Assignment Overview: Automating Lead Generation and Email Outreach

Assignment Description:

Your task is to develop a Python script that automates the process of lead generation from Google Maps, data management in Google Sheets, and personalized email outreach using the ChatGPT API and an email service.

Instructions:

Part 1: Data Scraping and Google Sheets Integration

1. Lead Generation:
  - Use Python and a web scraping library (e.g., BeautifulSoup) to scrape business information (e.g., names, addresses, phone numbers, and email addresses) from Google Maps for a specific location and industry.
  - Store the scraped data in a structured format (e.g., CSV).

2. Google Sheets Integration:
  - Create a Google Sheets document to manage the collected lead data.
  - Develop a Python script to:
    - Authenticate with Google Sheets API.
    - Append the scraped data to the Google Sheets document, creating new rows for each lead.

Part 2: Personalized Email Generation using ChatGPT

3. Personalized Email Content:
  - Develop a Python script that generates personalized email content for each lead in the Google Sheets document.
  - Use the OpenAI ChatGPT API to create dynamic and personalized email text. Incorporate lead-specific information (e.g., name and business details) into the email text.

Part 3: Email Sending

4. Email Service Integration:
  - Choose an email service provider (e.g., Gmail, SendGrid, or another provider of your choice).
  - Set up the email service's API or SMTP integration in your Python script.

5. Email Sending:
  - Develop a Python script to:
    - Authenticate with the chosen email service.
    - Iterate through the Google Sheets data and send personalized emails to each lead.

- Log the status of email sending (e.g., success or failure) for each lead.

Submission:
Submit your Python script(s) along with documentation and any necessary API keys or credentials in a compressed archive (e.g., ZIP or RAR) via email or the specified submission method.

This comprehensive assignment evaluates the candidate's ability to automate complex tasks involving web scraping, data management, API integration, and email communication. It showcases their proficiency in utilizing multiple technologies and libraries to create an end-to-end automation solution.

Important Details:

- Assignment Deadline: You have three days to complete the assignment from the date of receiving this email.
- AI Assistance: You are allowed to use AI (ChatGPT) to assist you in completing the assignment.
- Final Review: Upon successfully completing the assignment, you will have a final review session with our HR and Technical teams to discuss your work and answer any questions.

Compensation for Successful Completion:
We value your time and effort in completing this assignment. As a token of appreciation, we will pay an additional 3000 INR to selected candidates who successfully complete the assignment. Payments will be made upon the completion of the internship.