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.

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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

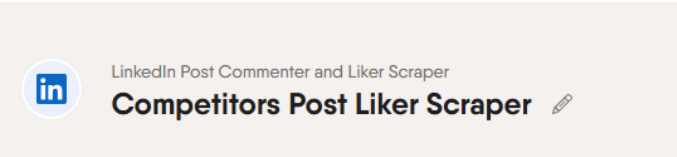
2. INITIAL STEPS:

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.

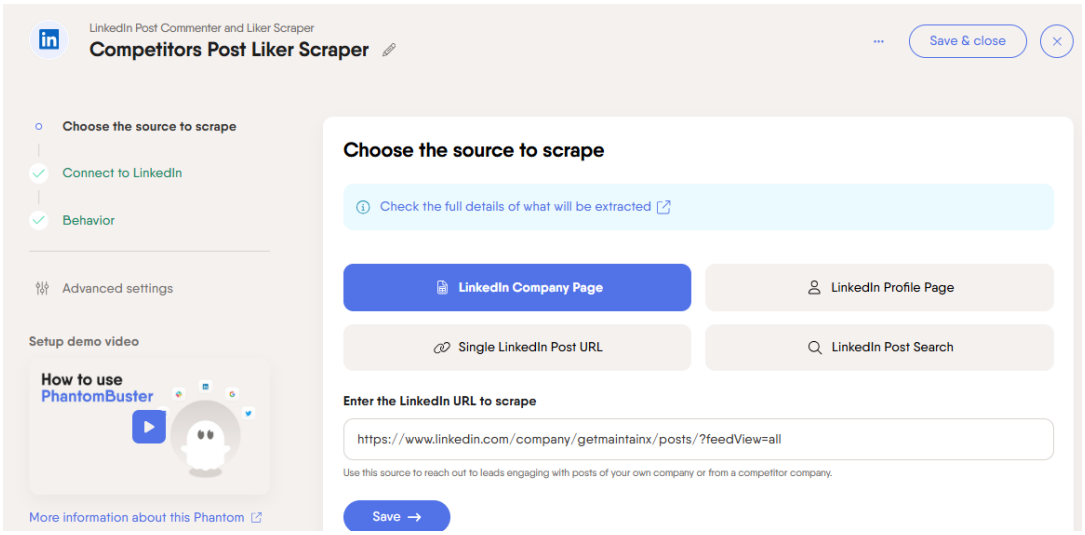
3. SLOTS DESCRIPTION & EXECUTION:

Slot 01: Extract Competitor Post Likers:

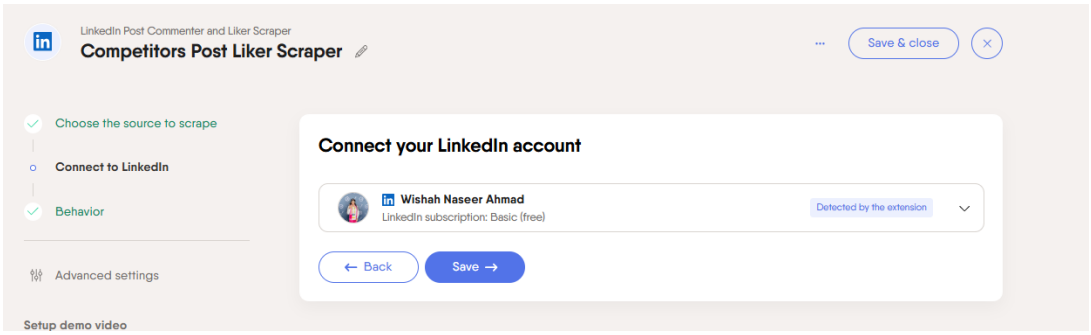
- This phantom slot allows you to scrape all the commenters and likers on competitor's recent post.
- Input is Competitor Company LinkedIn URL.
- Configuration:
  - Setup name for the slot



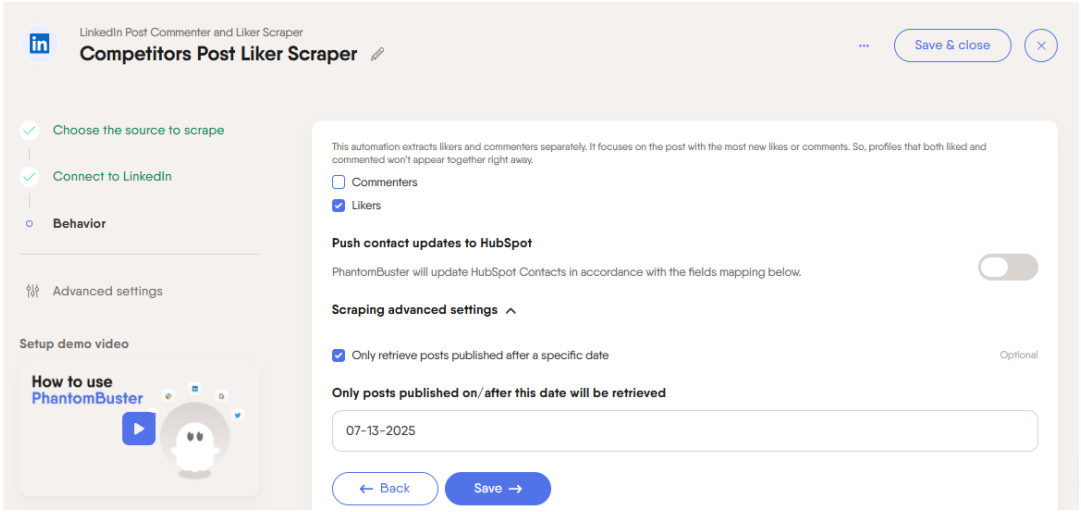
- Choose the option and the competitor's linkedIn URL to scrape competitor's engagement.



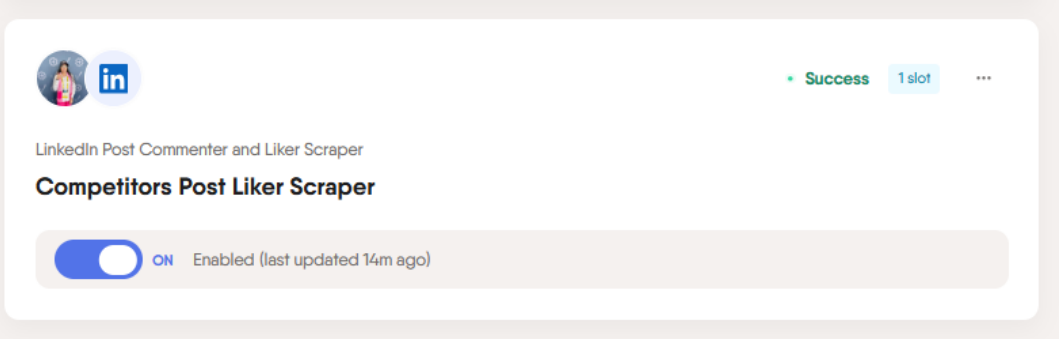
- Choose your linkedin account.



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



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

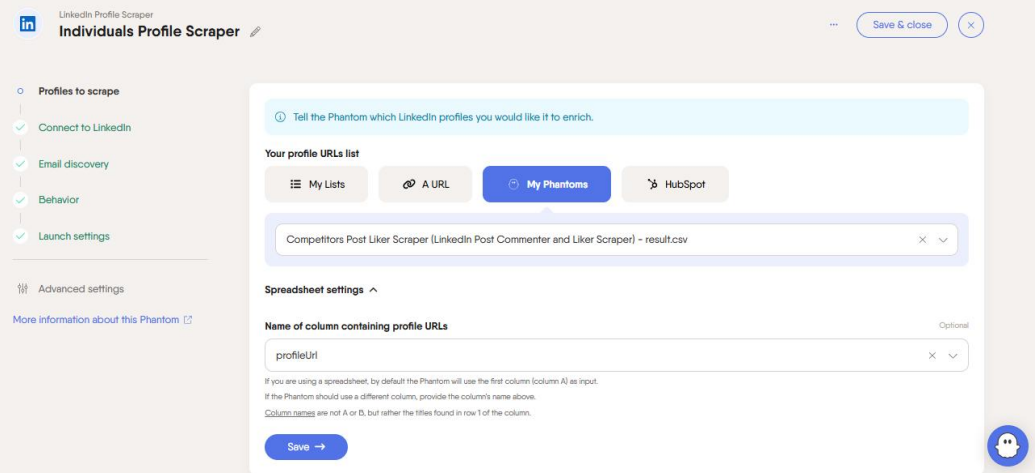


- You can update the settings anytime you want and save it. This slots data will be saved inside it. As it is not useful to store somewhere so we will not download it we will directly use it.

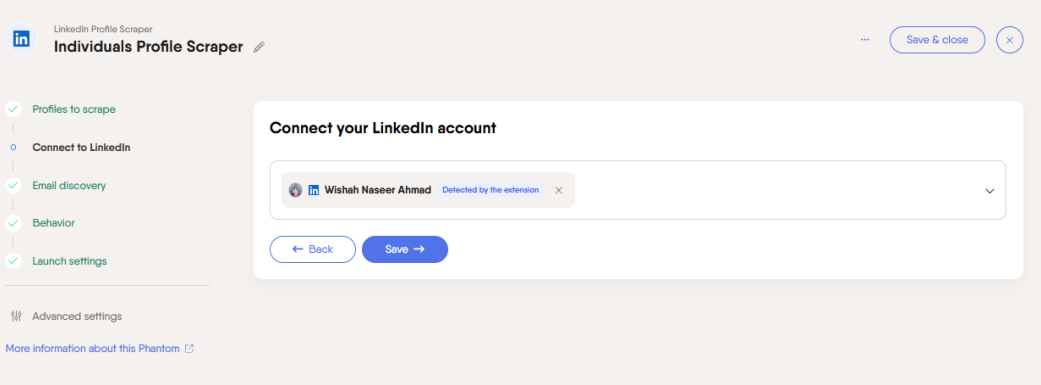
Slot 02: Extract Liker Details:

- 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.

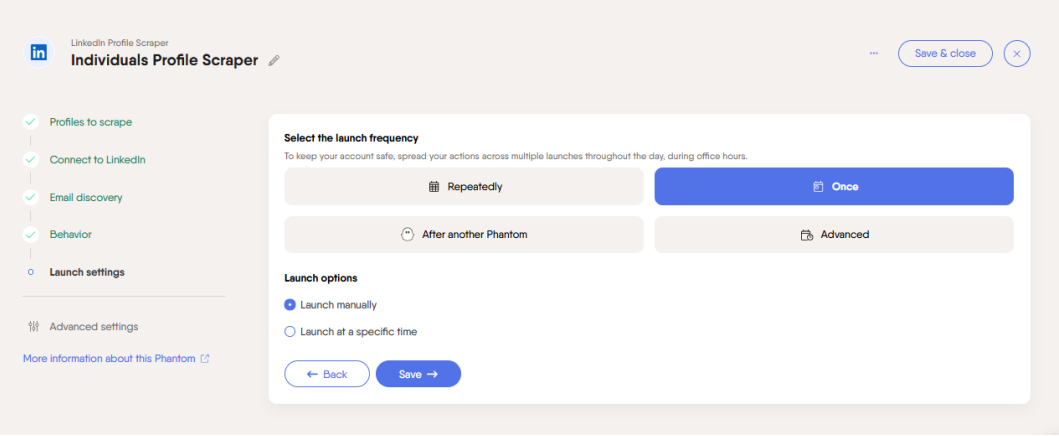
  - Now we will feed out competitor's post likers responded result into this slot and will specify the column name where the profile URLS are available.



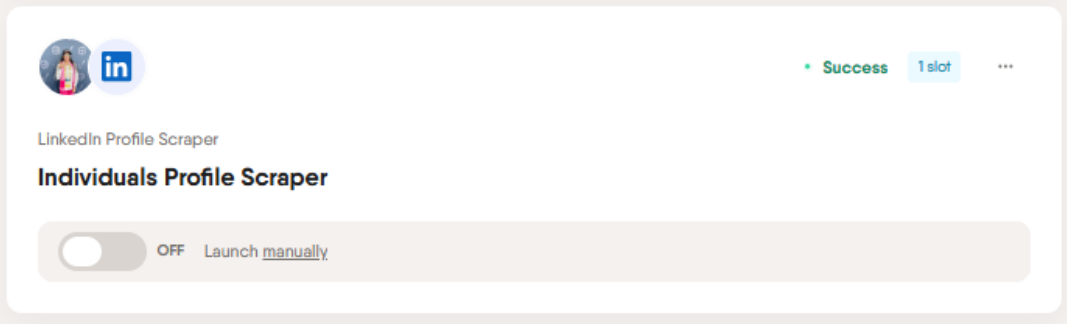
- Connect your linkedin account



- Select launch frequency to manually once



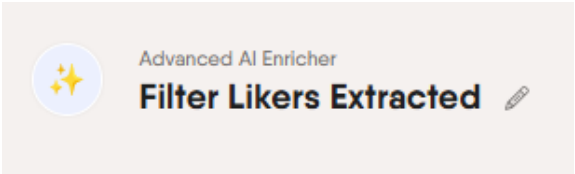
- Save it and the slot will be displayed on your dashboard



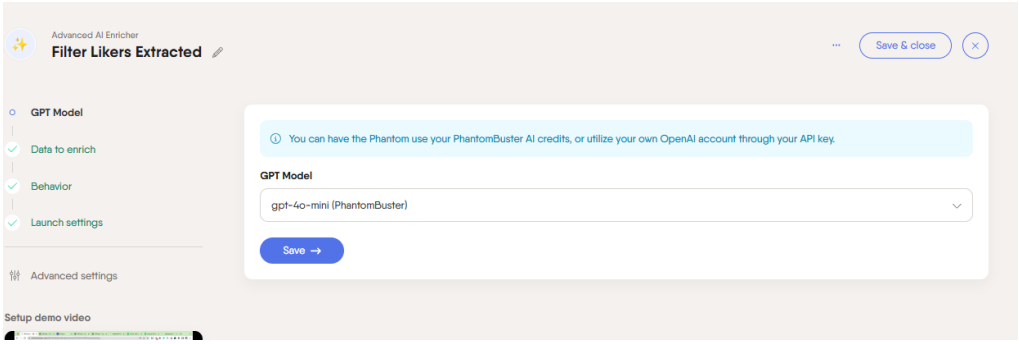
- Since the result of this slot retrieves a number of unnecessary columns that is why they are cleaned through python script and dumped into a google sheet which will be discussed later in this document.

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

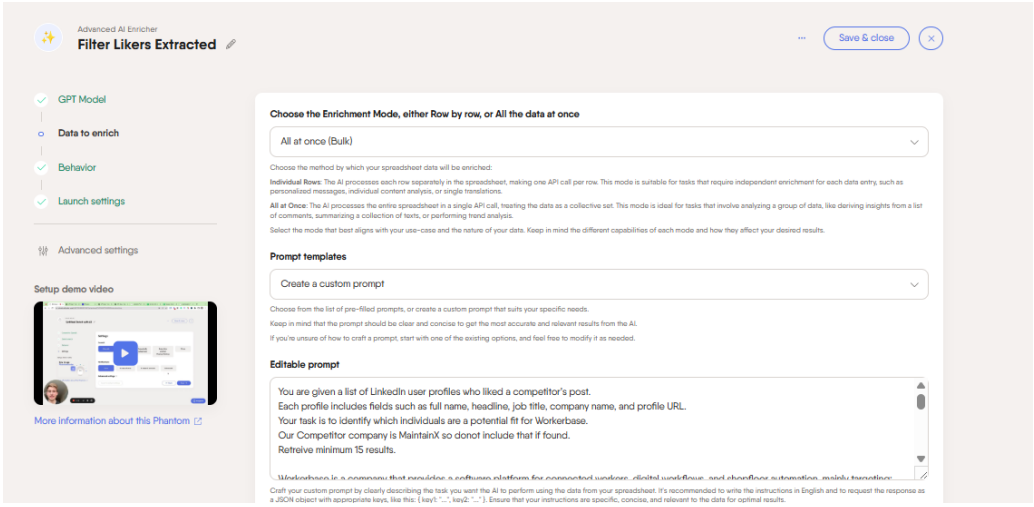


- Select AI Model of your choice



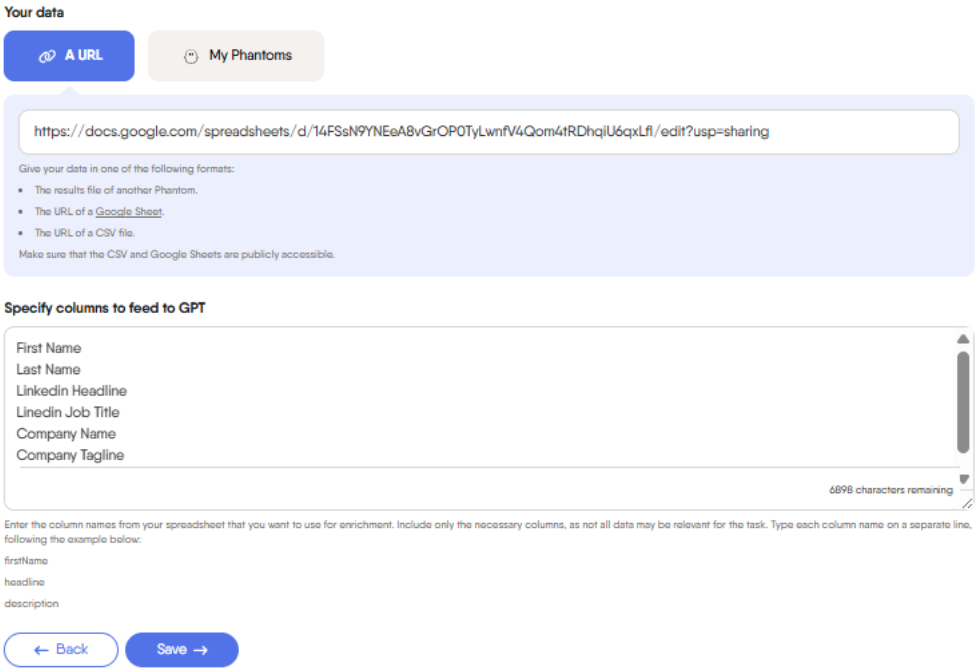
- Fetch the data all in bulk and select custom prompt and add the prompt:

```
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")
```

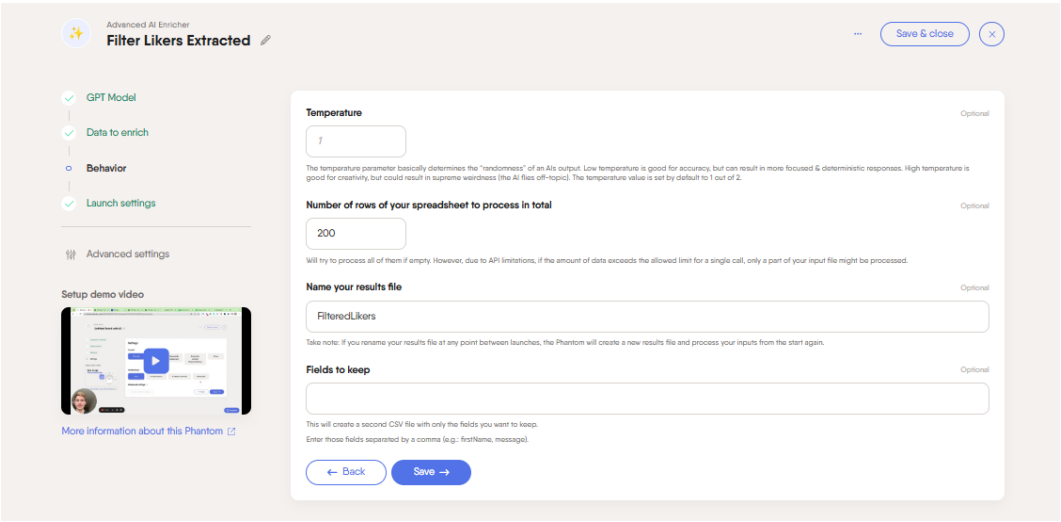


- This custom prompt will help you to find the potential fits for workerbase

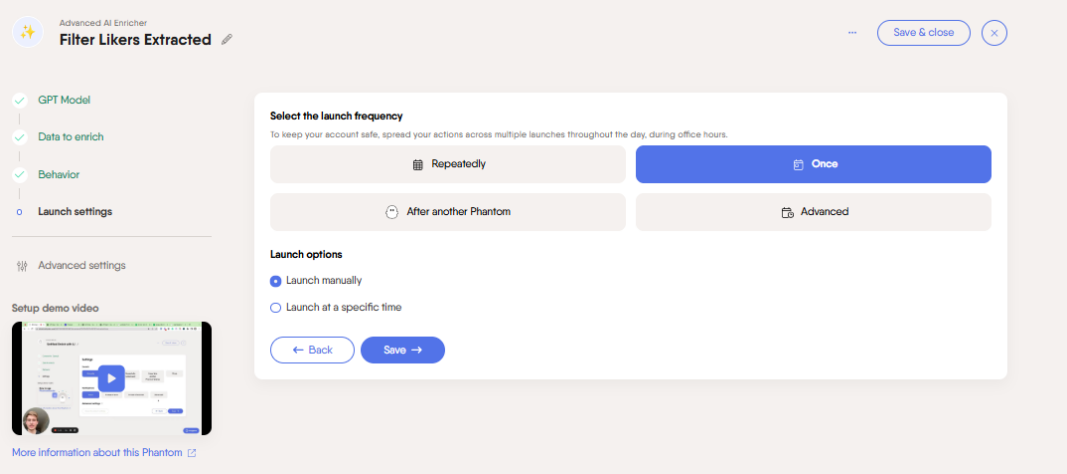
- Add you dataset that is Slot 2's cleaned googlesheet



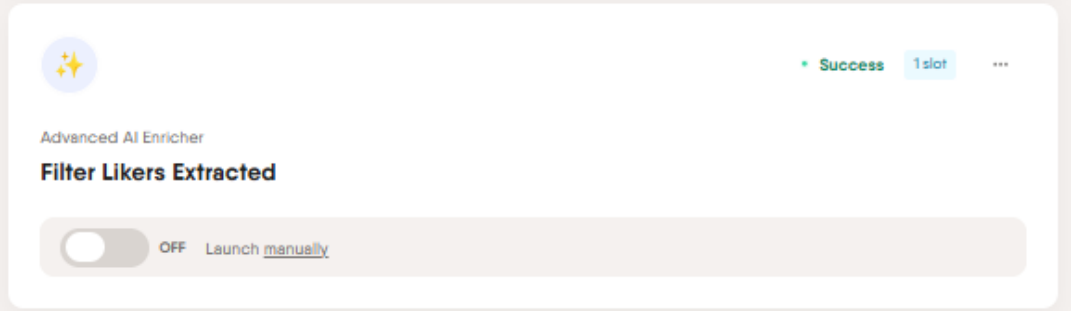
- Configure AI Model Temperature, number of rows to be processed and output file name



- Setup lauch settings to manually once

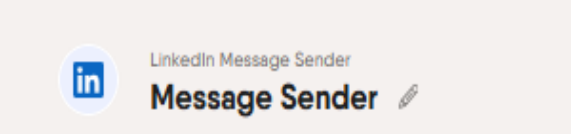


- The result of this slot is a raw response that is filtered through python and stored in the same google sheet which was discussed before.

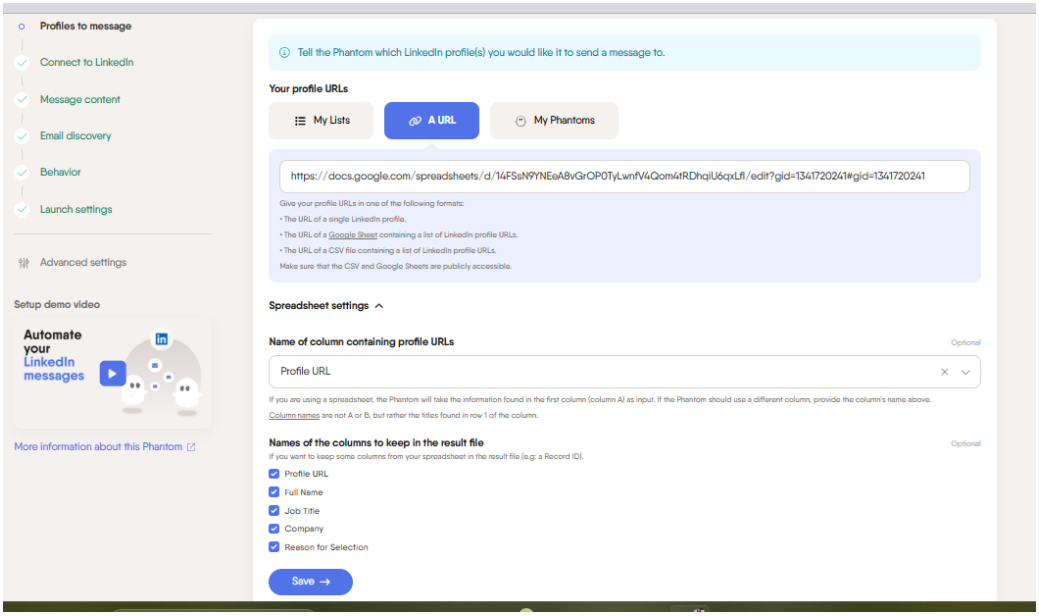


SLOT 04: LINKEDIN MESSAGE SENDER:

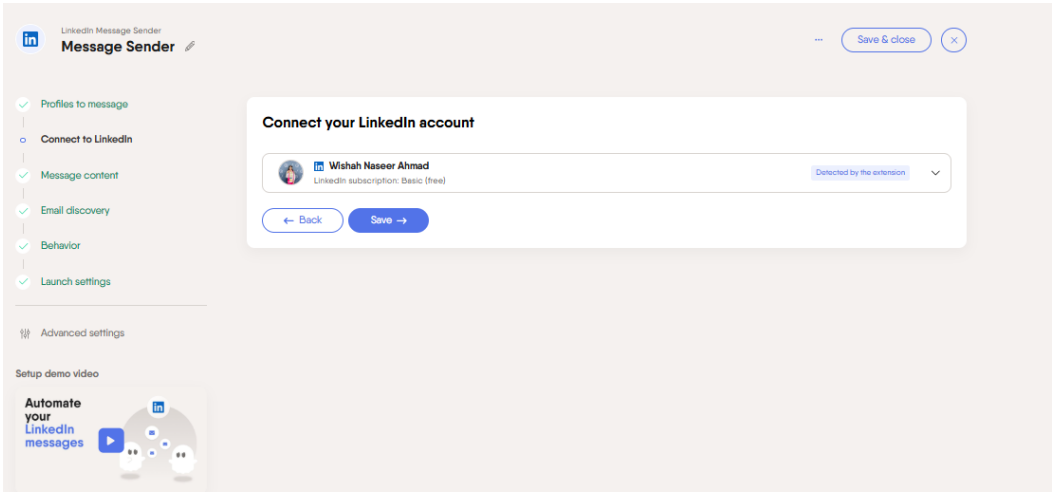
- This Slot sends your personalized message to the filtered users on linkedin.
- Input is Slot 3's filtered data present in google sheet "Filtered-Likers".
- Configuration:
  - Setup the name for the slot

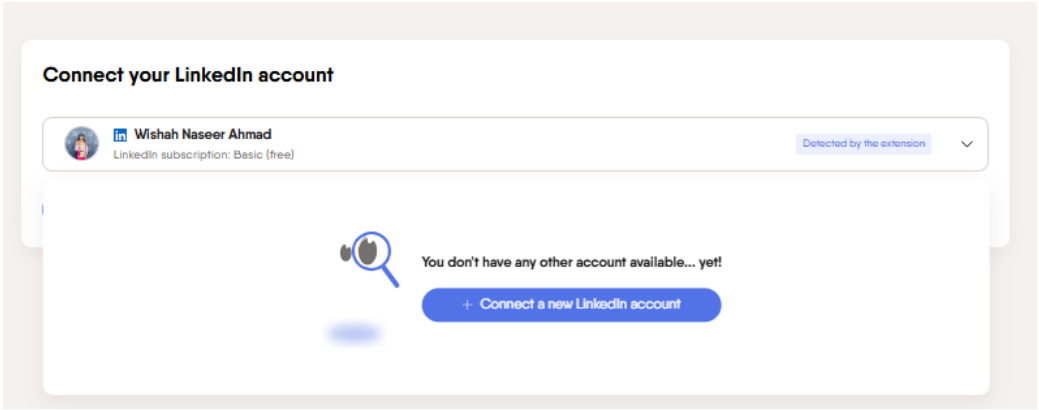


- Setup the input data URL that is the filtered data dumped already into the google sheet, specify the column where profile URLs are present

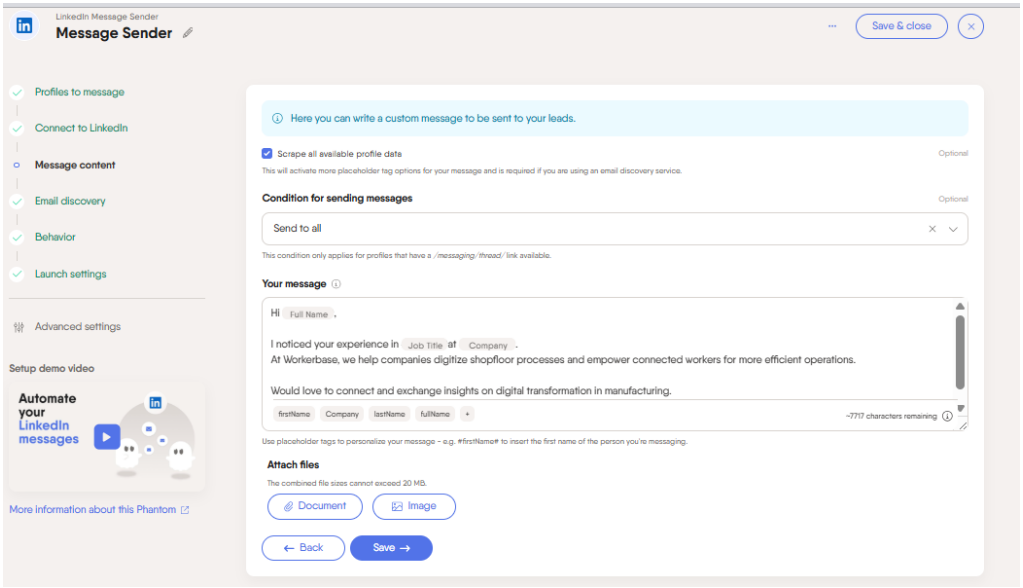


- Connect you linkedin account here from wheich the message will be sent to the potential fit candidate, I have used my account here for testing purpose but we can add the sales team account here to send message from there accoutnt

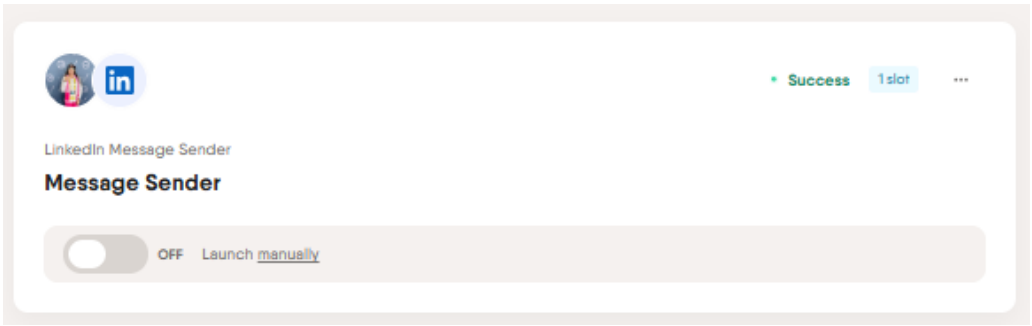




- Draft the message here, the message can be personalized. You can use the user's details that was selected in the same settings tabs (Profile Messages). Sales team can draft there own message according to there requirements and preferences



- 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:

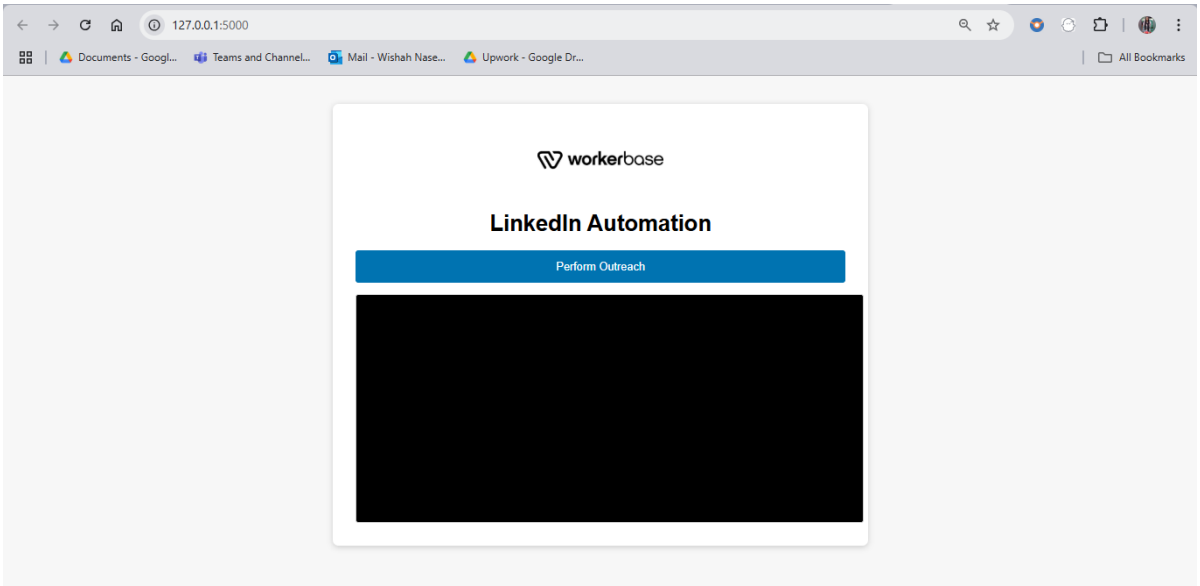
- credentials/credential.json -> google sheet service account file
- settings/config.yaml -> contains all the required API key, phantom ids for each slot, google sheet URL and sheet names
- static/images/logo.png -> logo used to add on display
- templates/index.html -> frontend for the system
- utils/googlesheet.py -> 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

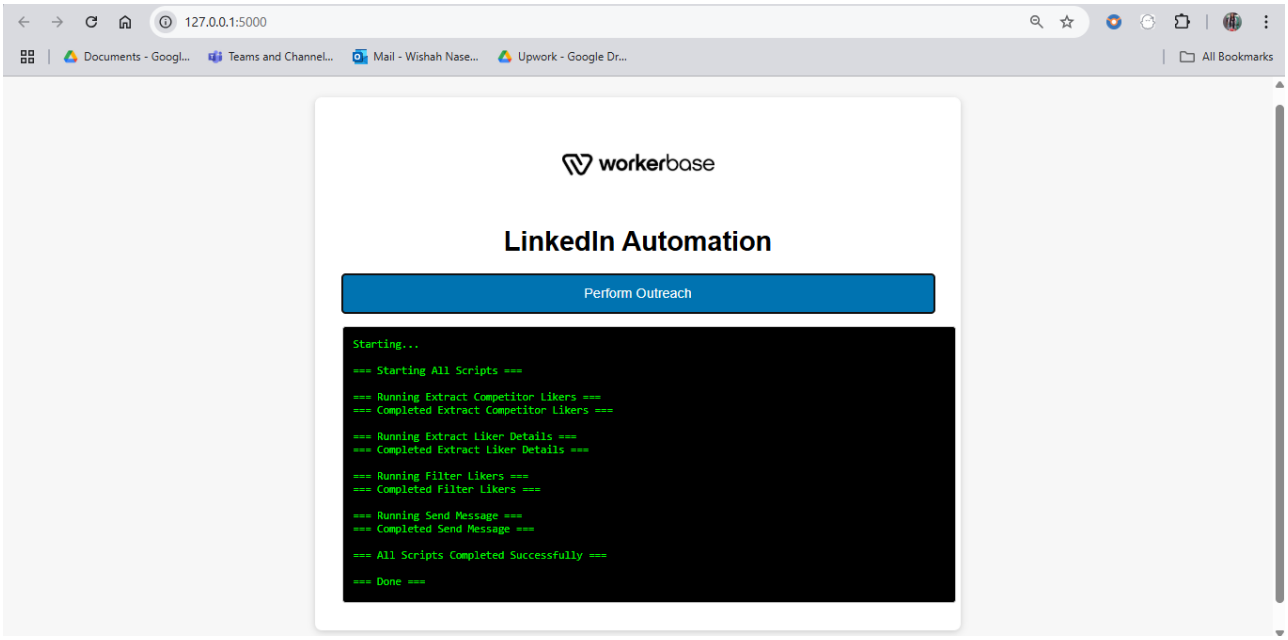


6. FINAL FLOW SUMMARY:

- 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: