

User Documentation: Searchable Email Storage using Elasticsearch

Introduction

This application **fetches emails from an IMAP server (like Gmail, Outlook, etc.), stores them in Elasticsearch, and allows searching and filtering of emails** based on subject, content, sender, folder, and account.

System Requirements

1 Install Dependencies

Make sure you have the following installed:

- ✓ **Python 3.8+** → [Download Python](#)
- ✓ **Elasticsearch 8.x (without Docker)** → [Download Elasticsearch](#)

2 Install Python Libraries

Run the following command in your terminal or command prompt:

```
pip install elasticsearch imapclient email
```

Setup & Configuration

1 Configure Email Settings

In the script, update these details:

```
EMAIL_ACCOUNT = "your_email@gmail.com"
EMAIL_PASSWORD = "your_app_password" # Use an App Password for
security
IMAP_SERVER = "imap.gmail.com" # Change for Outlook/Yahoo
```

- **For Gmail:** Use **App Passwords** (Guide Here)
- **For Outlook:** Use "imap-mail.outlook.com" as IMAP server
- **For Yahoo:** Use "imap.mail.yahoo.com"

2 Start Elasticsearch

If you installed Elasticsearch manually:

- **Windows:** Run `elasticsearch.bat` from the bin folder
- **Mac/Linux:** Run `./elasticsearch` from the bin folder

Verify by visiting:

`http://localhost:9200/`

Running the Script

Run the script in a terminal:

```
python script.py
```

It will:

- ✓ **Create an Elasticsearch index** if not already created.
 - ✓ **Fetch emails from your IMAP account** and store them in Elasticsearch.
 - ✓ **Allow searching & filtering emails.**
-

Features & How to Use

1 Searching Emails

Search emails using keywords:

```
search_emails("meeting")
```

- ✓ Returns emails containing **"meeting"** in **subject or content**.

2 Filtering Emails by Folder & Account

Filter emails in **Inbox** for a specific account:

```
filter_by_folder_account("INBOX", "your_email@gmail.com")
```

-  Returns all emails from **Inbox** of the specified email account.
-

Troubleshooting & FAQs


1 Elasticsearch Connection Issue?

 Check if Elasticsearch is running:

```
curl -X GET "http://localhost:9200/"
```


If it's not running, start it manually.

2 Email Login Fails?

 If using **Gmail/Outlook/Yahoo**, enable **App Passwords** (Guide).

3 No Emails Are Being Fetched?

 Make sure the **IMAP server details are correct**.

 Try **lowering security settings** (Gmail may block IMAP by default).

Conclusion

You now have a **fully working email storage & search system** using Python and Elasticsearch!