



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

SEARCHING IN A MILITARY DATABASE

Suraj.P¹ Sujith.E² Ragunanthaan.R.A³

¹ III Year M.Sc. (Software Systems), Coimbatore Institute of Technology, Coimbatore, India.

Abstract ---- Cloud Computing roughly means computing through internet. The Present Cloud Communication models often leads to network overloading due to unoptimised set of data set to the cloud. The Instructions and Requests sent to the clouds are not processed until they reach the dedicated cloud server. This often lead to the unoptimised dataset. This paper aims to solve the complexity of searching in a database.

Keywords – Data Optimization, Amazon Web Service

Cloud

Cloud Computing can be defined in minimal terms as providing computing services over the internet. Cloud computing is usually provides by a third party vendor to an organisation that requires computing services as a part of their domain. Cloud Computing allows organisations to focus on their core functionality rather than creating computing infrastructures and resources. Cloud Vendors usually provides their services on “pay as you go” model. This offers organisations a reliable computing platform at their disposal.

Accessing Amazon Web Services

The Console facilitates cloud management for all aspects of your AWS account, including monitoring your monthly spending by service, managing security credentials, or even setting up new IAM Users.

There are several ways for you to locate and navigate to the services you need. On Console Home, you can utilize the search functionality, select services from the recently visited services section, or expand the All

services section to browse through the list of all the services offered by AWS.

At any time, you can also select the Services menu in the top-level navigation bar, which includes the search functionality and the list of all services, either grouped, or arranged alphabetically.

Dynamo DB

Amazon Dynamo DB is a no relational database that delivers reliable performance at any scale. It is a fully managed, multi-region, multi-master database that provides consistent single-digit millisecond latency, and offers built-in security, backup and restore, and in-memory caching.

Problems with traditional cloud computing

In traditional cloud all the instructions and requests are sent to the cloud server. These Instructions are only processed and verified only when it reaches the server. The only process undertaken by the host device is enabling the transmission. The host systems often use only a very low amount of their processing power for the data transmission. This increase the idle time of the host device and leads to wastage of resources. Traditional IoT devices are employed for the specific purpose gathering of data and sending the data to the cloud rather than pre-processing it. IOT devices also contain inbuilt processors and logical devices which can be used for minimal computation. This problem can be solved either by providing the host device with absolutely minimal resource needed for the cloud access or by utilising the idle resources of the host device. This leads to increase in network

loads.

For the ease of access of military database

This paper aims to solve the complexity of searching in a Database. Firstly we create a database and add attributes to it. Using custom search and using the key attributes we find the items easily. This helps in searching the data's

Searching for Individual Terms in Amazon Cloud Search

When you search text and text-array fields for individual terms, Amazon Cloud Search finds all documents that contain the search terms anywhere within the specified field, in any order. For example, in the sample movie data, the title field is configured as a text field. If you search the title field for *star*, you will find all of the movies that contain *star* anywhere in the title field, such as *star*, *star wars*, and *a star is born*. This differs from searching literal fields, where the field value must be identical to the search string to be considered a match.

begin

```
{
  "status": {
    "rid": "rd+5+r0oMAo6swY=",
    "time-ms": 9
  },
  "hits": {
    "found": 3,
    "start": 0,
    "hit": [
      {
        "id": "tt1951265",
        "fields": {
          "title": "The Hunger Games: Mockingjay -
```

Part 1"

```
    }
  },
  {
    "id": "tt1951264",
    "fields": {
      "title": "The Hunger Games: Catching
```

Fire"

```
    }
  },
  {
    "id": "tt1392170",
    "fields": {
      "title": "The Hunger Games"
    }
  }
]
```

```
}
}
```

To specify multiple terms, separate the terms with a space. For example: *star wars*. When you specify multiple search terms, by default documents must contain all of the terms to be considered a match. The terms can occur anywhere within the text field, in any order.

Cloud Watch

Amazon CloudWatch is a monitoring and management service built for developers, system operators, site reliability engineers (SRE), and IT managers. CloudWatch provides you with data and actionable insights to monitor your applications, understand and respond to system-wide performance changes, optimize resource utilization, and get a unified view of operational health. CloudWatch collects monitoring and operational data in the form of logs, metrics, and events, providing you with a unified view of AWS resources, applications and services that run on AWS, and on-premises servers. You can use CloudWatch to set high resolution alarms, visualize logs and metrics side by side, take automated actions, troubleshoot issues, and discover insights to optimize your applications, and ensure they are running smoothly.

With Amazon CloudWatch, it is easy to get started. There is no up-front commitment or minimum fee; you simply pay for what you use. You will be charged at the end of the month for what you use

Trigger AWS Lambda Functions Using Amazon Simple Workflow

You can now use Amazon Simple Workflow to trigger your AWS functions. AWS Lambda is a compute service that runs your code in response to triggers and automatically manages the compute resources for you.

SWF allows you to manage the execution of Lambda functions in the context of a broader workflow. For example, when an image is uploaded to a web front-end, SWF could sequence Lambda functions to convert the image to a different format and add a watermark. SWF provides significant benefits, such as robust retry mechanisms upon failure, centralized application state tracking, and logical separation of application state and units of work. Now, these benefits can be leveraged to manage your Lambda functions.

Conclusion

By employing the search algorithm, we reduced the maximum load exerted on the cloud. Hence this paper aims to solve the complexity of searching in a database. It illustrates the importance of services availed by amazon web services.

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