Applying Relational Online Analytical Processing for Job Street

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Abstract

This paper provides Online Job Searching.The main purpose of this system is to develop an online job for jobseekers and employers in finding job searching and employees searching at online information using agent approach. This job online system reduces time that search for job and benefits both jobseekers and employers. This system successfully provides a free, fully functioning job-search service .For jobseekers, the work that they want to search can see in online at one time and can communicates with employers.

1. Introduction

Job Searching is the essential need for any organization. Nowadays, Business needs to communicate with each other on the web. The use of computer based system in Online Job Searching and information is now commonplace all over the world. Online system reduces time that you go to anywhere and meet with anyone who you want to meet. This system developed online job for both job seekers (individuals searching for a job) and job posters (employers searching for candidates) to communicate with each other. Jobseekers can search job title for their required job and employers.

An information agent is a computational software entity (an intelligent agent) that may access one or multiple, distributed information sources and maintains information on behalf of its user(s) just-in-time [3]. An information agent (IA) is a special case of an agent and provides users with information for job searching in online. Its task is to support other agents in retrieving data sources.

Data warehousing technology supports information by integrating data from operational systems and external sources in a separate database/the data warehouse (DW) [5].

OLAP is an acronym for online analytical processing. It is an approach to quickly provide the answer to complex analytical queries. OLAP is a methodology to provide end users with access to large amounts of data in an intuitive.

While small OLAP applications use multidimensional database systems, large OLAP applications rely on relational (ROLAP) databases for efficient data storage and retrieval. ROLAP databases use specialized data models for data storage in order to answer queries efficiently.

2. Related works

A.Suman[5] discussed the techniques of data storage, organization, and retrieval have changed with drastic changes in media and access tools. He implemented the new generation of libraries has to adopt emerging tools and techniques. He also found data warehousing and OLAP have emerged as leading technologies that facilitate data storage, organization and then, significant retrieval. Their aimed at exploring the features of data warehousing and OLAP and their application in modern libraries for knowledge discovery.

According to W.H.Inmon[3], a leading architect in the construction of data warehouse systems, a data warehouse is a subject-oriented, integrated, time-variant and non-volatile collection of data in support of management's decision making process.

H.Tang [4] established ROLAP (Relational OLAP) is a technology used to allow end users to quickly analyze relational stored data from different dimensions and hierarchical relationships among analysis variables, ROLAP operations as drill-down, drill-up, and rotation.

3. Theorial Background

Information agent is an agent that provides information between job seeker and employers at online and than updates not only job seeker's information but also employer's information. An intelligent information agent is a computational software entity that is capable of accessing one or multiple, heterogeneous and

distributed information sources, proactively searching for, mediating, and maintaining relevant information or services on behalf of its human users, or other collaborating agents, at any time and anywhere. In other words, information agents are supposed to cope with the difficulties associated with the information overload of the user. Communication skills of an information agent include either communication with information systems and databases, human users, or other agents [4]. Information agents are computation software systems that have access to multiple, heterogeneous and geographically distributed information sources. One of their main tasks is to perform active searches for relevant information in non-local domains on behalf of their users or other agents. This includes retrieving, analyzing, manipulating, and integrating information available from multiple autonomous information sources. The information agents have to face up to the increasing complexity of modern information environments, ranging from relatively simple in-house information systems, through large-scale multidatabase systems, to the visionary Infosphere ('Cyberspace') in the Internet [5].

Data warehouses are collections of historical, summarized, non-volatile data, which are accumulated from transactional databases. They are optimized for On-Line Analytical Processing (OLAP) and have proven to be valuable on assisting decision-making. The data in a warehouse are conceptually modeled as hyper-cubes where each dimension represents some business perspective, like products and stores. DW is an integrated repository of data that is put into a form that can be easily understood, interpreted, and analyzed by the people who need to use it to make decisions. Data are extracted from operational systems, then cleansed, integrated, transformed, and aggregated, into a read-only database that is optimized for decision-making. Data Warehouse is a subject-oriented, integrated, time-variant, non-volatile collection of data in support of management's decision-making process [1].

Online Analytical Processing (OLAP) can be defined as the interactive process of creating, managing and analyzing data, as well as reporting on the data -this data being usually perceived and manipulated as though it were stored in a multi-dimensional array. OLAP systems can be used to intuitively, quickly, and flexibly manipulate operational data using familiar business terms and allows for the real-time analysis of data stored in a database. OLAP is a component of Decision Support System (DSS). OLAP queries are complex aggregated computation queries over large data set. Speed is primary goal of OLAP application [10].

3.1 Type of OLAP

1. Multidimensional OLAP (MOLAP)
2. Relational OLAP (ROLAP)
3. Hybrid OLAP (HOLAP)
4. Desktop OLAP (DOLAP)

Relational Online Analytical Processing ROLAP is a form of online analytical processing (OLAP) that performs dynamic multidimensional analysis of data stored in a relational database rather than in a multidimensional database. ROLAP use relational or extended-relational DBMS to store and manage warehouse data and OLAP middle ware to support missing pieces. ROLAP includes optimization of DBMS backend, implementation of aggregation navigation logic, and additional tools and services. ROLAP is considered more scalable but is the slowest at pre-processing and query performance. ROLAP tools access the data in a relational database and generate SQL queries to calculate information at the level when an end user requests it. Since ROLAP uses a relational database, it requires more processing [25, 6].

ROLAP supports larger user groups and greater amounts of data and is often used when these capacities are crucial, such as in a large and complex department of an enterprise. In this thesis, ROLAP can be select because they intend to re-use existing relational database tables. ROLAP architectures access data directly from data warehouses. ROLAP is very well suited for dynamic consolidations. Relational OLAP Architecture allows people to "drill anywhere" in the entire relational database. ROLAP can handle large amounts of data and the data is stored in a standard relational database and can be accessed by any SQL reporting tool (the tool does not have to be an OLAP tool. ROLAP works directly with relational databases, the base data and the dimension tables are stored as relational tables and new tables are created to hold the aggregated information [6].

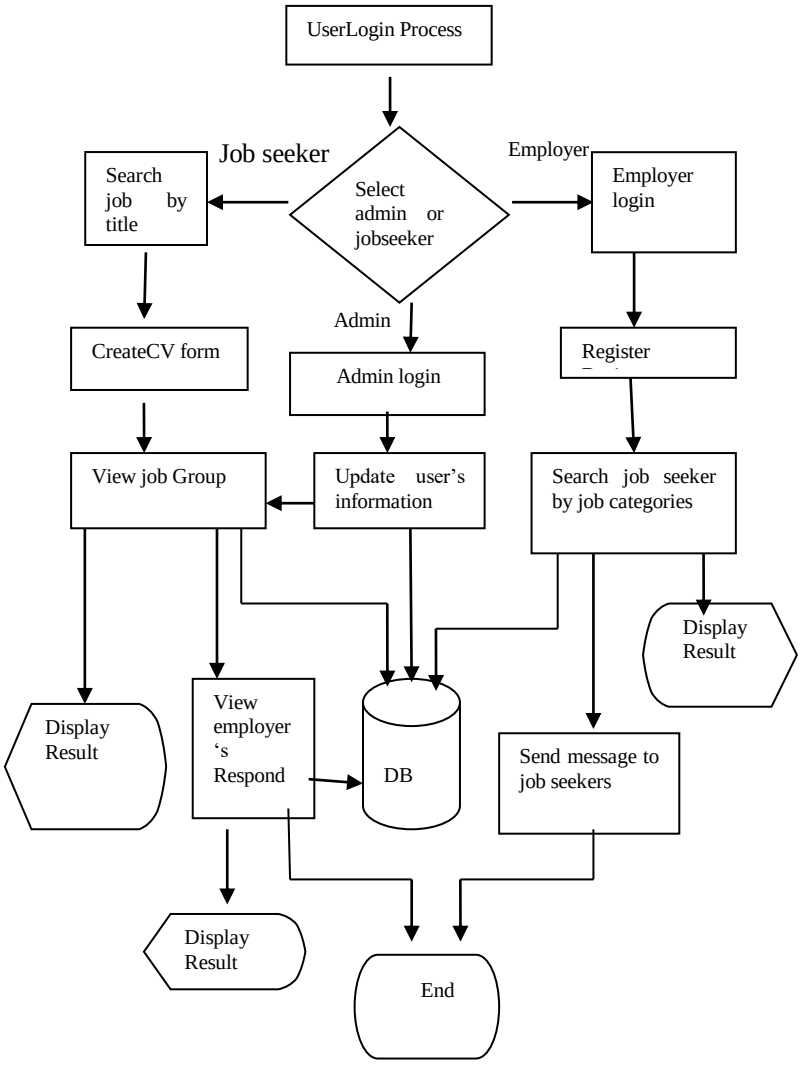
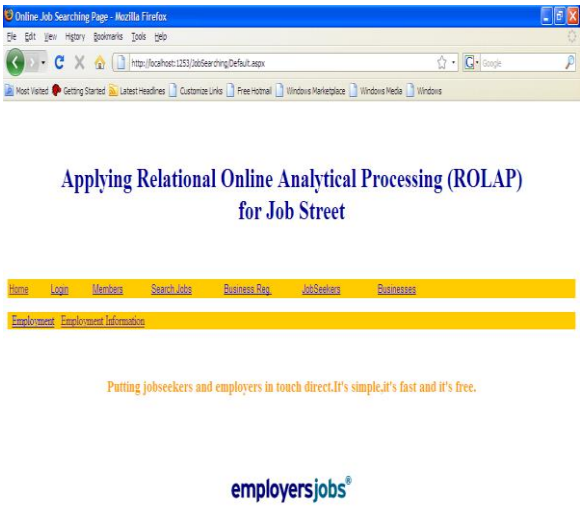


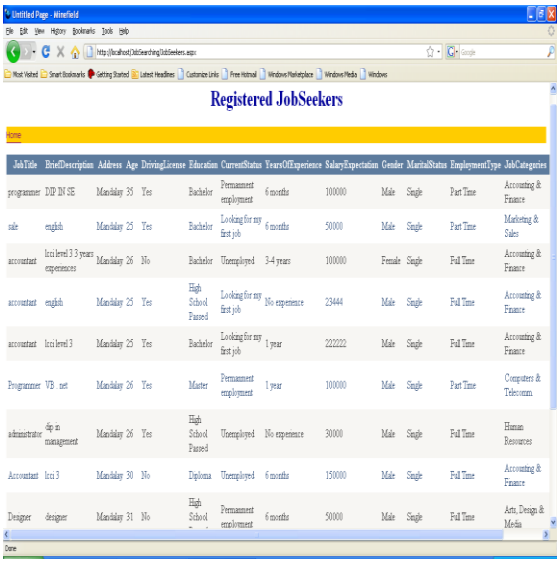
Figure 1. System Design

4.Result

This form is used to the Home Page of the system. There are nine paths in main menu. They are Home, Login, Members, Search Jobs, Business Reg; Jobseekers and Businesses, Employment, Employment Information.

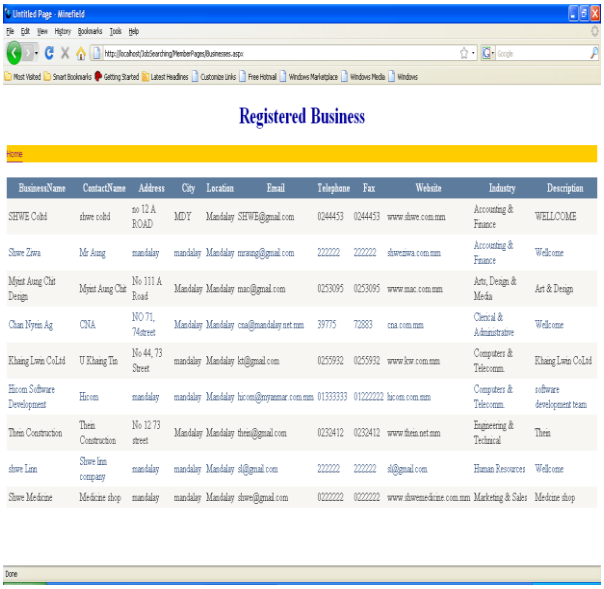


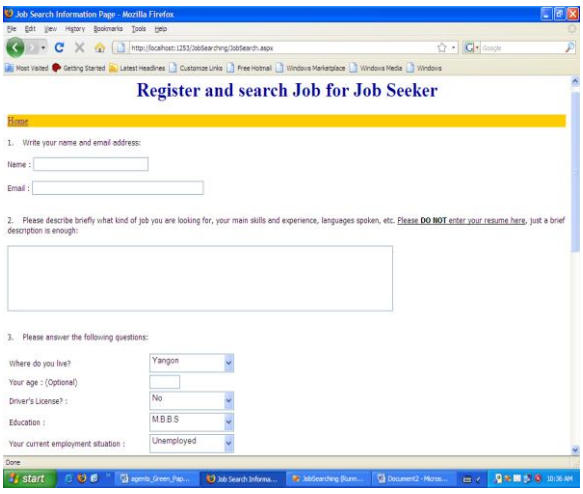
This form is used for employers. In this form, any Employers want to see list of Jobseekers.



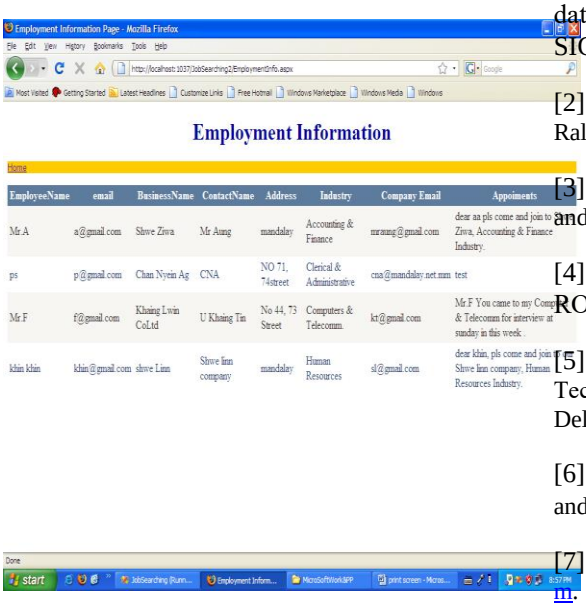
This form is used for Jobseekers. In this form, any Jobseekers want to see list of Job.

This form is used to search job for jobseekers. Jobseekers can add title and their CV form. The jobseeker type requirement data and then Click Send button. After Clicking Send button, if job is registered by the employer, available Job form will appear.





In this page, job seekers can see message from employers.



5. Conclusion

This system used information agent to search job information on the online. This system can save money and time consume because employee does not need to the employer and can know where the work can be received. ROLAP is a technologies aimed to store data in the database and to retrieve data from existing storage database. This system used information agent to provide information between job seeker and employers at online and updates not only job seeker's information but also employer's information. This system provides Job searching at using Online. The system can only display job information what type of work the employer need and what type of work the employee apply. ROLAP supports larger user groups, greater amounts of data and is often used when these capacities are crucial, such as in a large and complex department of an enterprise.

6. References

[1] S.Chauduri and U.Dayal, "An overwiew of data warehousing and OLAP rechnology". SIGMOD Record, 26(1):65-74, March 1997.

[2] D.Kuropka, "Personal Information Agent" Ralph Kimbal, Ed. J. Wiley & Sons, Inc, 1998.

[3] W.H.Inmon "Data Warehousing, Data Mining and OLAP:" ISBN-0-07-006272-2, Aprial 1996.

[4] H.Tan, "Managing Quality Properties of ROLAP" January. 2003.

[5] A.Suman, "Data Warehousing and OLAY Technology", 2nd International CALIBER-2004, New Delhi, 11-13 February, 2004.

[6] J.Han and M.Kamber "Data Mining: Concepts and Techniques, Morgan Kaufmann, 2001.

[7] www.dbgroup.unimo.it/IIA/briefintroduction.html.

[8] www.dbgroup.unimo.it/IIA/motivations.html

[9] htt://en.wikipedia.org/wiki/olap.

[10] htt://en.wikipedia.org/wiki/ROLAP.

[11] htt://en.wikipedia.org/wiki/data warehouse.