



iJRASET

International Journal For Research in
Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 11 **Issue:** V **Month of publication:** May 2023

DOI: <https://doi.org/10.22214/ijraset.2023.52669>

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Lead Generation

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Abstract: AI-based tools and technologies have emerged as successful solutions for a variety of business problems, including sales and marketing optimization. Although social media marketing is widely used today, it requires domain expertise and human effort, making it expensive, especially for Small and Medium Enterprises (SMEs). To tackle this problem, we recommend an AI-powered system and approach for automated advertising campaign generation, making use of a data-driven approach.

Our Lead Gen tool allows for the tracking and management of every lead based on campaign specifications. With advanced automation, leads are captured, qualified, and instantly distributed to sales reps to ensure no leads are lost. The Lead Gen tool is divided into modules, with roles defined by department, enabling department heads to track campaign behaviour.

In addition, our system includes an inbuilt HRMS management system for leave management at the user level, with admin rights to approve or reject requests. As a web-based campaign management tool, it is efficient and can be accessed from any computer with an internet connection. We have also incorporated a Chat Bot, built using Artificial Intelligence, to address user queries. Our system is flexible, scalable, and offers data protection through the use of cloud computing. With fully redundant and replicated servers, downtime is prevented in case of a disaster.

User Level: The Lead Gen tool enables the tracking and management of leads according to campaign specifications, while the inbuilt HRMS management system facilitates leave management. The Chat Bot addresses user queries.

Admin Level: The admin has the rights to approve or reject leave requests through the HRMS management system. **Chat Bot:** The Chat Bot is built using Artificial Intelligence to address user queries.

Keywords: Web-Based, Investigation, Research, Industries, Visualization, Social Networking (Online), User Experience, User Interface Design, Marketing Management, Customer Relationship Management.

I. INTRODUCTION

Lead generation (or lead gen for short) refers to the use of AI-powered tools and technologies to automatically generate marketing campaigns. These systems rely on intelligent algorithms that can quickly process raw campaign data from various departments and generate reports. By using a data-driven approach, companies can optimize their sales and marketing efforts.

Effective campaign management is crucial to reaching customers in the best possible way, while meeting marketing objectives.

AI is also the driving force behind smart assistants that can be accessed on most mobile devices today.

A management system is a set of policies, processes, and procedures used by organizations to fulfil their objectives. These objectives can cover a range of operations, including human resource management, campaign status and reporting, data quality, and worker management. To ensure that users receive the most relevant campaigns, their interests are first analysed and compared to available campaigns on the system. This information is then used to provide users with the status of their campaigns.

II. METHODOLOGY

Insertion sort is an algorithm that sorts a list by consuming one input element at a time and producing a sorted output list. At each iteration, the algorithm takes an element from the input data, determines where it belongs in the sorted list, and inserts it there. This process continues until no more elements remain in the input. The sorting is typically done in-place, by iterating through the array and building the sorted list behind it. At each position in the array, the algorithm checks the value against the largest value in the sorted list. If the value is larger, it leaves the element in place and moves on. If it's smaller, it finds the correct position within the sorted list, shifts the larger values up to make room, and inserts the element into the correct position. The algorithm works by analysing a large group of users to find a smaller set with similar tastes to a particular user. It examines the items these users like and combines them to create a ranked list of suggestions. After k iterations, the resulting array has the property that the first k+1 entries are sorted (with +1 because the first entry is skipped). During each iteration, the algorithm removes the first remaining entry from the input and inserts it into the result at the appropriate position.

When selecting a sorting algorithm, it's important to consider the characteristics of the input list. Insertion sort is a good option if the list is mostly sorted, as it has a fast best-case running time. However, for larger or more unordered lists, algorithms with faster worst and average-case running times, like merge sort, are typically a better choice. Despite its limitations, insertion sort offers several advantages, including its simplicity, the preservation of relative order for items with equal keys, and the ability to sort a list in real-time as it's received. Additionally, it's efficient for small data sets and requires only a constant amount of additional memory space (i.e., $O(1)$) compared to other quadratic algorithms.

Insertion Sort Execution Example



Fig. 1

III. SYSTEM ANALYSIS

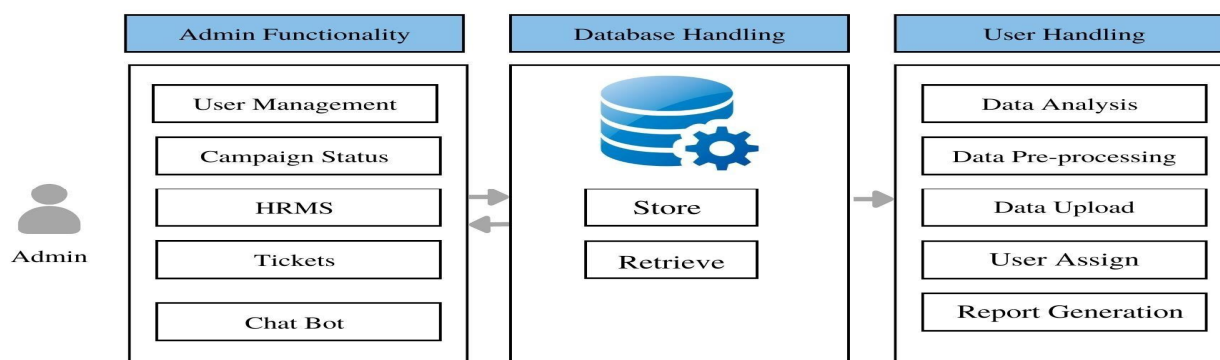


Fig. 2 Proposed System Architecture.

The workflow of the project is illustrated in Figure 2, which outlines the proposed system architecture for an online library book recommendation application. To enable this system, all books in the library are rated and the top-rated books are presented to users. The system is automated, allowing library users to quickly and easily select the best book in their area of interest based on the ratings. Users can borrow or purchase books, and have them delivered to their address, all from the convenience of their computer. To filter the books and provide personalized recommendations to users, a collaborative filtering algorithm is utilized. This approach takes into account user ratings and feedback to suggest books. User identification and authorization are required before shipping the book to the user's address. The system is accurate, reliable, and dynamic, and offers numerous benefits, including time and cost efficiency and reduced manual work. Figure 2 depicts the overall system architecture that will be implemented to achieve the library's goals.

IV. SOFTWARES REQUIRED

A. User Interfaces

Web Base Application Based on Lead Gen System using Artificial Intelligence.

B. Software Interfaces

- 1) Operating System: any
- 2) Coding Language: HTML5, CSS3, JavaScript, Bootstrap, AJAX, PHP, MySQL
- 3) Frontend: HTML5, CSS3, JavaScript, Bootstrap
- 4) Backend: AJAX, PHP
- 5) Database: MySQL
- 6) Browser: Chrome

C. Hardware Interfaces

- 1) Processor: Any
- 2) RAM: 512 MB (min)
- 3) Hard Disk: Not Required
- 4) Key Board: Standard Windows Keyboard
- 5) Mouse: Two or Three Button Mouse
- 6) Monitor: LCD/LED

V. RESULT

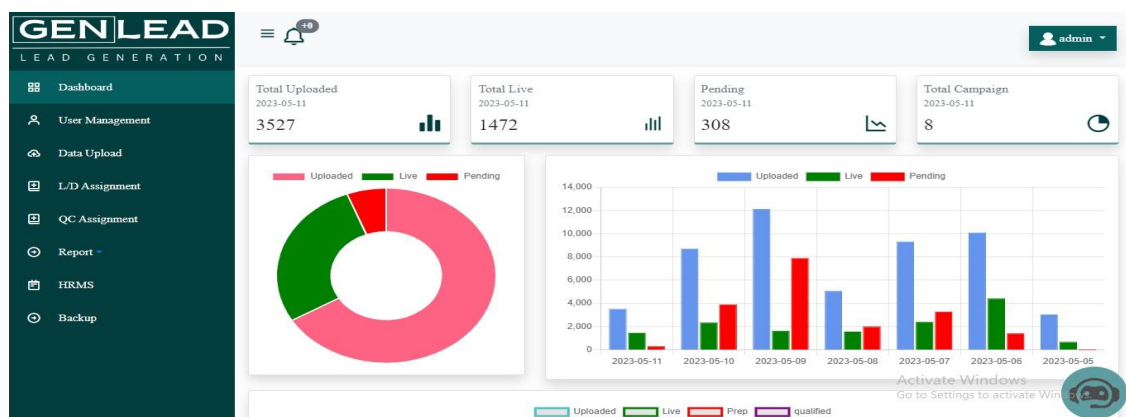
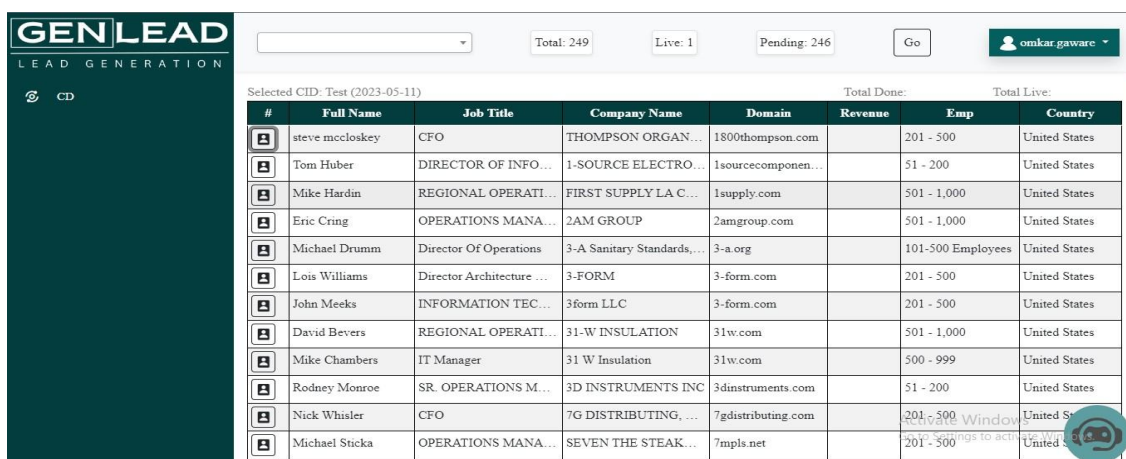


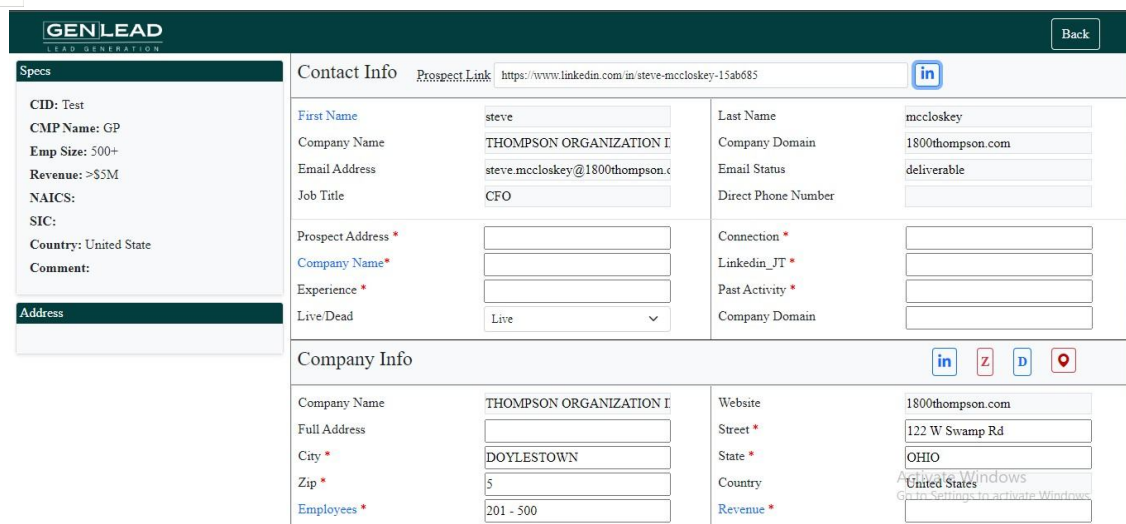
Fig. 3



The screenshot shows the GENLEAD user interface with a search bar and filters. The selected CID is 'Test (2023-05-11)'. The table below lists the leads:

#	Full Name	Job Title	Company Name	Domain	Revenue	Emp	Country
1	steve mccloskey	CFO	THOMPSON ORGAN...	1800thompson.com		201 - 500	United States
2	Tom Huber	DIRECTOR OF INFO...	1-SOURCE ELECTRO...	1sourcecomponen...		51 - 200	United States
3	Mike Hardin	REGIONAL OPERATI...	FIRST SUPPLY LA C...	1supply.com		501 - 1,000	United States
4	Eric Cring	OPERATIONS MANA...	2AM GROUP	2amgroup.com		501 - 1,000	United States
5	Michael Drumm	Director Of Operations	3-A Sanitary Standards...	3-a.org		101-500 Employees	United States
6	Lois Williams	Director Architecture ...	3-FORM	3-form.com		201 - 500	United States
7	John Meeks	INFORMATION TEC...	3form LLC	3-form.com		201 - 500	United States
8	David Bevers	REGIONAL OPERATI...	31-W INSULATION	31w.com		501 - 1,000	United States
9	Mike Chambers	IT Manager	31 W Insulation	31w.com		500 - 999	United States
10	Rodney Monroe	SR. OPERATIONS M...	3D INSTRUMENTS INC	3dinstruments.com		51 - 200	United States
11	Nick Whisler	CFO	7G DISTRIBUTING, ...	7gdistributing.com		201 - 500	United States
12	Michael Sticka	OPERATIONS MANA...	SEVEN THE STEAK...	7mpls.net		201 - 500	United States

Fig. 4



GENLEAD
LEAD GENERATION

Specs

CID: Test
CMP Name: GP
Emp Size: 500+
Revenue: >\$5M
NAICS:
SIC:
Country: United State
Comment:

Address

Contact Info Prospect Link: <https://www.linkedin.com/in/steve-mccloskey-15ab685>

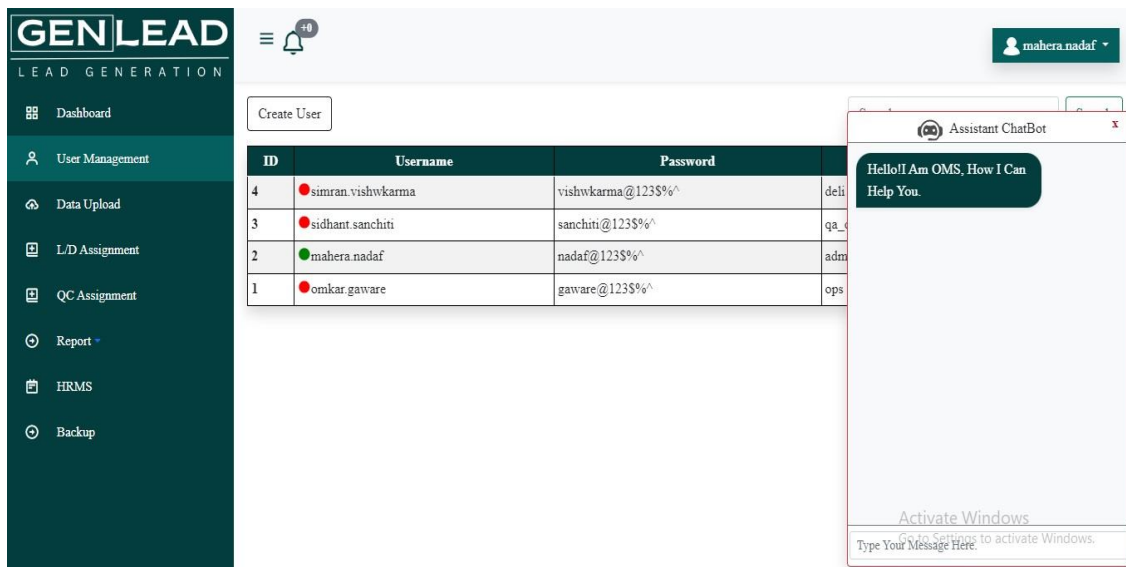
First Name: steve
Company Name: THOMPSON ORGANIZATION I
Email Address: steve.mccloskey@1800thompson.com
Job Title: CFO
Last Name: mccloskey
Company Domain: 1800thompson.com
Email Status: deliverable
Direct Phone Number:
Prospect Address *
Company Name *
Experience *
Live/Dead: Live

Connection *
Linkedin_JT *
Past Activity *
Company Domain

Company Info

Company Name: THOMPSON ORGANIZATION I
Full Address:
City: DOYLESTOWN
Zip: 5
Employees: 201 - 500
Website: 1800thompson.com
Street: 122 W Swamp Rd
State: OHIO
Country: United States
Revenue:

Fig. 5



GENLEAD
LEAD GENERATION

Dashboard
User Management
Data Upload
L/D Assignment
QC Assignment
Report
HRMS
Backup

Create User

ID	Username	Password	
4	simran.vishwkarma	vishwkarma@123\$%^	deli
3	sidhant sanchiti	sanchiti@123\$%^	qa
2	mahera.nadaf	nadaf@123\$%^	adm
1	omkar.gaware	gaware@123\$%^	ops

Assistant ChatBot

Hello! I Am OMS, How I Can Help You.

Activate Windows
Go to Settings to activate Windows.
Type Your Message Here

Fig. 6

VI. CONCLUSIONS

Employing a comprehensive campaign management tool can boost your productivity, regardless of your industry, target market, or company size. By utilizing a reliable lead generation system, you can minimize errors and streamline your campaign planning and management tasks. With the help of a lead generation tool, you can efficiently create, refine, and execute your optimal marketing campaigns. Following the complete set of instructions and keeping up to date with marketing campaign management can enhance your product or service's audience traffic.

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