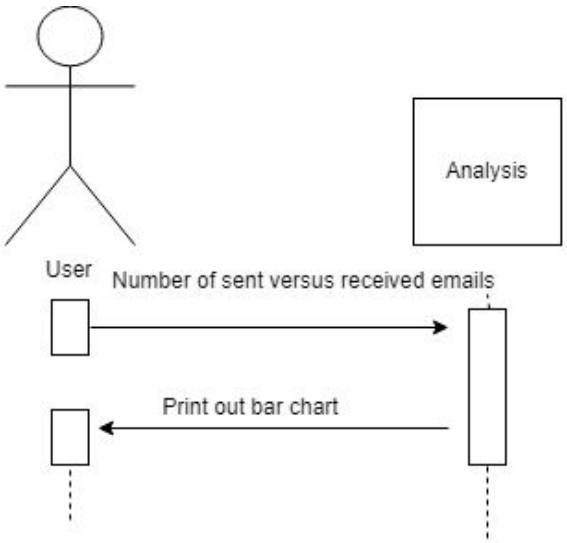

IMAP Server
User
userLogin
displayData
analyzeData
Handle User Wait-Time
userLogout
removeData

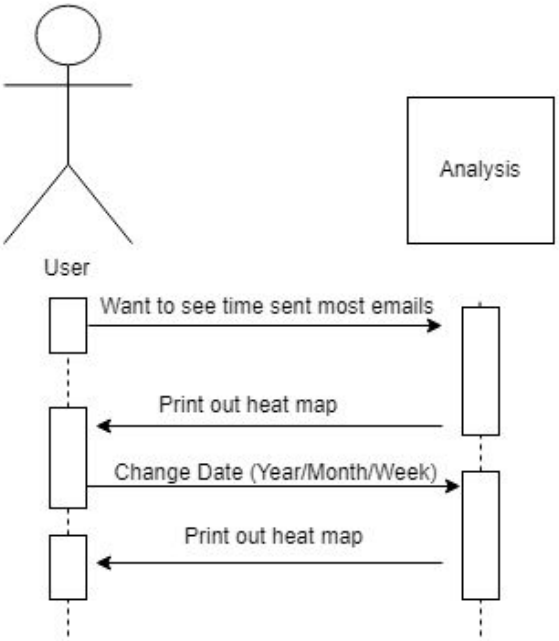

Database
User
saveData
makeDataAvailable

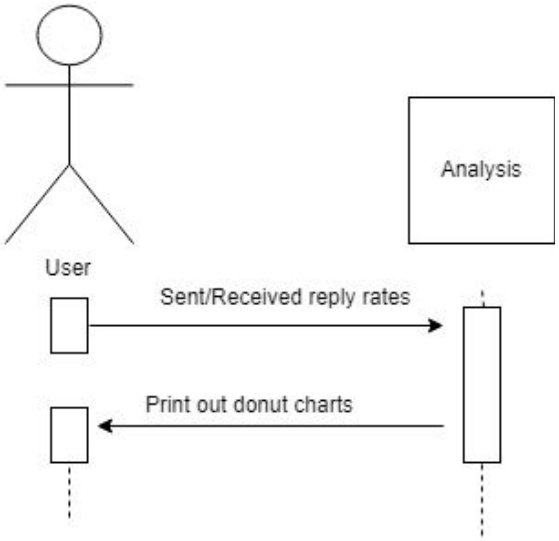

Analysis
User
Top people received email from
Print out tree diagram

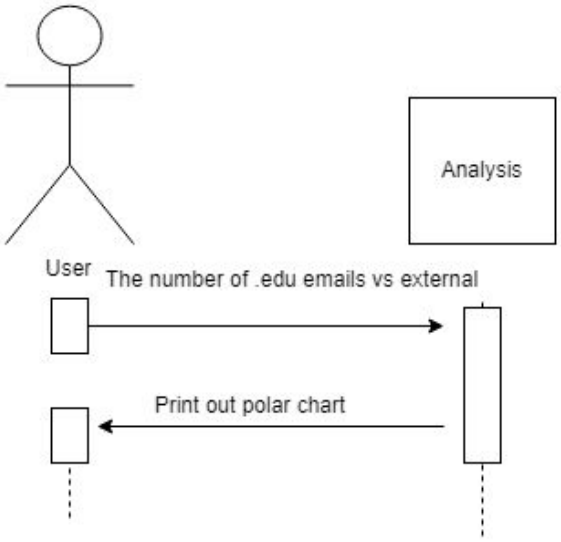

Analysis
User
Do I receive more positive or negative emails?
Print out indicator gauge


Analysis
User
Want to know the folder makeup of inbox
Print out sunburst chart


Analysis
User
Number of sent versus received emails
Print out bar chart


Analysis
User
Want to see time sent most emails
Print out heat map
Change Date (Year/Month/Week)
Print out heat map


Analysis
User
Sent/Received reply rates
Print out donut charts


Analysis
User
The number of .edu emails vs external
Print out polar chart

## 6.5. Operating Environment

DataMea is a desktop application that can be installed on Mac (<specify versions>), Windows (<specify versions>), and Linux (<specify versions>). The application will only analyze those email account that utilize Internet Message Access Protocol (IMAP).