



# LINKEDIN OUTREACH AUTOMATION

## TECHNICAL IMPLEMENTATION GUIDE

### Abstract

A LinkedIn automation tool that extracts competitor post likers, retrieves their details, filters potential leads, and updates Google Sheets with a web-based control panel.

Wishah Naseer

ahmadwishahnaseer@gmail.com

Table of Contents

OVERVIEW:..... 2

TECH STACK:..... 2

STEP-BY-STEP GUIDE: ..... 2

1. RESEARCH & APPROACH: ..... 2

2. INITIAL STEPS: ..... 2

3. SLOTS DESCRIPTION & EXECUTION:..... 2

Slot 01: Extract Competitor Post Likers: ..... 2

Slot 02: Extract Liker Details: ..... 4

Slot 03: AI Enrichment for Potential Fit: ..... 5

SLOT 04: LINKEDIN MESSAGE SENDER:..... 8

4. BACKEND SYSTEM: ..... 10

Directory Structure: ..... 10

5. FRONTEND UI:..... 11

6. FINAL FLOW SUMMARY: ..... 11

7. WORKFLOW: ..... 12

## OVERVIEW:

This project is a LinkedIn automation tool built to:

- Extract likers from competitor posts.
- Screen their LinkedIn profiles.
- Filter potential leads using AI.
- Send them personalized messages.
- Integrate results into Google Sheets via a clean web interface.

## TECH STACK:

- **Automation Tool:** PhantomBuster
- **Backend:** Python (Flask)
- **Frontend:** HTML/CSS
- **Data Storage:** Google Sheets
- **Utilities:** YAML, Requests, OAuth2, Phantom API

## STEP-BY-STEP GUIDE:

### 1. RESEARCH & APPROACH:

- LinkedIn's official API does not allow reading others' company posts.
- PhantomBuster enables automation of LinkedIn interactions.
- AI logic for filtering uses PhantomBuster's custom prompt capabilities

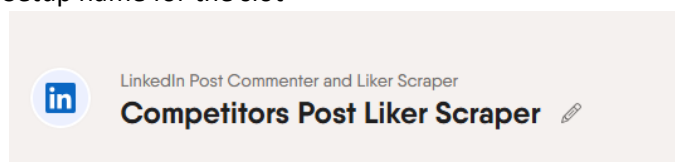
### 2. INITIAL STEPS:

1. PhantomBuster:
  - Create account on [PhantomBuster](#).
  - Generate [API](#) Key.
  - Enable Developer mode. ([Developer Hub](#))
2. Google Sheets:
  - Create a service account.
  - Share the sheet with the service account email.

### 3. SLOTS DESCRIPTION & EXECUTION:

Slot 01: Extract Competitor Post Likers:

- This phantom slot allows you to scrape all the commenters and likers on competitor's recent post.
- Input is Competitor Company LinkedIn URL.
- Configuration:
  - Setup name for the slot



- Choose the option and the competitor's linkedIn URL to scrape competitor's engagement.

The screenshot shows the 'Competitors Post Liker Scraper' interface. On the left, a sidebar contains a progress indicator with three steps: 'Choose the source to scrape' (active), 'Connect to LinkedIn', and 'Behavior'. Below the progress indicator are links for 'Advanced settings', 'Setup demo video', and 'More information about this Phantom'. The main content area is titled 'Choose the source to scrape' and includes a link to 'Check the full details of what will be extracted'. There are four buttons: 'LinkedIn Company Page' (highlighted in blue), 'LinkedIn Profile Page', 'Single LinkedIn Post URL', and 'LinkedIn Post Search'. Below these is a text input field for the LinkedIn URL, containing 'https://www.linkedin.com/company/getmaintainx/posts/?feedView=all'. A note states: 'Use this source to reach out to leads engaging with posts of your own company or from a competitor company.' At the bottom is a 'Save →' button.

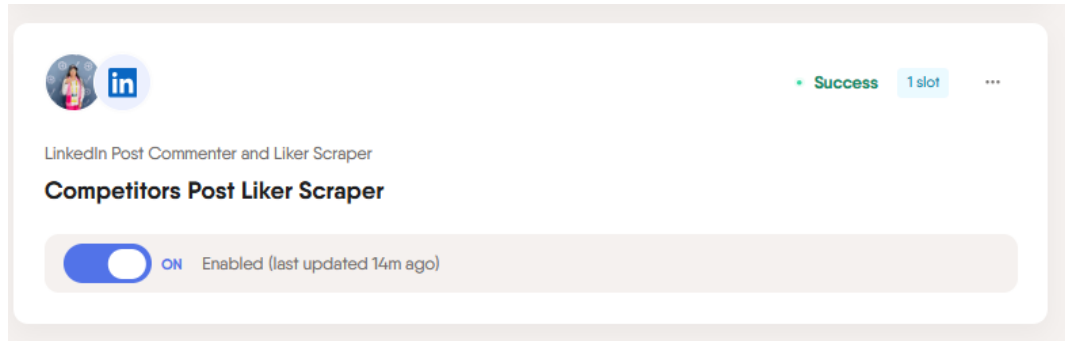
- Choose your linkedin account.

The screenshot shows the 'Connect your LinkedIn account' step. The sidebar progress indicator now shows 'Choose the source to scrape' and 'Connect to LinkedIn' (active), with 'Behavior' below. The main content area is titled 'Connect your LinkedIn account' and displays a user profile for 'Wishah Naseer Ahmad' with a 'Linkedin subscription: Basic (free)' and a 'Detected by the extension' dropdown. At the bottom are '← Back' and 'Save →' buttons.

- Select what data you want to extract and setup date after when you desired posts were published.

The screenshot shows the 'Behavior' step. The sidebar progress indicator shows 'Choose the source to scrape', 'Connect to LinkedIn', and 'Behavior' (active). The main content area contains a note: 'This automation extracts likers and commenters separately. It focuses on the post with the most new likes or comments. So, profiles that both liked and commented won't appear together right away.' There are two checkboxes: 'Commenters' (unchecked) and 'Likers' (checked). Below is a toggle for 'Push contact updates to HubSpot', which is currently turned off. A section titled 'Scraping advanced settings' includes a checkbox 'Only retrieve posts published after a specific date' (checked) and a date input field '07-13-2025'. At the bottom are '← Back' and 'Save →' buttons.

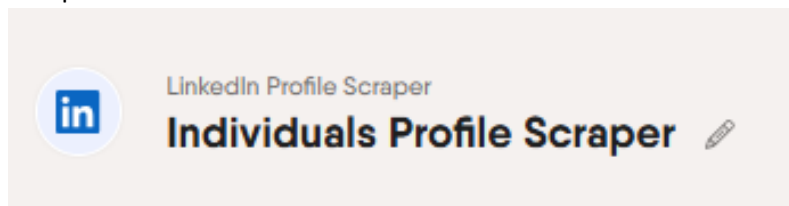
- Click save and this is how your slot will look like on dashboard



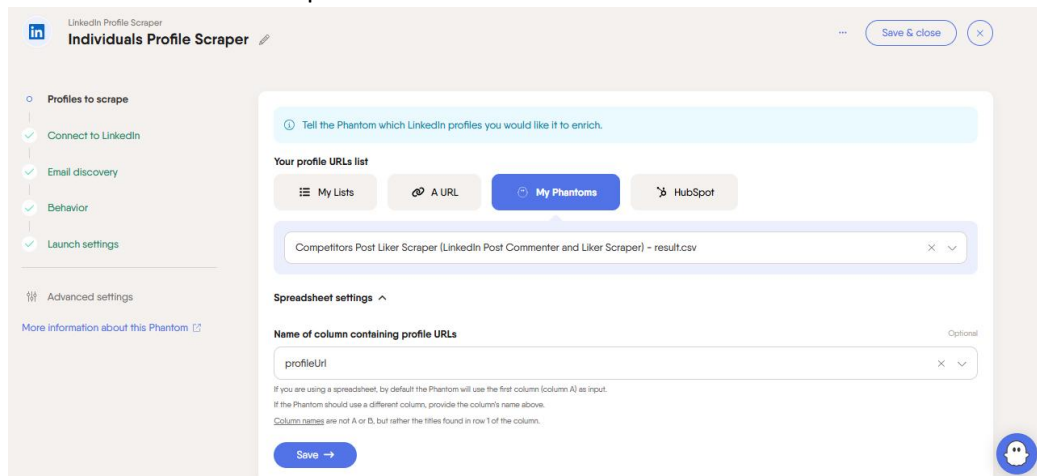
- You can update the settings anytime you want and save it. This slots data will be saved inside it. As it is not useful to store somewhere so we will not download it we will directly use it.

#### Slot 02: Extract Liker Details:

- LinkedIn Profile scraper screens the profile of the LinkedIn user using their profile URL.
- Input is the Output of Slot 01 (profile URLs column).
- Configuration:
  - Setup name for the slot.



- Now we will feed out competitor's post likers responded result into this slot and will specify the column name where the profile URLs are available.



- Connect your linkedin account

The screenshot shows the 'LinkedIn Profile Scraper' interface. On the left, a sidebar lists steps: 'Profiles to scrape' (checked), 'Connect to LinkedIn' (active), 'Email discovery' (checked), 'Behavior' (checked), and 'Launch settings' (checked). Below the sidebar are links for 'Advanced settings' and 'More information about this Phantom'. The main content area is titled 'Connect your LinkedIn account'. It features a dropdown menu showing 'Wishah Naseer Ahmad' with a 'Detected by the extension' label and a close icon. Below the dropdown are 'Back' and 'Save' buttons.

- Select launch frequency to manually once

The screenshot shows the 'Select the launch frequency' step. The sidebar is updated with 'Connect to LinkedIn' checked and 'Launch settings' active. The main content area is titled 'Select the launch frequency' with a sub-note: 'To keep your account safe, spread your actions across multiple launches throughout the day, during office hours.' There are four buttons: 'Repeatedly', 'Once' (highlighted in blue), 'After another Phantom', and 'Advanced'. Below these is the 'Launch options' section with 'Launch manually' selected (radio button) and 'Launch at a specific time' (radio button). 'Back' and 'Save' buttons are at the bottom.

- Save it and the slot will be displayed on your dashboard

The screenshot shows the dashboard with a 'Success' message and '1 slot'. The slot is titled 'LinkedIn Profile Scraper' and 'Individuals Profile Scraper'. It has a toggle switch set to 'OFF' and a link to 'Launch manually'.

- Since the result of this slot retrieves a number of unnecessary columns that is why they are cleaned through python script and dumped into a google sheet which will be discussed later in this document.

### Slot 03: AI Enrichment for Potential Fit:

- This slot uses AI model to evaluate candidate suitability using a custom prompt to filter candidates.
- Input is the cleaned Google Sheet "Liker-Details" from Slot 02
- Configuration:
  - Setup the name for the slot

The screenshot shows the 'Advanced AI Enricher' slot configuration. It has a star icon and the title 'Filter Likers Extracted'.

- Select AI Model of your choice

Advanced AI Enricher  
Filter Likers Extracted

... Save & close

☐ GPT Model  
☒ Data to enrich  
☒ Behavior  
☒ Launch settings

Advanced settings

Setup demo video

You can have the Phantom use your PhantomBuster AI credits, or utilize your own OpenAI account through your API key.

GPT Model

gpt-4o-mini (PhantomBuster)

Save →

- Fetch the data all in bulk and select custom prompt and add the prompt:

You are given a list of LinkedIn user profiles who liked a competitor's post. Each profile includes fields such as full name, headline, job title, company name, and profile URL. Your task is to identify which individuals are a potential fit for Workerbase. Our Competitor company is MaintainX so donot include that if found. Retreive minimum 15 results.

Workerbase is a company that provides a software platform for connected workers, digital workflows, and shopfloor automation, mainly targeting:

- Manufacturing companies
- Operations managers, plant managers
- Industrial engineers, process improvement specialists
- Production supervisors, shopfloor IT, and digital transformation leaders
- Roles involved in Industry 4.0, smart factory, or digital manufacturing projects

Filter the list and return only the profiles that:

1. Work in relevant industries (Manufacturing, Industrial Automation, Automotive, Aerospace, Electronics, etc.)
2. Hold roles such as:
  - Operations Manager, Plant Manager, Production Manager, Manufacturing Engineer
  - Industrial Engineer, Process Engineer, Continuous Improvement Manager
  - Digital Transformation Manager, IT for Manufacturing, Industry 4.0 Specialist
3. Exclude interns, students, HR, marketing, sales, or unrelated roles.

Output format:

Full Name:  
Job Title:  
Company:  
Profile URL:  
Reason for Selection: (e.g., "Plant Manager at Automotive Company")

Advanced AI Enricher  
Filter Likers Extracted

... Save & close

☒ GPT Model  
☐ Data to enrich  
☒ Behavior  
☒ Launch settings

Advanced settings

Setup demo video

Choose the Enrichment Mode, either Row by row, or All the data at once

All at once (Bulk)

Choose the method by which your spreadsheet data will be enriched:

Individual Rows: The AI processes each row separately in the spreadsheet, making one API call per row. This mode is suitable for tasks that require independent enrichment for each data entry, such as personalized messages, individual content analysis, or single translations.

All at Once: The AI processes the entire spreadsheet in a single API call, treating the data as a collective set. This mode is ideal for tasks that involve analyzing a group of data, like deriving insights from a list of comments, summarizing a collection of texts, or performing trend analysis.

Select the mode that best aligns with your use-case and the nature of your data. Keep in mind the different capabilities of each mode and how they affect your desired results.

Prompt templates

Create a custom prompt

Choose from the list of pre-filled prompts, or create a custom prompt that suits your specific needs. Keep in mind that the prompt should be clear and concise to get the most accurate and relevant results from the AI. If you're unsure of how to craft a prompt, start with one of the existing options, and feel free to modify it as needed.

Editable prompt

You are given a list of LinkedIn user profiles who liked a competitor's post. Each profile includes fields such as full name, headline, job title, company name, and profile URL. Your task is to identify which individuals are a potential fit for Workerbase. Our Competitor company is MaintainX so donot include that if found. Retreive minimum 15 results.

Workerbase is a company that provides a software platform for connected workers, digital workflows, and shopfloor automation, mainly targeting:

Craft your custom prompt by clearly describing the task you want the AI to perform using the data from your spreadsheet. It's recommended to write the instructions in English and to request the response as a JSON object with appropriate keys, like this: { "key": "value", "key": "value" }. Ensure that your instructions are specific, concise, and relevant to the data for optimal results.

- This custom prompt will help you to find the potential fits for workerbase

- Add you dataset that is Slot 2's cleaned googlesheet

**Your data**

[A URL](#) [My Phantoms](#)

Give your data in one of the following formats:

- The results file of another Phantom.
- The URL of a [Google Sheet](#).
- The URL of a CSV file.

Make sure that the CSV and Google Sheets are publicly accessible.

**Specify columns to feed to GPT**

First Name  
Last Name  
LinkedIn Headline  
LinkedIn Job Title  
Company Name  
Company Tagline

6898 characters remaining

Enter the column names from your spreadsheet that you want to use for enrichment. Include only the necessary columns, as not all data may be relevant for the task. Type each column name on a separate line, following the example below:

firstName  
headline  
description

[← Back](#) [Save →](#)

- Configure AI Model Temperature, number of rows to be processed and output file name

**Advanced AI Enricher** **Filter Likers Extracted** [Save & close](#) [×](#)

☒ GPT Model  
☒ Data to enrich  
☐ Behavior  
☒ Launch settings

[Setup demo video](#)

[More information about this Phantom](#)

**Temperature** Optional

The temperature parameter basically determines the "randomness" of an AI's output. Low temperature is good for accuracy, but can result in more focused & deterministic responses. High temperature is good for creativity, but could result in supreme weirdness (the AI flies off-topic). The temperature value is set by default to 1 out of 2.

**Number of rows of your spreadsheet to process in total** Optional

Will try to process all of them if empty. However, due to API limitations, if the amount of data exceeds the allowed limit for a single call, only a part of your input file might be processed.

**Name your results file** Optional

Take note: If you rename your results file at any point between launches, the Phantom will create a new results file and process your inputs from the start again.

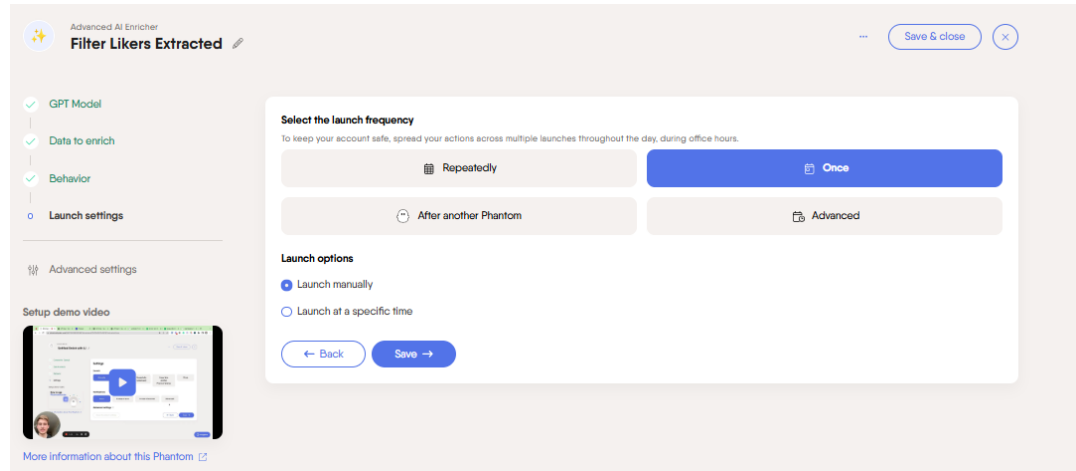
**Fields to keep** Optional

This will create a second CSV file with only the fields you want to keep.  
Enter those fields separated by a comma (e.g.: firstName, message)

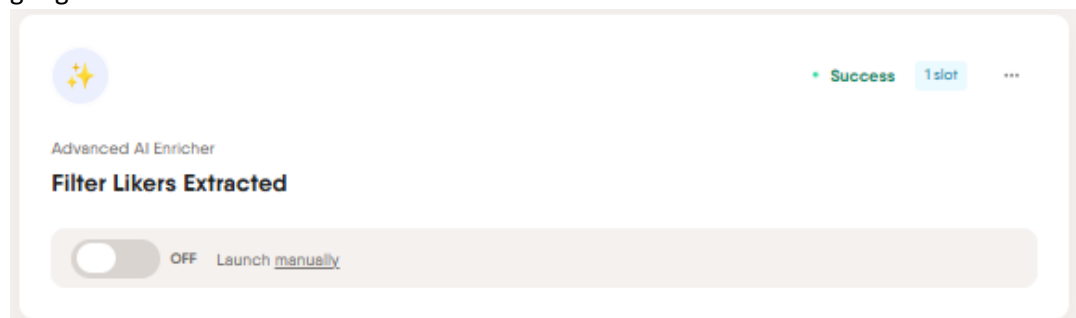
[← Back](#) [Save →](#)



- Setup launch settings to manually once

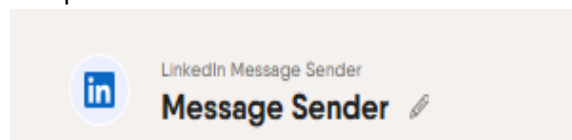


- The result of this slot is a raw response that is filtered through python and stored in the same google sheet which was discussed before.



#### SLOT 04: LINKEDIN MESSAGE SENDER:

- This Slot sends your personalized message to the filtered users on linkedin.
- Input is Slot 3's filtered data present in google sheet "Filtered-Likers".
- Configuration:
  - Setup the name for the slot



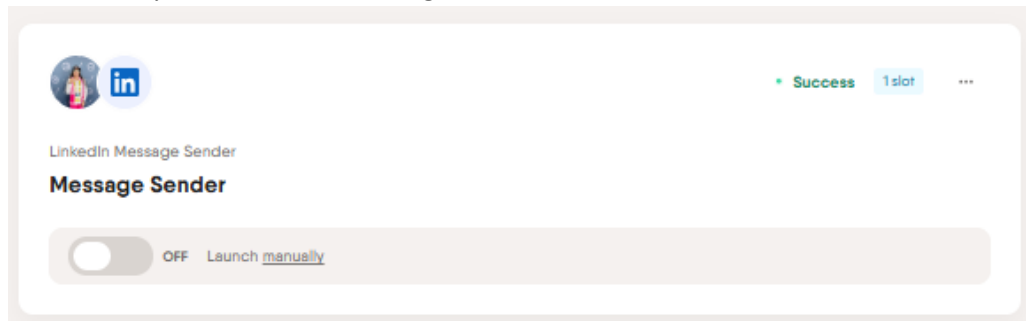
- Setup the input data URL that is the filtered data dumped already into the google sheet, specify the column where profile URLs are present

- Connect you linkedin account here from which the message will be sent to the potential fit candidate, I have used my account here for testing purpose but we can add the sales team account here to send message from there accountnt

- Draft the message here, the message can be personalized. You can use the user's details that was selected in the same settings tabs (Profile Messages). Sales team can draft there own message according to there requirements and preferences

The screenshot shows the 'LinkedIn Message Sender' interface. On the left, there's a sidebar with navigation links: 'Profiles to message', 'Connect to LinkedIn', 'Message content' (selected), 'Email discovery', 'Behavior', 'Launch settings', and 'Advanced settings'. Below these is a 'Setup demo video' section with a play button and the text 'Automate your LinkedIn messages'. The main area is titled 'Here you can write a custom message to be sent to your leads.' It includes a checkbox for 'Scrape all available profile data' (checked), a 'Condition for sending messages' dropdown set to 'Send to all', and a large text area for 'Your message'. The message content is: 'Hi {Full Name}, I noticed your experience in {Job Title} at {Company}. At Workerbase, we help companies digitize shopfloor processes and empower connected workers for more efficient operations. Would love to connect and exchange insights on digital transformation in manufacturing.' Below the message area are 'Attach files' buttons for 'Document' and 'Image', and a 'Save' button. A character count shows '-7717 characters remaining'.

- Save it now you can send the messgae to the extarcted users



#### 4. BACKEND SYSTEM:

- Combine all 4 slots in a pipeline to create end-to-end user friendly system that runs only on a click.
- Launch and extract the data of slots through python.
- Visit GitHub repo to see the code: [here](#)

#### Directory Structure:

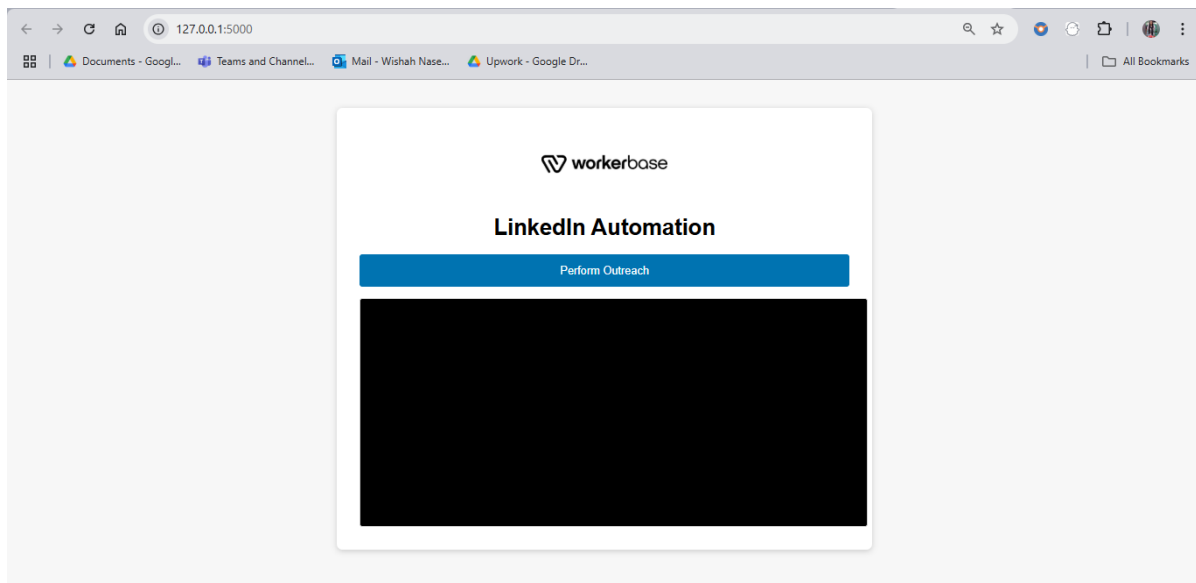
- credentials/credential.json -> google sheet service account file
- settings/config.yaml -> contains all the required API key, phantom ids for each slot, google sheet URL and sheet names
- static/images/logo.png -> logo used to add on display
- templates/index.html -> frontend for the system
- utils/googlesheet.py -> performs sheet actions like authorize, clear, update and read
- utils/parser.py -> cleans the raw response
- utils/phantom.py -> this file hits the phantom APIs to launch the phantom, get its container id, retrieves output and extracts data
- scripts/extract\_competitor\_likers.py -> launches the competitors post likers slot (Slot 01) using slot id which we can get through the slot url.

<https://phantombuster.com/8787779292298380/phantoms/8006564687557037/dashboard>, here 8006564687557037 is the slot id

- scripts/extract\_liker\_details -> launches and extracts the data of the slot 02 and cleans the data and dump it into googlesheet's sheetname "Liker-Details"
- scripts/filter\_likers -> takes data input from Liker-Details sheet, launches and extracts data. Uses parser to filter the data potential for workerbase and dump it into google sheet's sheet name "Filtered-Likers"
- scripts/send\_messages -> takes data from Filtered-Likers, launches and sends messages on linkedin
- main.py -> made to test the scripts
- app.py -> flask app where the Perform Outreach button is routed to run the scripts

## 5. FRONTEND UI:

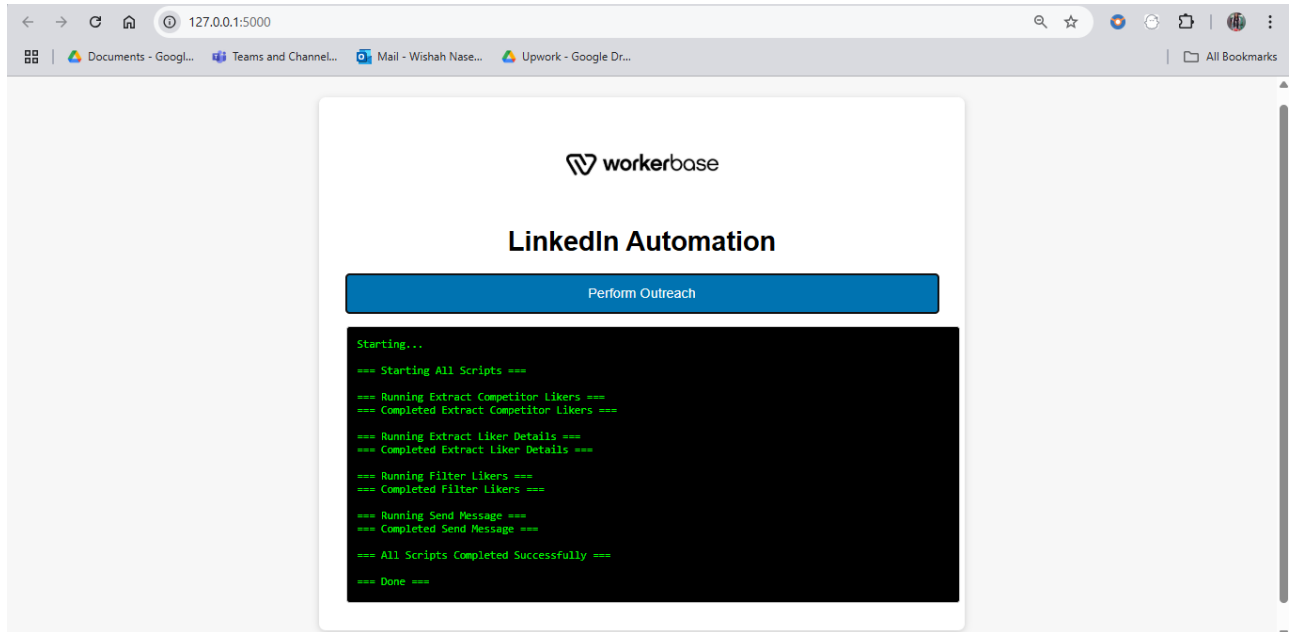
- HTML-based interface
- Launches scripts via /run-all Flask route
- Displays logs in real-time
- Uses JS fetch() + streaming with TextDecoder



## 6. FINAL FLOW SUMMARY:

- Run app.py.
- Click "Perform Outreach".
- Flow:
  - Extract Competitor Likers:
    - Launches the Slot 01
  - Extract Liker Details:
    - Launches Slot 02
    - Collects the data and clean it
    - Dump data to google sheet, sheet name is "[Liker Details](#)"
  - Filter Likers:
    - Launches slot 03
    - Collects the raw response and the filter it.
    - Dump data to google sheet, sheet name is "[Filtered-Likers](#)"

- Send Messages:
  - Launches slot 04
  - Sends messages to the potential fits
- At the end when all process is completed we get the below results on screen that showcases that process has been completed.



## 7. WORKFLOW:

