Object Specification Report

**Class EmailClient**

Able to compose, open, delete, and send Emails

Emails will be automatically encrypted and decrypted

*Function \_\_init\_\_*

Initiates the Login screen

Login Screen Locked under username and password

Username and Password is users email address and password

Option for both Yahoo and Hotmail account

window=main program GUI window

windowtitle=”Email Client”

window.geometry=screen size 404x400

username=textbox for user input

password=textbox for user input

hotmail button=selects hotmail, leads to Hotmail function

yahoo button=selects yahoo, leads to yahoo function

*Function yahoo*

Sets email server to yahoo

*Function Hotmail*

Sets email server to hotmail

*Function Login\_Button*

Button to log in to main screen after inputting username and password

Leads to main screen or error popup if user did not input anything

*Function Main screen*

Main screen

Includes menu to compose, delete, and open screens

adds select menu to corner of screen

*Function Compose* Allows user to compose an email

text will be encrypted before sending

Recipient will be a target email

Subject will be the title of the email

Text will be the information of the message

Send through button

recipient=textbox for user input

subject=textbox for user input

text=textbox for user input

sendbutton=button that leads to send\_mail

*Function Open\_mail*

Opens mail by inputting title of email

If decryption is detected it will automatically decrypt text

text=file selected by user

insert text to window

*Function Open\_Error*

Error popup for if program cannot find mail

popup="Error", "No file found"

*Function General\_Error*

Generalized Error message

popup="Error", "An Error has Occurred"

*Function Delete\_mail*

Allows user to delete mail by inputting title of document

*Function delete\_file*

Deletes file based on what user inputted in Delete\_mail

system.delete(file)

find\_button=button that leads to delete file

title=file title

*Function send\_mail*

creates textdocument based on user input

encrypts textdocument

connects to server

sends to recipient

*Function Select\_mail*

Allows user to select which mail they wish to open by inputting title of document

title=file title

find\_button=button that leads to open\_mail

*Function Open\_mail*

Opens text file to screen based on what user selected

file=open file from user specification

if file is encrypted

decrypt=encryption(file)

file.decrypt

text= read text on file

insert text to screen

*Function Code\_cleaner*

Clears screen of all previous text, buttons, input boxes

Called before every function to refresh screen before going to new screen

**Class Encryption**

*Function \_\_init\_\_*

Initiates class

opens text document to allow encryption and decryption

generates 4 random numbers to encrypt text by

*Function Encrypt*

creates new text document

adds code numbers to new document

encrypts text based on cipher and writes to new document

*Function Decrypt*

Decrypts text document based on cipher