



# ATM Locator Using Data Scraping Technique

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**ABSTRACT:** Data mining is the concept of extracting required data from a large datasets. There is plenty of information (facts, numbers and text) available in the world that is so connected via the internet. Although this data are available for extracting, transforming, formatting and loading into data warehouse (master database) system. Analyze the stored data for our business needs, And present the data in a useful format, such as graphical representations like map. Data scraping is a technique in which a computer program extracts data from human-readable output coming from another program any web content which are good that can be viewed on a webpage that can be scraped and stored and used for our business needs. Most businesses depend on the web or internal applications to gather data that is crucial to their decision making processes. Automating information gathering whether they are from websites or applications can significantly help businesses that reduce costs, time and manual errors.

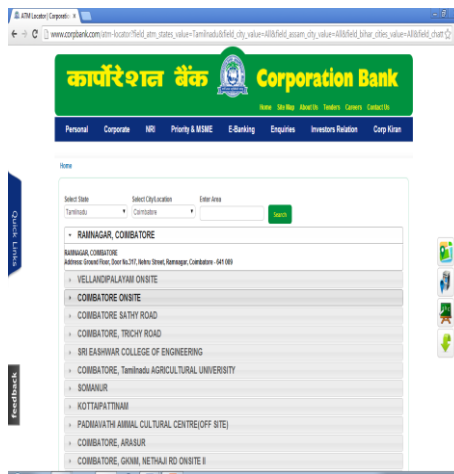
**KEYWORDS:** data scrapping,

## I. INTRODUCTION

We are in an age often referred to as the information age. In this information age, because we believe that information leads to power and success, and thanks to sophisticated technologies such as computers, satellites, etc., we have been collecting tremendous amounts of information. Initially, with the advent of computers and means for mass digital storage, we started collecting and storing all sorts of data, counting on the power of computers to help sort through this amalgam of information. Unfortunately, these massive collections of data stored on disparate structures very rapidly became overwhelming. This initial chaos has led to the creation of structured databases and database management systems. The efficient database management systems have been very important assets for management of a large corpus of data and especially for effective and efficient retrieval of particular information from a large collection whenever needed. The proliferation of database management systems has also contributed to recent massive gathering of all sorts of information. Today, we have far more information than we can handle: from business transactions and scientific data, to satellite pictures, text reports and military intelligence. Information retrieval is simply not enough anymore for decision-making. Confronted with huge collections of data, we have now created new needs to help us make better managerial choices. These needs are automatic summarization of data, extraction of the “essence” of information stored, and the discovery of patterns in raw data.

## II. EXISTING SYSTEM

To find a location of the ATM centres for a specific bank in a map either we need to search for the locations in internet or we need to enter into the bank website and search for the locations. Bank websites provide us only the text based information not in a graphical representation like showing in map to get the exact place. The reason why the nationalized banks websites do not showing their locations as map in their website because there is a possibility of mismatches between their addresses and locations on the map. And also Google address in database is wrong. Google Map provides only limited Bank ATM locations .Hence there is no proper solution for this problem.



**2.1. Drawbacks of existing system**

It needs to find out the location of ATM. It has text based Address is only and Mismatch between their addresses and locations on the Google map.

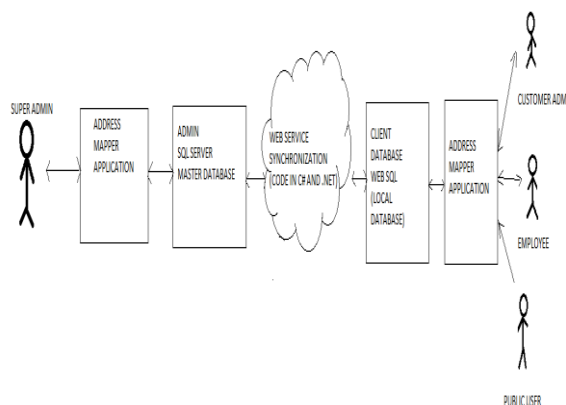
**III. PROPOSED SYSTEM**

Proposed system is to develop a component in for finding the ATM location using data scraping technique. Using data scraping technique addresses from the bank websites will be scraped automatically and will be stored in the SQL Server. It acts as a Data warehouse. This stored addresses will be get extracted and will be stored in the Web SQL .Hence the data will be stored on the client side. Application will be alone hosted in the cloud and everything will be run on the client side. Exact ATM location address will be added by the Bank employee and exact location will be hold in Web SQL.Finally it will get uploaded to SQL Server (Master Database).Once the application is launched user just need to login and get the exact location for ATM in Map.

**3.1 System Architecture**

The project is done as per the following modules, Super admin has the entire control over the application, and his main work is to scrap the data from the bank website and to store it in the SQL server (Master database). Application users are Customer Admin, Bank Employee, and Public User.

As there was no a specific software tool for INDIAN NATIONALIZED BANKS to find the ATM locators in a city in a map view, we develop a component or a software for ATM locators. The user will be provided with username and password. He just need to login and select the bank name and city name, automatically the software generates a map view for all the ATM locations for the specified city with the addresses in a map. Therefore the user will get a exact location and the efficiency of the search is also increased.



**Fig 1**Example of system architecture



Super Admin will scrap the data from the bank website and store it in SQL server. Customer Admin will download the states, city, address from the SQL server and will store it in the local database. For synchronizing the data, the code is written in C# and .NET. For scraping the data from the web, JSON script is used.

### 3.2 Data Scraping

Data transfer between programs is accomplished using data structures suited for automated processing by computers, not people. Such interchange formats and protocols are typically rigidly structured, well-documented, easily parsed, and keep ambiguity to a minimum. Very often, these transmissions are not human-readable at all. Thus, the key element that distinguishes data scraping from regular parsing is that the output being scraped was intended for display to an end-user, rather than as input to another program, and is therefore usually neither documented nor structured for convenient parsing. Data scraping often involves ignoring binary data usually images or multimedia data, display formatting, redundant labels, superfluous commentary, and other information which is either irrelevant or hinders automated processing.



Fig 2 Data scraping service

Data scraping is most often done to either interface to a legacy system which has no other mechanism which is compatible with current hardware, or to interface to a third-party system which does not provide a more convenient API. In the second case, the operator of the third-party system will often see screen scraping as unwanted, due to reasons such as increased system load, the loss of advertisement revenue, or the loss of control of the information content.

Data scraping is generally considered an ad hoc, inelegant technique, often used only as a "last resort" when no other mechanism for data interchange is available. Aside from the higher programming and processing overhead, output displays intended for human consumption often change structure frequently. Humans can cope with this easily, but computer programs will often crash or produce incorrect results.

## IV. SCREEN SHOTS

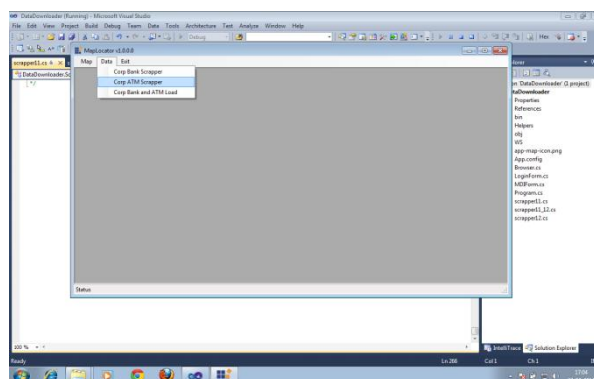


fig 3 Corp ATM Scrapper

When we run the data downloader application, a window appear with an option Corp ATM Scrapper, when it is clicked Bank Web site will be called and ATM address will get scraped.



#### 4.2 Create account and login

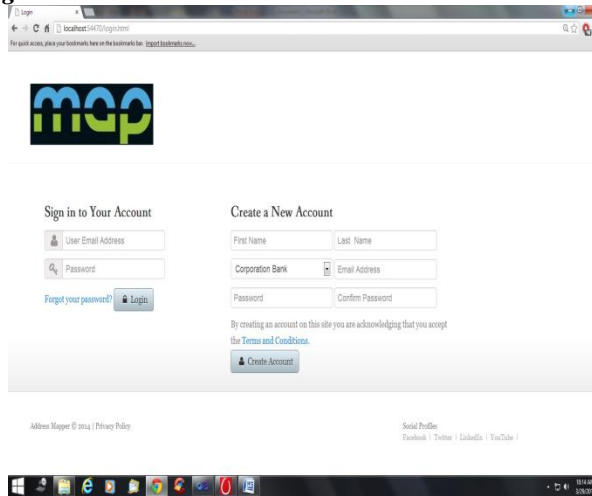


fig 4. User Management

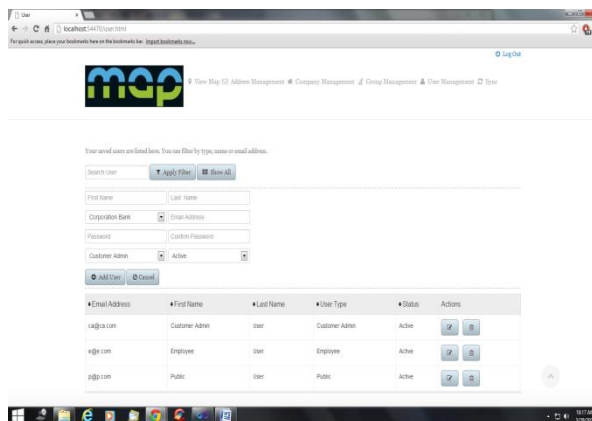


fig 5 Company Management

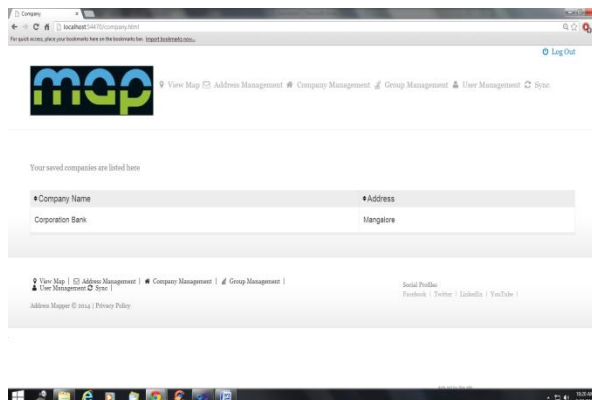


fig 6 Group Management

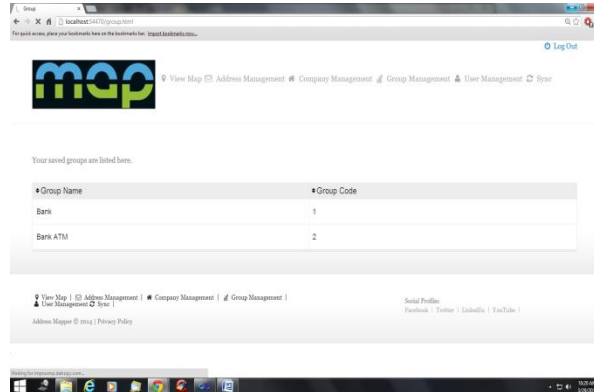


fig 7 Address Management

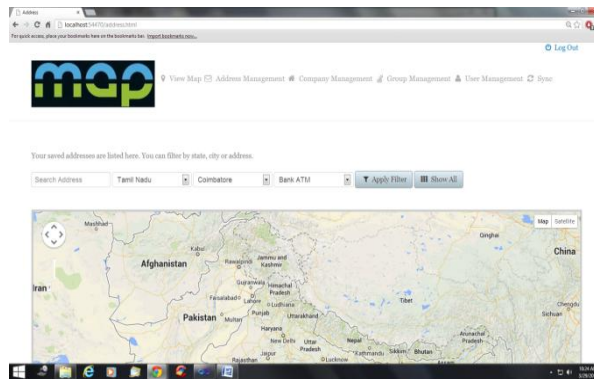
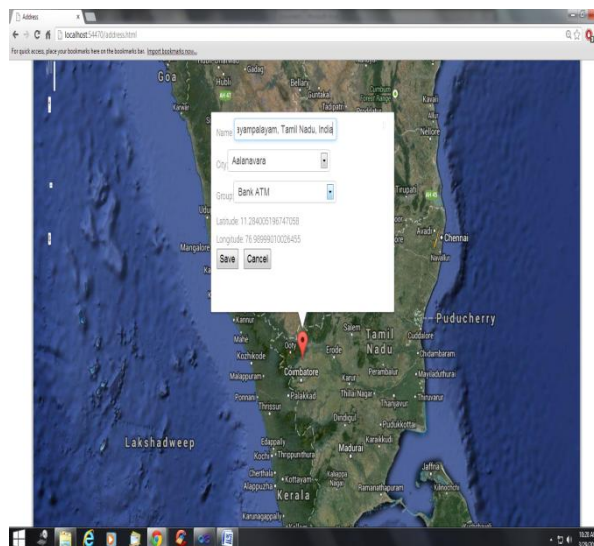


fig 8 Addition of ATM and list out



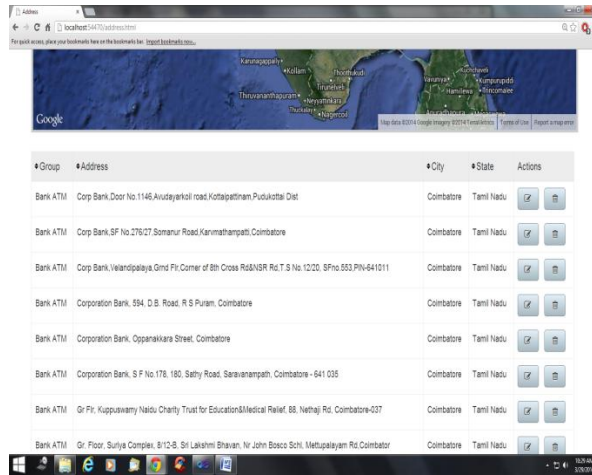


fig 9 Synchronization

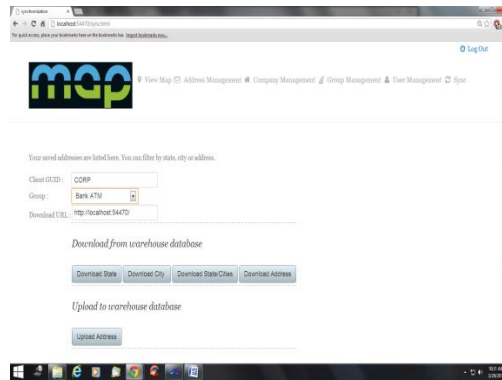
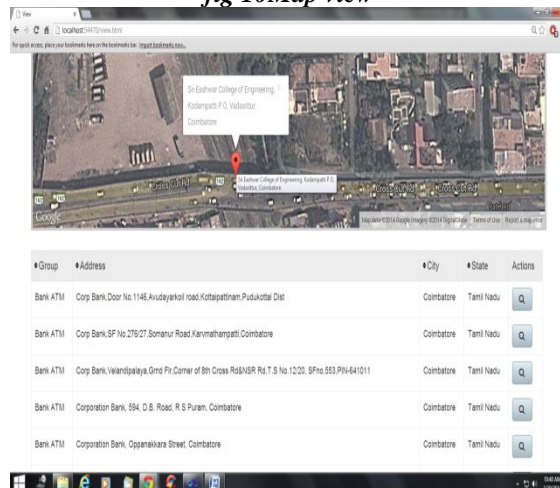


fig 10 Map view



## V. CONCLUSION

The mismatch between the Bank's address and google database entry were rectified and a suitable platform is made for maintaining a accurate database. The user can find exact location of ATM in the form a Map View and also the efficiency of the search is also increased .The addresses stored in our SQL Server where exact and finally we will give our addresses to google database. So that they can update in their database and provide exact location. Our future work is to enhance group management by adding Bank's other sectors and also to enable GPS in our Application, so that they can view their current location.



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