

A Knowledge based Multi Agent System for Extracting Cloud Services from Large Scale Database

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ABSTRACT

The Knowledge based Autonomous Intelligent multiple Agent approach is to retrieve the relevant Cloud Services from huge Scale Database. Cloud Computing is the one of the booming technology. Cloud computing delivers infrastructure, platform and software service. which are made available as subscription based services in a pay as you go model to consumer. This service can be effectively extracted with the helpful multi agent system. Which is capable of intelligence behavior .An intelligence multi agent system is autonomous software system which can act on behalf of human. This agent is used to retrieve the cloud service from the large scale database. This Research work deals with the usage of MAS(multi agent system) in the cloud computing and how it help in searching.

Key word: Multi Agent System(MAS), Knowledge, Cloud service, rank, IaaS, PaaS, SaaS.

1. INTRODUCTION

Cloud computing provide elastic services, high performance and scalable data storage to a large and everyday increasing number of users. This computing is dynamically adapt to user and application needs. Cloud computing is the distributed computing by providing advanced internet service i.e., find suitable website, service, grid computing, green computing ,peer to peer network [1,2].

Cloud

Cloud computing can be defined basic of processing ,storage resource “*Cloud model promotes availability and is comprised of five key characteristics, three delivery models, and four deployment models.*” and it has three types of service.1.Infracture as a service(IAAS), 2.Platform as a service(PAAS),3.Software as a service(SAAS).

IAAS

It is a provision model in which an organization outsources the equipment used to support operation, including storage, hardware, servers and networking components [3].

PAAS

It is a category of cloud computing services that provides a computing platform and a solution stack as a service.

SAAS

It is a software distribution model in which application are hosted by a vendor or service provider and made available to customers.

Client:

Client is requesting program it may be person or user. It is used to connect server program.

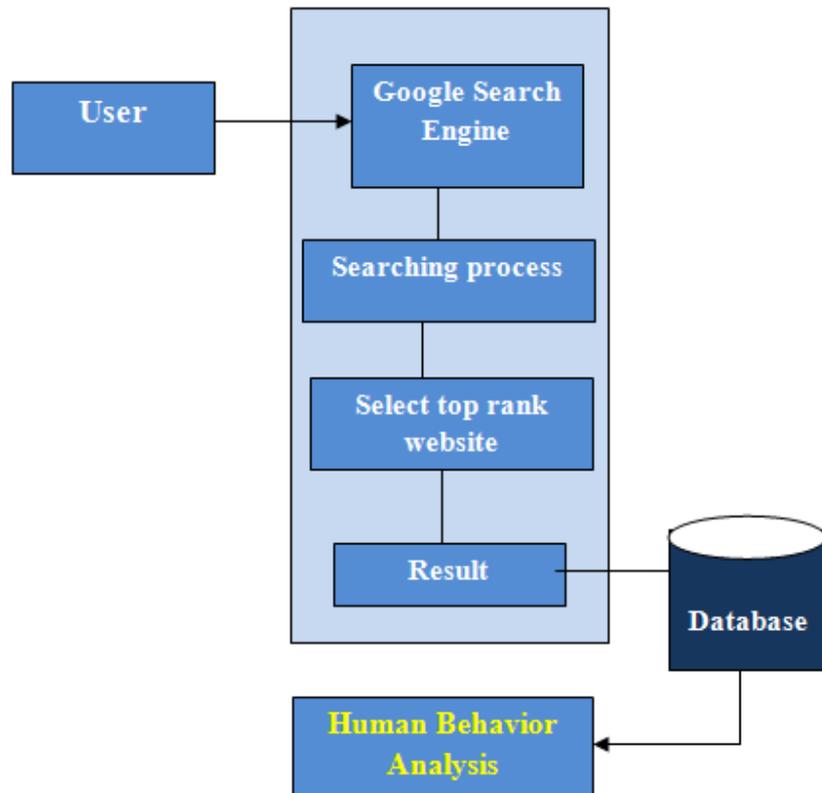
Manager

The manager work is to monitor the all client and agent or the manager control overall architecture. The manager decide to add extra client or delete some client.

Client and server

The client and server communication between request and response based model. The client was request to server and the server accept the client request then response to client.

Architecture

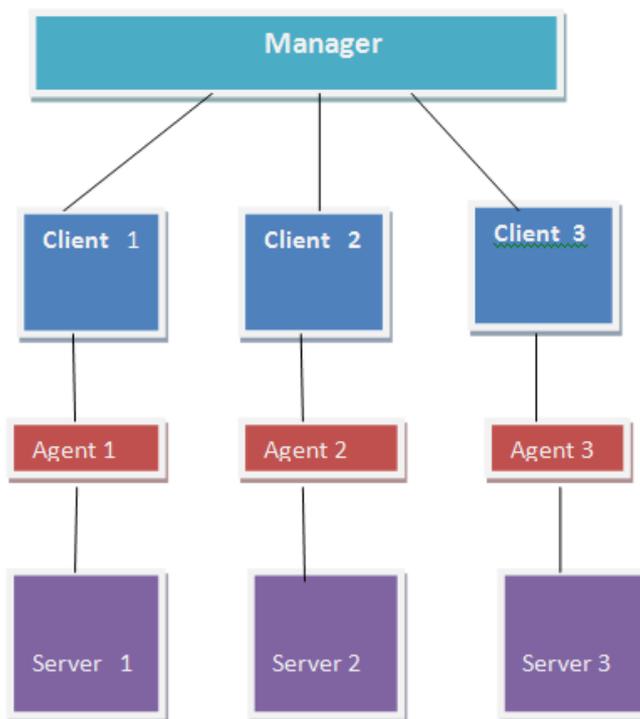


Multi agent system

It is a computerized system composed of multiple interacting intelligent agent within an environment .The multi agent system that used to saving the user time , the behavior is user friendly model and very efficiency. . From the figure shown below we can understand that a group of agents form a relationship and similarly other groups and they communicate between them [6].

The main objective of this research work is to compose variety of relevant cloud services and provide unified virtualized service to cloud customers by using federation (single ‘sign on’) mechanism to improve the trust degree of providers. The Automated cloud service will be provided by using Brilliant A* star heuristic optimization algorithm [4]. The Traditional identity management system (Single ‘sign-on’) fails when the number of users increases. Also providers have issues in trust degree of providers. The service composition techniques are used to compose the various cloud services. It has some drawbacks to select the relevant cloud services [5].

Relationship between manager and agent



Knowledge based agent searching cloud computing

The agent searching is suitable for client and server .It has two type of the agent 1.client agent 2.server agent .These process are running between user and server the user send the request from server the user agent is known as the client agent .The server side agent accept the client request .Then the server side agent search the suitable service for client request then it provide the cloud service it is called as server response. So the agent is very flexible and efficient.

The platform service can be used to the search smart proactively and search the customer needs . It being interact with software. So it provide the excellent service to customer .The agent driven adaptor used to share the data from one location to another location .It handle the connectivity problem and it search the all connection problem then resolve or overcome the problem.

These adapter technology is nice functionality because it easily identify when the problem is occur and resolve the problem in any kind of critical situation.

In this Research work we are using RANK OPTIMIZATION ALGORITHM. It is a pair wise ranking algorithm and been based on a hand designed function method. In this algorithm used to measure quality and test web pages in different way.

Rank optimization algorithm is uniform ranking measures such as number of mis-order pair .the user or customer more interested one popular item or particular items and ignore other items. Thus it is more appropriate for ranker to spend effort and get the top most item [7,8].

This is made possible by viewing ranking as trying to learn an ordering of the data. This purpose we use the framework of learning with structure output.

Knowledge based Agent Searching Algorithm

The result for filtered $\{Fv(1), Fv(2), Fv(3), \dots, Fv(N)\}$ find out relationship of $q(1)$ on consumer queries $\{q(1), q(2), \dots, q(N)\}$ by word $t(1)$ in the $Fv(N)$ $\{v(1), v(2), \dots, v(N)\}$.

- a) Similarity analysis
- b) Equivalent analysis
- c) Numerical analysis

when two notions have the equal resemblance in the procedure 1) Similarity analysis since which is said to be sibling nodes, then do procedure

2) Equivalence analysis.

If 2 notion are mathematical principles, then follows the

procedure 3) Numerical analysis.

Otherwise, do Step 1) Similarity reasoning.

on 2, 3, 4, cumulative $Rca(s)$ above every terms in a page $\{v(1), v(2), \dots, v(N)\}$.

[Aggregation process] N

Cloud service usage term $rate(k)*weight(k)$

$k < 0$

here $Weight(k) = 1/N$ is regularly circulated.

5. Cloud Service usage are used for rating WebPages

6. Choose page that having maximum Cloud Service usage will be ranked as most excellent Cloud service.

The customer search product in Google app engine. Its search the product in indexed or some particular website and it find the product available or not. The product is available it display

them or its not available indexed website it display no result from this website the main aim is it avoid the unwanted website . finally the result will display the exactly manner.

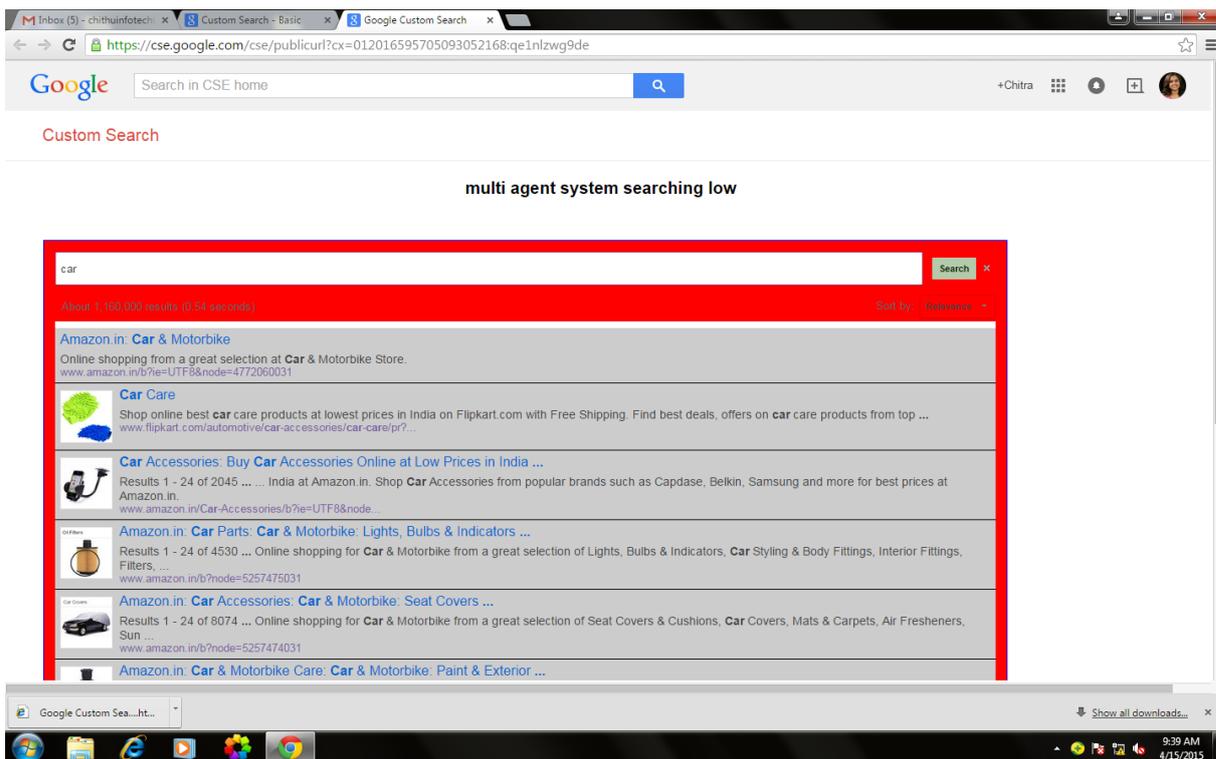
Google app engine is a cloud computing platform it derived from existing infrastructure it has some easy functionality because it is easy to scale, manage the data centers and support to the java application and sandbox application(sandbox is a software development application and it is purpose of security).The sandbox is used to run across multiple server.

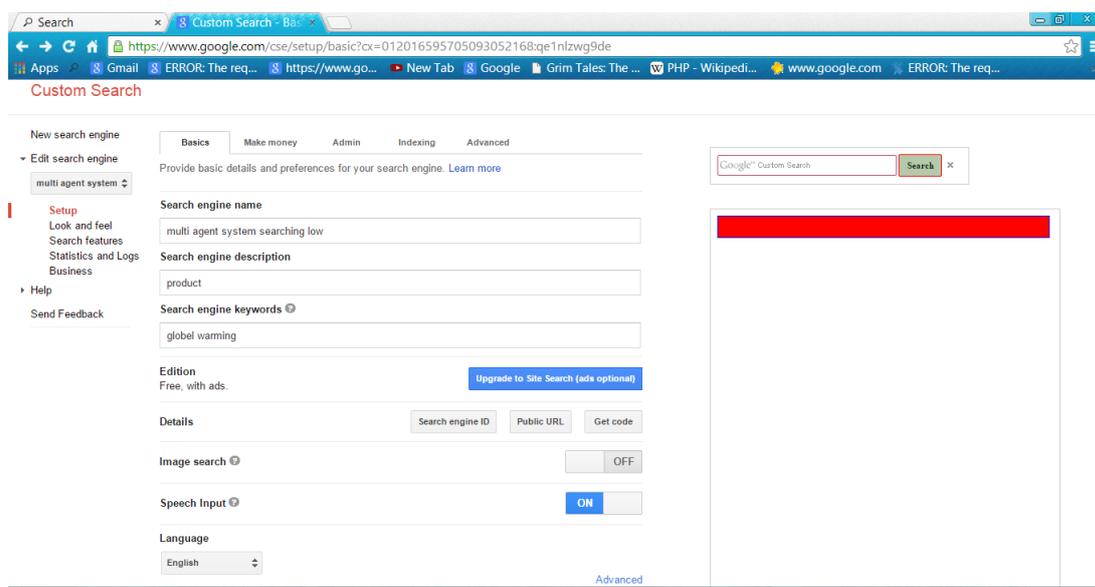
Google app engine is automatic scale application it allocate the more resource and handle the additional demand. The Google app engine work is count the number of request increase for an application and it store the additional storage bandwidth etc.

Conclusion

Thus the Research work describes about the MAS and discussed agents usage in the cloud . And it deals with how the intelligent agents can be used for searching the services in the cloud . In future Extracted cloud services are cataloged into a single package for the future reference for the customer without time delay and easy access.

Output





Extracted webpage.

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