QualityArc
Assure.Innovate

Email Remover

Readme

Version 1.0
22/06/2020

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1. Introduction

EmailRemover Bot is a bot to help user to clean their email inbox from unwanted emails, specifically for Gmail users. User can delete specific email address based on the date when the email is received or just let the bot run default. In this case, the bot will delete all the no-reply emails and emails that already in the history or has been deleted previously. The bot also can remove the target email address in the inbox in specific month, however the searching email is limited up to 600 emails, for the bot performance reason.

1.1 Overview

EmailRemover Bot checks the target email from TargetEmail.csv as well as ExceptionEmails.csv and validate the date and email address. If the date and email address are valid then the Bot will search the email in user Gmail inbox and delete the email if the condition is reached. The bot will store the deleted email in history file for future preference when the bot run in default mode.

The detail steps of the process are as below:

1) Read the target email from TargetEmail.csv

2) If the TargetEmail.csv not empty, validate the email address and the date with condition:

   - Check whether the day is empty or not. If not empty check whether the day is a valid day or not.

   - Check whether the month is empty or not. If not empty check whether the month is a valid month or not.

   - Check whether the year is empty or not. If not empty check whether the year is a valid year or not.

   - Check whether the email address is empty or not and validate the email address.

3) If the date and email address has checked then login to user email and search the target email and delete it.

4) If the TargetEmail.csv is empty, then login to user email and delete default emails.

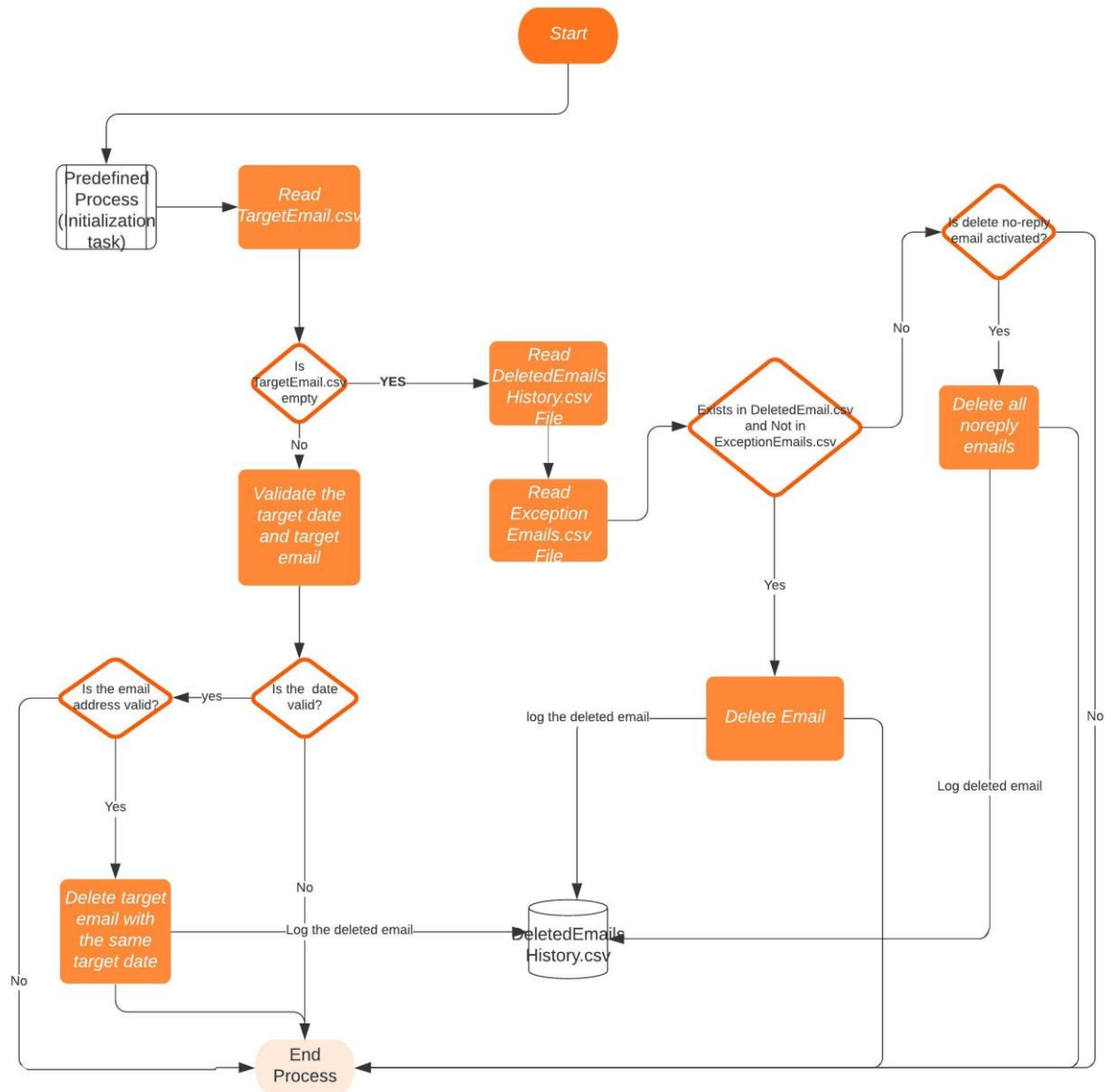   There are two types of default emails:

   a. The default emails that already in DeletedEmailsHistory.csv. These emails will be automatically deleted, except, if that email exists in ExceptionEmails.csv.

   b. The emails that are categorized as **no-reply** emails. The user has option to activate whether they want to delete this no-reply email or not. This option can be set in config.txt, "Yes" to delete no-reply email and by default the option will "No". This option will not delete the no-reply email,

5) Save the new deleted email address to DeletedEmailsHistory.csv, if it is not exist in DeletedEmailsHistory.csv.

Visual Flow

PersonalGmaiBot Flowchart

Martina Yulianti | August 24, 2020

Input and Output Example

Input: TargetEmail.csv

Output: DeletedEmailsLog.csv and DeletedEmailsHistory.csv

DeletedEmailsLog.csv

DeletedEmailsHistory.csv

1.2 Common Use cases

1. A common use case, the user schedule the bot to clean the inbox from the no-reply emails that comes and email addresses that in DeletedEmailsHistory.csv daily.

2. User can leave the TargetEmail.csv empty, therefore the bot will put in default mode to clean the inbox by reading the DeletedEmailsHistory.csv and find all the no-reply emails in user inbox, if the option to delete no-reply email is activated.

3. User can delete specific email address and specific date in their Gmail inbox and delete it. Or delete one email in specific month.

4. If user have access to control room then user can schedule the Bot to clean the Gmail inbox regularly, e.g. daily, weekly, or monthly (recommended: daily schedule).

2. Requirements & Prerequisites

2.1 System Requirements

For the PC or laptop where the bot needs to run:

- ✓ RAM: 8Gb or higher.
- ✓ Processor: Intel Core i5 or higher and equivalent for any other OS.
- ✓ Hard Disk: Up to 2 GB of overall free space in the AA Client installation drive.

2.2 Prerequisites

Reference below for Enterprise Client and Control Room system requirements.

Software needed:

- ✓ AA Enterprise Client 11.x
- ✓ AA Enterprise Control Room 11.x

Account/License needed:

- ✓ Gmail account
- ✓ AA enterprise license

2.3 Security Measures

There are some security best practice recommendations that you may follow with your bot.

1. For user's email address and email password, it is recommended not using credential locker, but using config.txt that stored in project folder considering the purpose is for personal use.
2. It is highly recommended to activate two-step verification in Gmail account and create **app password** for the bot, therefore the bot is not sharing the same password with real user password.
3. If the user chooses to not activate the 2-step verification and uses **Less secure app**, make sure user change the password regularly for safety reason, since the bot uses the user's Gmail password.

3. Getting Started

3.1 Skill Matrix

The functionality of the bot has been divided into set of skills.

Below is overview of how the task bots and metabots map to these skills:

Skill	Task bot files	MetaBot files
Read and write text files for Gmail configuration and user credential for Gmail account.	01-Initialization.atmx	No MetaBot
Read and write csv files as input data and access user Gmail account for deleting the emails based on the condition.	02-MainTask	PersonalGmail.mbot
Checking log files in the folder	03-CleanTheLogs.atmx	PersonalGmail.mbot

3.2 Installation Hierarchy

Once the bot is downloaded and installed, the installer creates the files in the folder structure as shown below.

Folder Structure on Your Machine

Folder Structure	Description
\<AA Application Path\>	**\<AA Application Path\>** is the location where AA files are stored on your machine.
1. My Tasks	**1. My Tasks** My Tasks folder is the default directory where Bot Files are saved.
1.1 Bot Store	**1.1 Bot Store** Bot Store folder contains the Bot Name folder which the installer creates while installation of the Bot.
1.1.1 EmailRemoverBot	1.1.1 EmailRemoverBot This folder gets created by the installer and contains files and folders needed for the bot execution.

❖ **Error Folder**
  ▪ **Logs**
    o Err Day-Month-Year.txt
    o InvalidEmails_Day-Month-Year.txt
  ▪ **Snapshots**
    o Day-Month-Year _LineError:Description.png

❖ **Input Folder**

❖ **Error Folder** is where logs and snapshots of screens will be placed if something goes wrong with the bot during execution. There are two type of error logs which Err Day-Month-Year.txt for bot error and InvalidEmails_Day-Month-Year.txt for invalid target email input.

❖ **Input Folder** is where the input files that the bot needs for execution of the use case is saved.
  • TargetEmail.csv is where the specific email that wants to be deleted.
  • DeletedEmailsHistory.csv is where all the email addresses that have been deleted are saved for future preference.
  • ExceptionEmails.csv is list of email addresses that will not be deleted by the Bot.
  • Config.txt is where the hostname and port number for email to be setup for the bot to run.
  • Credential.txt is where the user's email address and password for bot to be able to login and accesses email server.

❖ **My Tasks**
  • EmailRemoverBot.atmx
  • 01-Initialization.atmx
  • 02-Main.atmx
  • 03-CleanTheLogs.atmx

❖ **Output Folder**
  • Attachment Folder
  • DeletedEmailsLog.csv

❖ **My Tasks** folder contains all the Developed platform source code.

❖ **Output Folder**
  • Attachment Folder is to store email's attachment that has been deleted by Bot, in case there is important file for user.
  • DeletedEmailsLog.csv is log file that store information, such as date, from and subject, of the email that has been deleted.

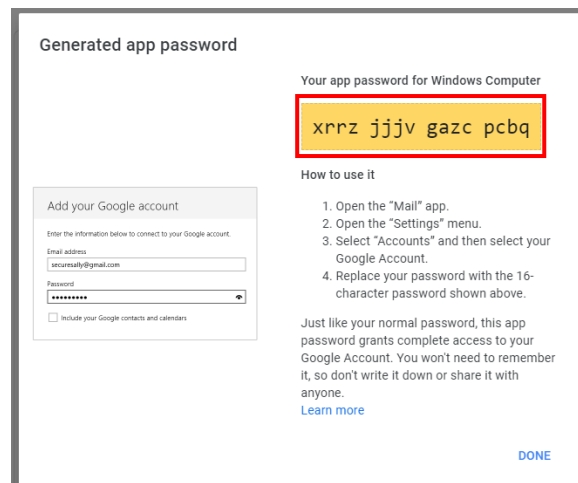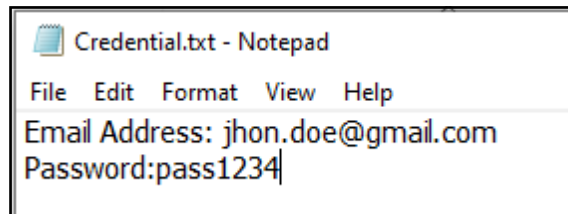|	
2. **My MetaBots** ❖ **PersonalGmail.mbot**	2. **My MetaBots** folder contains the Developed Metabots needed for the bot execution.

3.3 Quick Start

3.3.1 Setup

To use this bot, there are some steps that user must follow:

1. Install AAE v11.3.3 client tool or higher in their machine/laptop.

2. Create username in AA Control Room as Bot Creator or Bot runner to run this Bot and give the right role for the username.

3. Before running the Bot, make sure that user's username has access to run metabot file. Check username privileges in AA Control Room, if username does not have this right role or privileges, the Bot cannot run properly.

4. Prepare the user Gmail account. If user has activated the two-step verification in their Gmail account, then user must create **app password** to give access to the Bot to use the Gmail account.

   a. To see, whether user has two-way verification **on** or **off**, go to Gmail account -> security -> 2-Step verification (On or off)

   b. If 2-Step verification On, click App Password -> select app (Mail) -> select device (windows comp) -> click generate. Keep the password that generated from here. **Use this password for login to email from the bot**.

   c. If 2-Step verification Off, go to **Less Secure app access** section, as default it will turn off. Turn **On** this function in order the bot can access the Gmail account.

5. After downloading the EmailRemover Bot from Bot Store and install the Bot, make sure the project folder is in the Bot Store Folder.

6. After install the Bot, open the EmailRemoverBot folder > My Tasks > double click **EmailRemoverBot.atmx** (or click run), to run the Bot for the first time. The Bot will create structure folders and files that needed for the process: Config.txt, DeletedEmailHistory.csv, ExceptionEmails.csv and TargetEmails.csv and Credential.txt. The Bot will not delete any email for the first run.

7. Go to My Docs > EmailRemoverBot folder, copy Credential.txt file to EmailRemoverBot folder > Input Folder, then open Credential.txt. In the Credential.txt file edit the Email Address and Password with user's email address (Gmail acc) and password to login to Gmail account. If user did not create **app password**, then use user's original password to login the Gmail account.

8. If user cannot find Credential.txt in My Docs for some reasons, it can be created manually with this format (see below picture) and save it in Input Folder with the name "Credential.txt".
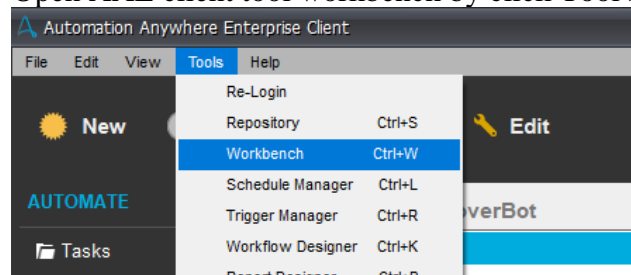

9. In "Config.txt" file, user can edit the option to delete **no-reply** emails but set the value "Yes" (will delete the email) or "No" (will not delete the email). By default, it will set to "No".

10. If all files are configured, the Bot is ready to run. Click **EmailRemoverBot.atmx** again to run, user can use the TargetEmail.csv to delete specific emails or just leave it empty, or if update the DeletedEmailsHistory.csv directly manually, if the user always want to delete specific email without input the date.
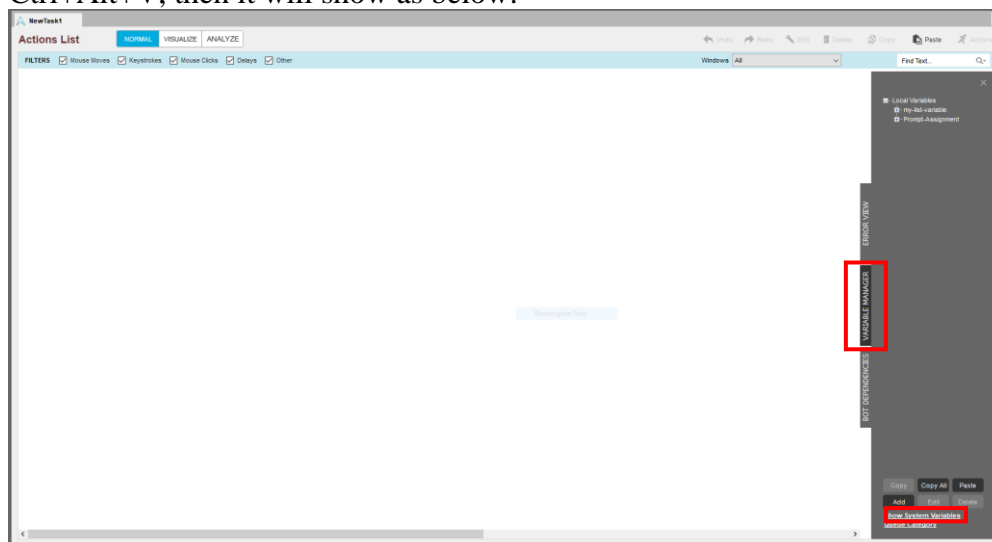
3.3.2 Configuration

Configure system date in AAE client tool

The bot use date format **mm/dd/yyyy** to search specific email date, therefore make sure to use this format for Bot to execute the target email correctly. How to check and change the system variable date format in AA client tool, follow these steps:
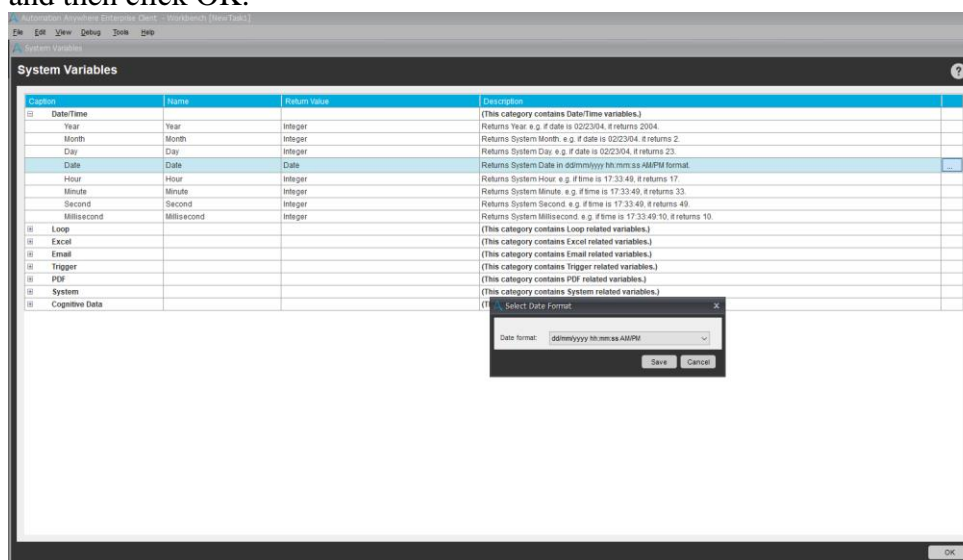
1. Open AAE client tool workbench by click Tool > Workbench in toolbar.

2. Click **Variable Manager** tab on the right side of the window or press Ctrl+Alt+V, then it will show as below:

3. Then click **Show System Variables** on the bottom of the Variable Manager window as shown in the picture above.

4. The System Variable window will show up, in there click **Data/Time** option, choose **Date**, the on the right side of Date click ⋯ button, the date format option will show. Change the format date to mm/dd/yyyy hh:mm:ss AM/PM and then click OK.

5. For Bot runner username, this option is not available in client tool. But, by default the system date is already formatted to mm/dd/yyyy hh:mm:ss AM/PM. If not, that means the delete email with specific date feature cannot be used, but user can still use the Bot to delete the unwanted emails, just update the DeletedEmailsHistory.csv manually in Input Folder.

Configure with an external file

User does not to configure email credential using credential vault in the control room since it only keeps in the Credential.txt to make it ease of use.
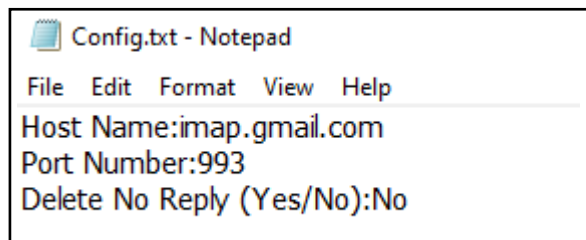
External files can be configured at:

AA Application Path > Automation Anywhere > My Tasks > Bot Store > EmailRemoverBot-QualityArc > Input Folder > Config.txt
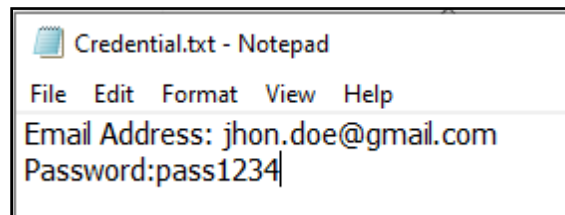
and another file

AA Application Path > Automation Anywhere > My Tasks > Bot Store > EmailRemoverBot-QualityArc > Input Folder > Credential.txt

This Config.txt file contain Host name and port number for the email server as well as option to delete **no-reply emails**. Below is the how the Config file looks:

The Credential.txt file contains the user's email address and password that user has prepared it previous. Below is the how the Credential file looks:

By default, if the Config file does not exist or first time run, the Bot will create the Config file and set the value for host name and port number for Gmail server to imap.gmail.com and 993 consecutively.

However, if user wants to use the bot for Outlook mail, they can change the host name to **outlook.office365.com** and port number with **993**. In the Config.txt, these values will be variable values that need to be defined as per user's mail.

To configure Credential.txt for the first time, user must run the bot right after installing the EmailRemoverBot to create structure folder. If the Input Folder already exist, then user can add Credential.txt manually or copy from My Docs to Input Folder.

Below is a table that summaries what the variable name is, what it does, and an example of the input and output:
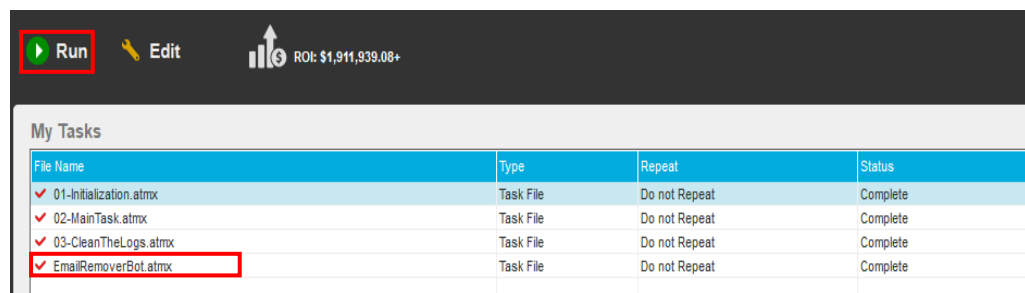
Input Variables: Needs to be configured by the users for input parameter				
Variable name	**Type**	**Mandatory (Yes/No)**	**Purpose**	**Example Input**
vHostname	text	Yes	hostname for email server configuration	imap.gmail.com
outnumbers	text	Yes	port number of email server configuration	993
vInputFileName	text	Yes	File name for deleting specific email which Bot reads the value from	TargetEmail.csv
vUserEmailAddress	text	Yes	valid email address which Bot will use to login (preferred Gmail account)	jhon.doe@gmail.com
vPassword	text	Yes	password used to login to email address	pass1234
vMainFolderPath	text	Yes	Main file path of the project where all the files are saved	$AAApplicationPath$\Automation Anywhere\My Tasks\Bot Store\EmailRemoverBot

Output Variables: Displays Output Response				
Variable Name	**Type**	**Mandatory (Yes/No)**	**Purpose**	**Example Output**
vNoTargetEmail	Boolean	Yes	Indicate flag whether the TargetEmail.csv empty or not	FALSE
vDeleteEmailSuccessful	Boolean	Yes	Indicate flag whether the email has been deleted or not	TRUE
vInitFlag	Boolean	Yes	Indicate flag whether Initialization subtask	TRUE

			completed or not	
vMainTaskCompleted	Boolean	Yes	Indicate flag whether Main subtask completed or not	TRUE
vCreateFileSuccessful	Boolean	Yes	Indicate flag whether MetaBots logic to create file successful or not after delete the email	TRUE

3.3.3 How to use the bot

To run the EmailRemoverBot, go to **AA Application Path** > My Tasks > Bot Store > EmailRemoverBot-QualityArc > My Tasks, as shown below:

There will be four atmx file, double click master file atmx which is **EmailRemoverBot.atmx** or click Run button AAE client toolbar. This will run the Bot as default mode, the Bot will delete all the no reply emails (if the option is enabled) from inbox and email that already in the DeletedEmailsHistory.csv.

If user wants to delete specific email on certain date, user must fill it in the TargetEmail.csv. Below is a guidance how to set the target email in TargetEmail.csv:

Guidance for setting target email are described below:

There are several ways that user can target the specific email:

1. User can input the full date: day, month and year of the target email and the email address in the column that already provided.

   Note: The date that the Bot read is the date from email server (actual date that the email sent originally). Email date that usually shown in the Gmail inbox is system date (local datetime) that is different with the original date. Therefore, to make sure Bot can reach the target email, put the date a day before as well to make sure Bot can find it correctly. Example: the target email is 24/06/2020, then create another one for 23/06/2020 or depend on your location, can be the day after it.

2. If user want to delete specific email in the current month, then user can let the day column empty. For example: today month is June and user want to delete email from jane.doe@abc.com in that month. This how user can set the date in TargetEmail.csv

3. If user leave the date empty or only year and email address is valid, then the Bot will delete the target email for today date.

4. For invalid date email but valid email address, the Bot will skip this target email and run the next target email. If there is no target email in this TargetEmail.csv, then the Bot will run default mode, which is delete all the no-reply email and email that is in the DeletedEmailsHistory.csv

   The same procedure will happen if the email address is invalid, such as invalid domain email. For example: crosswalk@crosswalk.cpm

   All the invalid date and invalid email will be log to InvalidEmails_Day-Month-Year.txt log file.

The error log output

4.   Reports

There is no Bot Insight Reports generated for this Bot.

5. Logs

In the case of Errors, Error Logs and Snapshots are generated within Error Folder.

- My Tasks
  - Bot Store
    - Bot Name
      - Error Folder
        - ✓ Logs (Folder)
          - ❖ errDay-Month-Year.txt
          - ❖ InvalidEmails_Day-Month-Year.txt
        - ✓ Snapshots (Folder)
          - ❖ Day-Month-Year_ErrorLine:Description.png

Error logs in the errDay-Month-Year.txt is for bot error message and it will contain the below information:

- Generated Timestamp
- Task Name
- Error Line Number
- Error Description

Whilst error log in InvalidEmails_Day-Month-Year.txt is to inform user the invalid input email address or input email date.

Example of Log File:

Example of Snapshots

6. Troubleshooting & Support

Support

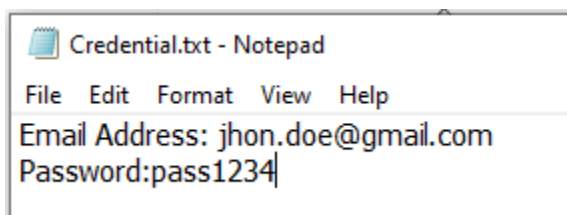Free bots are currently not supported directly.

Questions on Bot Functionality or Feature can also be posted to our community site Apeople.

Automation Anywhere provides a Product Documentation portal which can be accessed for more information about AA's products and guidance on building bots and Digital Workers.

FAQs

Q: The bot stops running for the first time because "unable to locate the Credential.txt". What should I do?

A: Create the Credential.txt in the Input Folder: **AA Application Path** > My Tasks > Bot Store> EmailRemoverBot-QualityArc > Input Folder > Credential.txt. The Credential.txt contains information Email address and Password. Below is the Credential.txt

```
Credential.txt - Notepad
File  Edit  Format  View  Help
Email Address: jhon.doe@gmail.com
Password:pass1234
```

Q: The bot stops running and gives message "invalid username". What should I do?

A: Check Credential.txt and make sure the email address is correct and the password that given is already follow the setup procedure in section **3.3.1** and follow the step number 4.

Q: The bot unable to delete the specific email in TargetEmail.csv even though the email is existing in the Gmail inbox. What should I do?

A: Make sure the system date in AAE client tool is the right format, check page 11, how to configure system date in AAE client too.

Q: The bot still unable to delete the specific email in TargetEmail.csv even though the system date format already corrects. What should I do?

A: The date that Bot check is the original date of the email, not the date in Gmail shows in the inbox. Just add or subtract one day depend your country time zone to avoid this issue.

Appendix A: Record of Changes

No.	Version Number	Date of Change	Author	Notes
1.	1.0	30/06/2020	Martina Yulianti	Version 1 Release
2	1.1	25/08/2020	Martina Yulianti	Version 1.1 Release

Appendix B: Acronyms

No.	Acronym	Description
1.	AA	Automation Anywhere
2.	CSV	Comma Separated File
3.	RAM	Random Access Memory
4.	OS	Operating System

Appendix C: References

No.	Topic	Reference Link
1.	System Requirements - Client	Click here
2.	System Requirements – Control Room	Click here
3.	Apeople Community Site	Click here
4.	Product Documentation portal	Click here