INFO SEEKER

PROJECT INSIGHT

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1.1 Introduction to Project

Info-Seeker is an automated information managing system which is specially designed for Sett & Lucas. This software wraps the standard financial data automatically from the top financial sources. Not only this, the software manages itself to perform various analytical operations with the data scrapped. This software is easy to use compared to others of its kind it also opens a window for the analysts & others to easily access the software.

With a click, the analyst can get the balance sheet of tons of companies categorized into various sectors. This balance sheet is a form of a spreadsheet containing data extracted by the software. Using these data, the software creates another spreadsheet on its own that contains the mean and median value using the data from the previous spreadsheet.

With the mean and median value, the software draws a graph for a better understanding of the companies, also to track the trends. Since Sett & Lucas is based on M&A, the software also extracts the M&A related News Excerpts & Press Releases from the top sources such as CNBC, Bloomberg etc.

Info-Seeker works on the JAVA environment, and the software comes with a Bundle which consists of required java libraries hence any system may not require java to be installed for its working. The software will take care of itself if any library is required to perform any operation. The software has an inbuilt option for the user to send any queries to the developer, such that if in future the user faces any exception or require any updates in the software can use an operation attached with the software where the user can send the query by typing and no other information is required. The developer will be notified through mail and can contact the user for solving the query requested by the user. This simple feature is installed to make the software interactive and user friendly.

Sett & Lucas being an Asset Management Equity, taught me about the financial oriented side of any company. They made me to experience a magnificent reality about Big Data Analytics & Business Intelligence. The equity explained the major & minor functionality of a company, and how they interact with venture capitalists, implement their projects into reality, what is M&A field with crystal clear definitions. I was told to implement automated software which can does an employee's job in minutes. I gained an impulsive experience of Big Data, where it has been used and how, while implementing the project. I am very glad to work here as they provided the employees with great workspace ambiance and atmosphere. Thank you, Sett & Lucas, for this opportunity, Info Seeker will be officially used among the firm and its branches.

1.2 Tools & Technology Used

1.2.1 Platform

Front End: JavaFX

Back End: Java, MySQL, MS Excel

1.2.2 Hardware Requirements (Minimum)

Windows XP or Above

Pentium III 400MHz or Above

512MB RAM

15" Colour Monitor

Keyboard & Mouse

1.2.3 Software Requirements

Access to Internet

Any Software to Access Excel Spreadsheets

1.3 Project Explanation

Sett & Lucas' unlocking value is at the core of the investment banking business. An unbiased approach has built a formidable track record. Investment banking is a division of financial corporations that deal with the creation of new debt and security instruments, underwriting IPO processes, merge or acquire companies and help high net worth individuals and banks to facilitate high-value investments.

Sett & Lucas keep a track on certain equity and firm's financial resources. They use top financial resources like Yahoo Finance Analytics, Google Finance & Analytics, Capital IQ etc. Info Seeker is just an automated tool that any employee can use for scrapping financial information from the listed resources and perform some analytics that are required by the equity also can store the performed analytics into spreadsheets. Since the equity has the main focus on investment banking, the software also lists the current date's news on finance, merging and acquisitions (M&A), business etc from high rated financial resources such as CNBC, Bloomberg, MarketWatch, Reuters and so on. All the details are given below elaborately about the project implemented.

1.3.1 Resources Used

The internet has revolutionized many industries, and the financial services field is one that has been profoundly affected. By going online, millions of investors can research and analyze markets on their own, which has served to disintermediate them from brokers and professional money managers. It has also increased the hunger for reliable, frequently updated financial information.

Several sites have stepped in to fill that demand, including Yahoo Inc. (YHOO) and Google Inc. (GOOG). Both companies operate popular financial websites that provide stock quotes, financial market news, and general business news.

1.3.1.1 Yahoo Finance

Yahoo Finance is a media property that is part of Yahoo's network. It provides financial news, data, and commentary including stock quotes, press releases, financial reports, and original content. It also offers some online tools for personal finance management. In addition to posting partner content from a wide range of other web sites, it posts original stories by its team of staff journalists.

Yahoo! Finance rolled out shortly after Yahoo!'s debut in 1994. Yahoo! bills its Finance portal as its industry-leading business and financial news product, and the service has evolved from its desktop origins to utilize mobile and tablet apps.

Yahoo! Finance has a stated mission to help users make informed decisions regarding investments and financial markets. It provides financial data and a wide array of applications to help users obtain detailed and current market information. Perusing both websites, it seems clear that Yahoo! Finance has a better look and feel, as well as a lot more content

1.3.1.2 Google Finance

Google Finance was a website focusing on business news and financial information hosted by Google. Google Finance was first launched by Google on March 21, 2006. The service featured business and enterprise headlines for many corporations including their financial decisions and major news events. Stock information was available, as were Adobe Flash-based stock price charts which contained marks for major news events and corporate actions.

Google launched a revamped version of their finance site on December 12, 2006, featuring a new homepage design that lets users see currency information, sector performance for the United States market and a listing of top market movers along with the relevant and important news of the day.

Both Google and Yahoo! consistently rank among the top 15 most popular personal finance websites and are quite similar in the financial information that they provide. Both are free to users. However, their significance to their parent company is notably different.

Comparing each parent company's 10-K filing reveals that Google devotes much less time and description to its Finance channel than Yahoo! does. Google only mentions Google Finance once by name, calling it a Google-owned site that helps drive advertising revenue.

1.3.1.3 Key Differences

Both sites are popular, but Yahoo! Finance is nearly twice as popular as Google Finance. The January 2019 Statista estimates put Yahoo! Finance at an estimated 70 million unique visitors each month, while Google Finance is well behind at 40 million. This puts Yahoo! Finance in pole position while Google Finance is number four behind MSN MoneyCentral (65 million unique monthly visitors) and CNN Money (50 million).

Google Finance does have loyal followers, however. Some market participants appreciate that it emphasizes stock-charting capabilities, which is not a strength of Yahoo! Finance. Google also appears to offer more comprehensive real-time stock market quotes, though Yahoo! does offer some real-time capabilities. Some blogs have criticized Google for inaccurate market information.

However, Yahoo! has had its fair share of alleged data errors, too, although none are seen as major; the vast majority of information appears to be accurate and timely.

1.3.1.4 Key Takeaways

Both Yahoo! Finance and Google Finance are great at offering overall financial market information, stock quotes, and investment data.

The nearly 10-year lead that Yahoo! Finance has over Google Finance shows. Yahoo! Finance has more robust data and content capabilities and displays it more appealingly and efficiently.

1.3.2 Info Seeker

Info-Seeker is an automated information managing system which is specially designed for Sett & Lucas. This software wraps the standard financial data automatically from the top financial sources. Not only this, the software manages itself to perform various analytical operations with the data scrapped. This software is easy to use compared to others of its kind it also opens a window for the analysts & others to easily access the software.
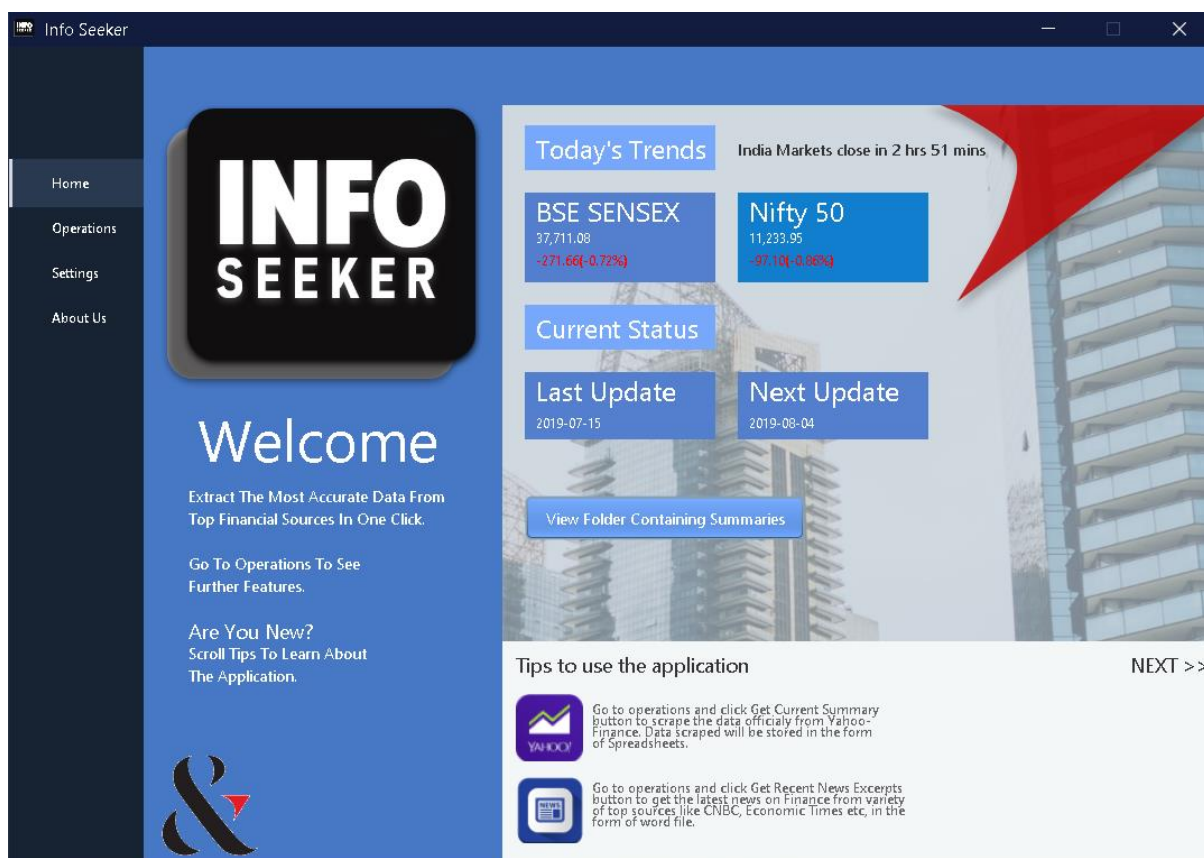

Fig 1.2 Interface of Info Seeker

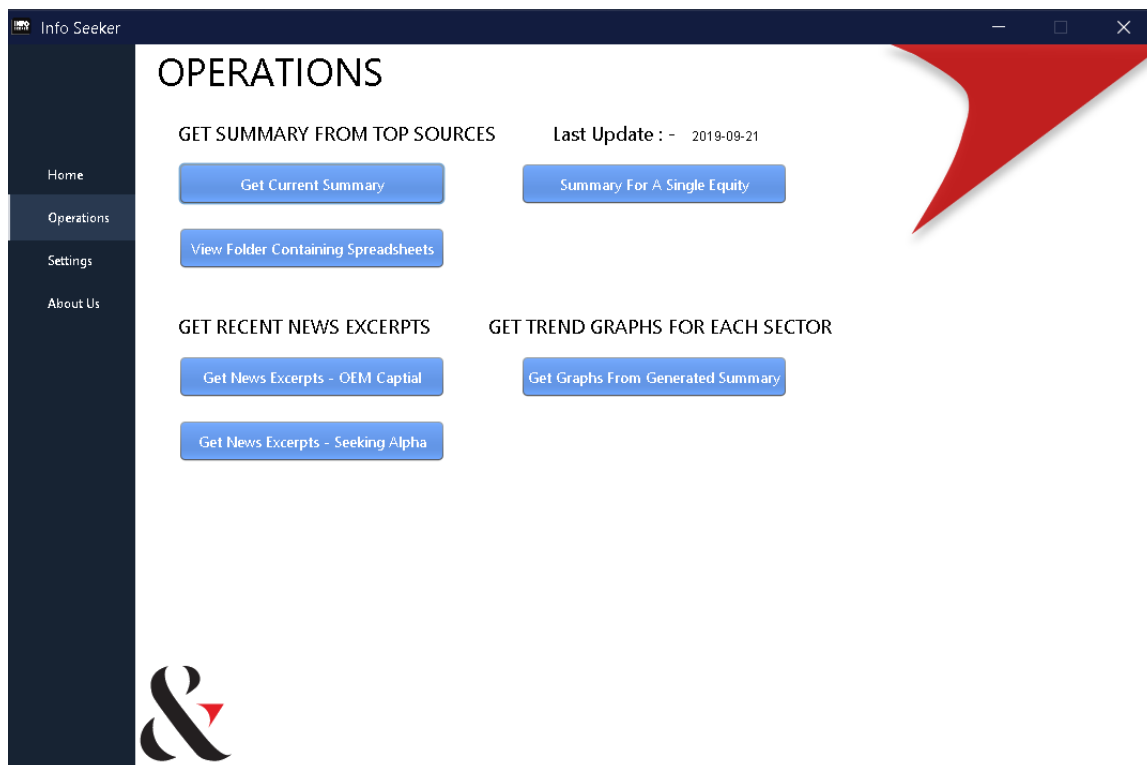Some of the controls available in the application are as follows.

Fig 1.3 Operations Interface of Info Seeker

1.3.2.1 Get Summary

The most important feature of this application is Get Summary, the control that has the most usage in the software. In this control, the user can choose the appropriate option and get the summary of the companies in one click. The summary is nothing but the financial data that is scrapped from the resources we saw above. This control not only does the scrapping information also uses the scrapped data for performing analytics predefined in the software. Once the analytics is completed all these data are stored in various spreadsheets, under a main folder which is created with the current date as the name of the folder, while the execution of the get summary occurs. The user can view the folder and have access to all the spreadsheets.

Fig 1.4 Spreadsheets created after extraction

1.3.2.2 Get Summary for an Equity

This control asks for the ticker symbol of the equity that is needed to be searched, that's enough for the software to get the data that the user required. The dialog frame consists of a Text Area which displays the scrapped information from the listed resources. The user cannot download it as a spreadsheet, they can just view the data for some references instead of getting a summary for entire lists of companies for just a case to find details of a particular company. Thus, this control also contributes equal importance to the previous control in this software by helping the user's reference as quickly as possible.

	A	B	C	D	E	F	G	H	I
1	Digital Agencies	MV	EV	Revenue	EBITDA	EV/Revenue	EV/EBITDA	Beta	Short T Debt
2	Omnicom Group Inc	18550	23160	15130	2340	9.89	1.53	0.34	499
3	WPP Plc	15466	20884	19520	2302	9.07	1.07	1.12	729
4	Publicis Groupe SA	12347	14400	10059	1951	7.39	1.43	0.55	1002
5	Dentsu Inc	9890	10060	10059	1951	0	0	0.62	51536
6	The Interpublic Group of Companies Inc	9030	14560	8260	1310	11.13	1.76	0.75	0
7	Next Fifteen Communications Group Plc	673	680	340	50	13.67	2	0.51	6
8	Huntsworth Plc	431	541	281	47	11.51	1.92	-0.34	0
9	M&C Saatchi Plc	380	392	528	33	11.76	0.74	0.97	0
10	MDC Partners Inc	185	1610	1480	159	10.1	1.09	0.62	NA
11	Enero Group Limited	91	70	163	13	5.19	0.43	0.42	NA
12									

Digital Agencies | Digital Tranformation | Enterprise Software | IT Professional Services - Euro | IT Services

Fig 1.5 Summaries extracted

	A	B	C	D	E	F	G	H
1	Digital Agencies	MV	EV	Revenue	EBITDA	EV/Revenue	EV/EBITDA	PE Ratio
2	High	18650	22910	19551	2340	1.89	1.89	39.01
3	Median	6711	8590	6591	1017	1.16	1.16	16.42
4	Mean	4925	5895	4870	734	1.27	1.27	13.19
5	Low	93	67	163	13	0	0	0
6								

Digital Agencies | Digital Tranform ...

Fig 1.3 Performing some analytics

	A	B	C	D
1	Median	Values		
2	Digital Agencies	8870		
3	Digital Tranformation	14481		
4	Enterprise Software	204904		
5	IT Professional Services - Euro	3958		
6	IT Services - India	21390		
7	IT Services - U.S	17757		
8	IT Staffing Services	1948		
9	Software as a Service	22362		
10				

EV-LTM Sales | EV-LTM EBITDA | LTM ...

Fig 1.4 Categorizing sectors

8

1.3.2.3 Get Recent News Excerpts

News excerpts are nothing but the news articles. There are plenty of sources on the internet that provides articles on various fields. Since the firm is relayed on finance orientation, we mainly concentrate on finance-related news articles. Some high rated news sources such as OEM Capital, Seeking Alpha, CNBC and Bloomberg are used for extracting news articles provided in their official websites, the software also extracts the date and time the news has released with its URL so that if any user shows interest on any particular news, they can go through it briefly by accessing these URLs provided. All the extraction of data is stored in a word document and stored in the folder generated which is when created through Get Summary control. The name of the file will be the source used and which field it is about.

Recent News Excerpts & Press Releases

Fri, Jul. 12, 4:36 PM
Community Bank completes Kinderhook Bank acquisition
Community Bank System (NYSE: CBU) closes on its merger with Kinderhook Bank (OTCQB:NUBK) in an all-cash deal with valued at ~$93.4M. The deal adds 11 branches across a five-county area in the Capital district of upstate New York. Upon completion, Community Bank System will have more than $11.0B in assets and more than $9.0B in deposits.
https://seekingalpha.com/news/3477544-community-bank-completes-kinderhook-bank-acquisition

Fri, Jul. 12, 4:36 PM
Flex Pharma stockholders back Salarius merger; shares up 15% after hours
At its special meeting, Flex Pharma (NASDAQ: FLKS) stockholders voted in favor of all merger-related proposals associated with its planned tie-up with Salarius Pharmaceuticals announced in January. The transaction should close in the coming weeks. The combined company will do business as Salarius Pharmaceuticals. Shares are up 15% after hours.
https://seekingalpha.com/news/3477543-flex-pharma-stockholders-back-salarius-merger-shares-15-percent-hours

Fri, Jul. 12, 1:47 PM
Ohr Pharma and NeuBase complete merger
Ohr Pharmaceuticals (OHRP +16.4%) and NeuBase Therapeutics have completed their merger , first announced in January. The combined company will do business as Neubase Therapeutics and will trade under the ticker "NBSE" starting Monday, July 15.
https://seekingalpha.com/news/3477506-ohr-pharma-neubase-complete-merger

Fig 1.8 Overview of News articles

Name	Date modified	Type	Size
OEMCapital(Ecommerce - M&A).docx	13-09-2019 17:16	Microsoft Word D...	3 KB
OEMCapital(Hardware & Systems - M&A...	13-09-2019 17:15	Microsoft Word D...	8 KB
OEMCapital(IT Services - M&A).docx	13-09-2019 17:16	Microsoft Word D...	7 KB
OEMCapital(Software - M&A).docx	13-09-2019 17:15	Microsoft Word D...	13 KB
OEMCapital(Telecom Services - M&A).d...	13-09-2019 17:16	Microsoft Word D...	4 KB
SeekingAlpha.docx	13-09-2019 17:14	Microsoft Word D...	23 KB

Fig 1.9 Documents created after extracting News Excerpts

1.3.2.4 View Current Working Folder

This control is used for viewing all files that have been generated by the software till the date. Whenever the software is used, a subfolder will be created in the main folder, which consists of all the generated files and outputs. And the file has the date when it was generated as the folder name. On multiple access of the software, many subfolders will be created in the main folder like a history of usage of the software. Therefore, the user can use this control to view the complete subfolders created so far and have access to any files under them.

Name	Date modified	Type	Size
2019-07-15	24-07-2019 12:49	File folder	
2019-08-02	31-08-2019 15:32	File folder	
2019-08-03	03-08-2019 00:13	File folder	
2019-08-04	04-08-2019 15:04	File folder	
2019-08-05	31-08-2019 12:04	File folder	
2019-08-29	29-08-2019 23:00	File folder	
2019-08-30	30-08-2019 23:06	File folder	
2019-08-31	31-08-2019 11:22	File folder	
2019-09-01	01-09-2019 23:44	File folder	
2019-09-02	02-09-2019 15:01	File folder	
2019-09-03	03-09-2019 00:14	File folder	
2019-09-10	10-09-2019 23:50	File folder	
2019-09-11	12-09-2019 07:20	File folder	
2019-09-13	09-10-2019 15:36	File folder	
2019-09-16	16-09-2019 20:37	File folder	
2019-09-17	17-09-2019 23:28	File folder	
2019-09-21	09-10-2019 15:37	File folder	

Fig 1.10 Viewing the folder containing spreadsheets

1.3.2.5 Settings

The Settings control helps the user to change the compatibility of the software. If User wishes to change any controls or options, they can go to settings and look for the availability of their requirement. The Settings consist of certain operations like, manipulating the index file which consists of all the input data, change the database setting and all basic settings that a software has. If the setting that the user expects is not available, they can send a query to the developer stating their query and we will do the particulars to their problem definition.
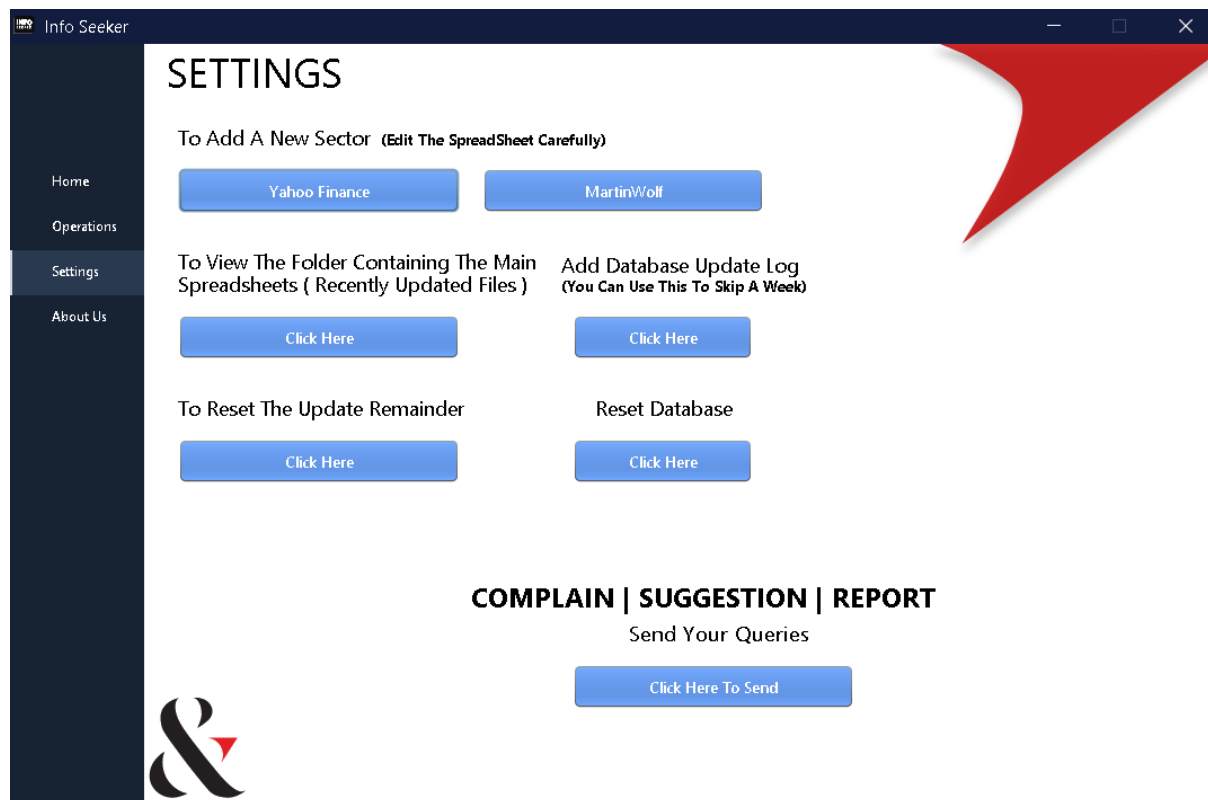

Fig 1.11 Settings Interface

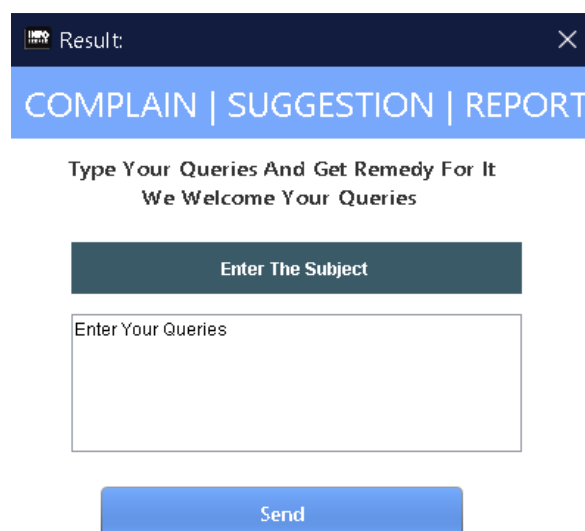## 1.3.2.6 Remainder Settings

The Remainder Settings control helps the user to change the remainder of the usage of the software. This operation uses a database for manipulation of the remaining dates. The user can choose the gap between the current usage and when they want to use it next. If User wishes to change any controls or options, they can go to settings and look for the availability of their requirement. The Settings consist of certain operations like, manipulating the index file which consists of all the input data, change the database setting and all basic settings that a software has. If the setting that the user expects is not available, they can send a query to the developer stating their query and we will do the particulars to their problem definition.

1.3.2.7 Add New Companies / Sectors

This software works with some basic spreadsheets which consists of companies belonging to different sectors such that the software will generate summaries for the listed companies. This is in the form of a spreadsheet called Index which is stores as the essential file in the software folder. The user cannot directly make changes in the file, he can visit this only through settings available in the software. Through this, he gets access to the file and a pop up occurs stating how the changes should be made. If an order goes wrong the software might malfunction as it extracts the data from the file. The user must handle the file with care. If the setting that the user expects is not available, they can send a query to the developer stating their query and we will do the particulars to their problem definition. Therefore, this control high importance comparing with the other controls.

1.3.2.8 Send Us Any Complaint or Queries

The amazing feature of the software is that if the user faces any problems or gets stuck with some errors of any kind, the user can just send us the query in easy steps, just mentioning the subject of the query and the message. The team behind the info seeker will review the query and solve their issue by providing a patch file. The team will receive the entire data of the user who faces the issue. This comforts the team for resolving the issue. This option is available in the settings. This option requires an internet connection for its working. Therefore, info seeker makes the software more user friendly by providing such features, as the user may not be dumped with a form and make them fill it up which we see as a waste of time.

Fig 1.12 Complain Dialog Frame

1.3.3 Functional Requirements

Operating system	Windows 10 Creators Update (64-bit) – Version 1703 (build 10.0.15063) or later. For information on upgrading your Windows OS version, see How to get the Windows 10 Creators Update.
Processor	Intel ® or AMD processor with 64-bit support
Display	1280 x 800
Internet	Internet connection and registration are necessary for required software activation, validation of subscriptions, and access to online services. Voice capabilities require users to be connected to the Internet to preview their prototypes.
RAM	4 GB of RAM
Graphics	Minimum Direct 3D DDI Feature Set: 10. For Intel GPU, drivers released in 2014 or later are necessary. To find this information, launch "dxdiag" from the Runmenu and select the "Display" tab.

1.4 Project Importance

Info Seeker takes all the stress, strain, mistakes and time out of extracting the financial data into handwritten or spreadsheets by any employee. Once the software is set up, any employee can control every aspect of generating or extracting the financial data from the listed sources. The user may not perform any analytics, the software itself does every predefined analytical operation by itself.

The software keeps the user updated with the current market's news and other financial, business-oriented news excerpts, which is considered to be the most interactive feature of the software application. The software not only saves the time of the employees, but also helps in updating their knowledge. Another one of the benefits of Info Seeker is that the user can interact with the developer if they have any issues or queries or suggestions or complaints regarding the working of the software.

1.4.1 Limitation of the Project

1. Internet connection is a must for operating the software, as it throws exception until the network is found.

2. The software will take minutes for generating the data.

3. The time of operation varies with the speed of the network, the operation will be executed quickly in fast network connections and vise versa for the weak network connections.

1.4.2 Future Scope for Project

The project can decrease the work of employment through its automated process. The software will come up with more additional features with high user interface and user experience design to make it user compatible and user friendly. The software will also come with eloquent automated controls to reduce manpower which can be initiated in other fields.

1.5 Result & Discussions

Info Seeker is an automated information managing system which is specially designed for Sett & Lucas. This software wraps the standard financial data automatically from the top financial sources. Not only this, the software manages itself to perform various analytical operations with the data scrapped. This software is easy to use compared to others of its kind; it also opens a window for the analysts & others to easily access the software.

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Thank you, Sett & Lucas for this opportunity, while stepping out I carried great experience and memories. Team members were really helpful for allowing me to grow in the areas I wanted. This internship was great because when I started working on a client's project, they threw me in at the deep end.