Cloud Based Multimedia Protection System

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***Abstract* - The paper proposes another outline for extensive scale interactive media assurance frameworks. The outline use cloud frameworks to give cost proficiency, quick sending, versatility, and flexibility to suit changing workload. The proposed system can be used to protect different multimedia types, including videos, images, audio clips, songs. The main purpose of this work is to avoid duplication of multimedia in the cloud. The two videos are considered for processing one is original and other one is edited or copied one. Using the Matlab processing, the videos are converted into frames and the frames are compared with each other. The matched frames are stored in the local disk and notify the same to the user regarding replication of multimedia .The same matched frames are stored in the cloud. In this paper, a Gabor feature algorithm is proposed to efficiently measure video similarity. The paper defines video as a set of frames, which are represented as high dimensional vectors in a feature space. The work presents a framework for measuring video similarity across different resolutions - both in spatial and temporal. The videos are compared in the n x n matrix form.**

Keywords: Multimedia, Video Copy Detection, Cloud Applications.

I. INTRODUCTION

The measure of data on the World Wide Web has developed tremendously since its creation in 1990. At this point, the web had more than one billion remarkably recorded pages

and 30 million sound, video and picture joins. Since there is no focal administration on the web, duplication of substance is unavoidable. A review done that 46% of all the video reports on the web have no less than one\near-copy". . Illegally redistributing multimedia content over the Internet can result in significant loss of revenues for content creators. Finding illegally-made copies over the Internet is a complex and computationally expensive operation, because of the large volume of multimedia content over the Internet and the complexity of comparing content to identify copies.

Comparative forms of a similar video's be found on the web when some web clients adjust and consolidate unique substance with their own creations. Distinguishing these comparative substance is valuable to many web video applications. One meaning of a video comparability measure appropriate for these applications is regarding the rate of comparable edges between two video arrangements. This is the video likeness measure utilized as a part of this paper. The term Cloud refers to Network or Internet. At the end of the day, we can state that Cloud is something, which is available at remote area. Cloud can give benefits over system, i.e., on open systems or on private systems, i.e., WAN, LAN or VPN. Cloud Computing refers to manipulating, configuring, and accessing the applications online. It offers online data storage, infrastructure and application. in this project Amazon cloud is using to store the data.

II. LITERATURE SURVEY

This chapter deals with the survey done prior to the design and development of the system. The survey includes study of various technologies used to create this application as a whole Few of the paper that has been referred for this project are:

- Abdelsadek, "Distributed index for matching multimedia objects,"M.S. thesis, School of Compute. Sci., Simon Fraser Univ., Burnaby, BC, Canada, 2014.
  This paper proposes another plan for substantial scale mixed media content insurance frameworks. The configuration use cloud frameworks to give cost effectiveness, fast sending, versatility, and flexibility to suit differing workloads. The proposed framework can be utilized to ensure diverse sight and sound substance sorts, including 2-D recordings, 3-D recordings, pictures, and music. The framework can be sent on private or public clouds. Here the framework has two novel segments: (i) strategy to make marks of 3-D recordings, and (ii) appropriated coordinating motor for sight and sound articles. The mark technique makes vigorous and agent marks of 3-D recordings that catch the motions in these recordings and it is computationally productive to process.This paper executed the proposed framework and conveyed it on two mists: Amazon cloud and our private cloud. Our analyses with more than 11,000 3-D recordings and 1 million pictures demonstrate the high exactness and versatility of the proposed framework.

- CONTENT SECURITY SYSTEM ON CLOUD BASED MULTIMEDIA by Ms Jasmine, Gudipudi. Balaiah

  Sight and sound figuring has created as a basic development to deliver, change, and look for media substance, for instance, pictures, outline, video, sound, and so forth. For blended media applications and organizations over the Internet and adaptable remote frameworks, there are strong solicitations for circulated processing because of the vital measure of computation required for serving an

extensive number of Internet or convenient customers meanwhile. This paper reviews brief composition on blended media dispersed figuring points and depict a segment of the security issues in disseminated processing, including data trustworthiness, data grouping, get the opportunity to control, data control in the encoded data area. The proposed system can be used to secure different intelligent media content sorts, including 2-D recordings, 3-D recordings, pictures, songs, and music. The structure can be passed on private or in public clouds. This paper stood out our structure from the YouTube and our results show that the YouTube protection system fails to recognize most copies of 3-D recordings, while our system perceives over 98% of them.

- VIDEO TO FRAME CONVERSION OF TV NEWS VIDEO BY USING MATLAB Punith Kumar M B 1, Dr. P.S. Puttaswamy.

The video is a one which plays a noteworthy in the today's life.the arrangement of edges will frame the shots and the gathering of shots will deliver the scenes, the mix of various scenes will shape the video. Keeping in mind the end goal to investigations any video, first we have to study then attributes of the edges and to break down the properties of the video this is finished by the video to frame change utilizing Matlab.
In this paper The video to edge identification should be possible by utilizing such a large number of programming's which are accessible in the market today.however when we are utilizing this product to get the edges from the video programming will choose in the start itself what number of edges we require every second so which shows that there will be an odds of missing the edges on which we are focusing all the more, regularly the number edges every second will be distinctive for the diverse cameras.

III. PROPOSED SYSTEM

The proposed framework can be utilized to identify interactive media including 2-D recordings, 3-D recordings, pictures and music. We conveyed parts of the framework on the Amazon cloud with differing number of machines. The programming devices utilized as a part of this venture is Matlab, Microsoft windows visual studio, Microsoft SQL server administration studio. The programming tools are SQL,C#, matlab codes. The name matlab is gotten from Matrix Laboratory . MATLAB works with frameworks.SQL is a standard language for storing, manipulating and retrieving data in databases. SQL stands for Structured Query Language it can retrieve data from a database.this sql sever management lets you access and manipulate databases.

SQL can execute queries against a database. Microsoft .NET is a dream and set of Microsoft programming advances for associating data, individuals, frameworks. Incorporated over the Microsoft stage, .NET innovation gives the capacity to rapidly assemble, convey, oversee, and utilize associated, security-improved arrangements with Web administrations. .NET Framework is a platform for building programming. Utilizing Microsoft visual studio we are making client and the administrator login frame. New client need to enlist to transfer the recordings to the framework. The administrator have rights to keep up the client accounts. The admin have complete rights to maintain the user accounts and have a direct connection to the matlab. in the matlab videos are get converted into frames, each frames are compared in nxn matrix form .after processing ,the copyright violated video frames are detected and it will be storing in the local disk which we have given the destination path. The original video is stored in Amazon cloud. The one who upload the copied video they get a mail from the admin. SMTP provides a set of protocol that simplifies the communication of email messages between email servers. Most SMTP server names are written in the form "smtp.domain.com" or "mail.domain.com". the block diagrams shows the complete process.

Block Diagram

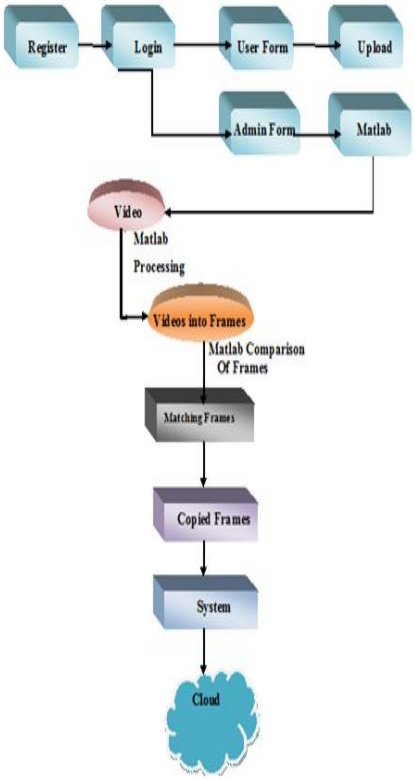
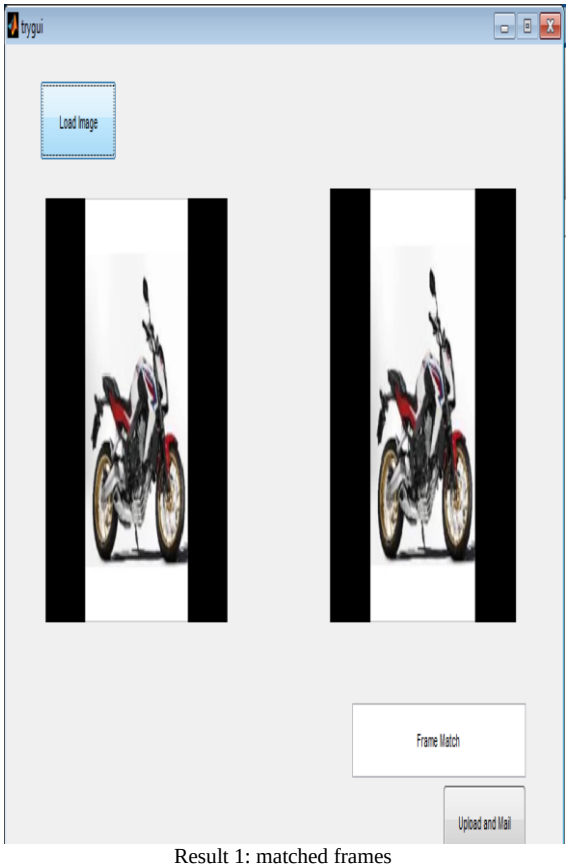


Fig 1: system architecture

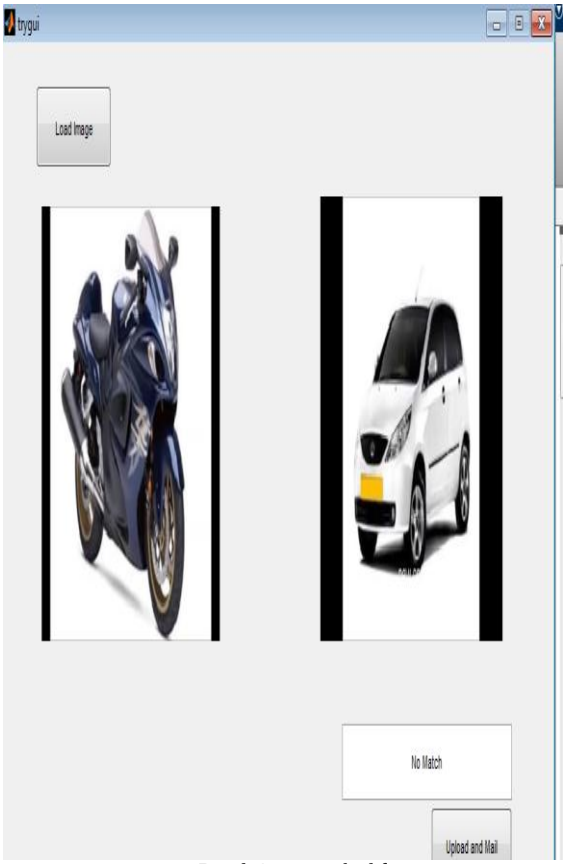
IV. EXPERIMENTAL RESULTS AND DISCUSSING

In this paper the two videos are getting converted into frames, each frame is compared with each other using matlab coding. Each matching process is showing in GUI. Using GUI we can view on screen process. . The matched frames are stored in the local disk and notify the same to the user regarding replication of multimedia. The matched frames is uploaded to the cloud. The term Cloud refers to a Network or Internet. In other words, we can say that Cloud is something, which is present at remote location. Cloud can provide services over network, i.e., on public networks

or on private networks, i.e., WAN, LAN or VPN. Cloud Computing refers to manipulating, configuring, and accessing the applications online. It offers online data storage, infrastructure and application. in this project Amazon cloud is using to store the data.



Result 1: matched frames



Result 2: unmatched frames

V. CONCLUSION

Disseminating copyrighted interactive media questions by transferring them to internet facilitating locales. For example, YouTube can bring about critical loss of incomes for substance makers. Frameworks expected to discover the duplicates. The proposed framework can be utilized to identify interactive media including 2-D recordings, 3-D recordings, pictures and music.In this paper, we design for multimedia protection systems using matlab processing.

VI. FUTURE ENHANCEMENT

The work in this paper can be extended in multiple directions. For example, our current system is optimized for batch processing. Thus, it may not be suitable for online detection of illegally distributed multimedia streams of live events. In live events, only small segments of the video are available and immediate detection of copyright infringement is crucial to minimize financial losses. To support online detection, the matching engine of our system needs to be implemented using a distributed programming framework that supports online processing. In addition, composite signature schemes that combine multiple modalities may be needed to quickly identify short video segments.

REFERENCE

[1] A. Abdelsadek "Distributed index for matching multimedia objects,"in IEEE 2014.
[2] A. Abdelsadek and M. Hefeeda, "Dimo: Distributed index for matching multimedia objects using MapReduce," in IEEE 2011
[3] Aly, M. Munich, and P. Perona, "Distributed Kd-Trees for retrieval from very large image collections," in IEEE 2012.
[4] J. Bentley, "Multidimensional binary search trees used for associativesearching," in IEEE 2011
[5] Cano, E. Batle, T. Kalker, and J. Haitsma, "A review of algorithms for audio fingerprinting," in *Proc. IEEE* Dec. 2002.
[6] J. Dean and S. Ghemawat, "MapReduce: Simplified data processing on large clusters."
[7] San Francisco, CA, USA, Dec. 2004.
[8] J. Deng, W. Dong, R. Socher, L. Li, K. Li, and L. Fei-Fei, "Imagenet: A large-scale hierarchical image database," in *IEEE Conf.*
[9] *Comput. Vis. Pattern Recog. (CVPR'09)*, Miami, FL, USA, Jun. 2009
[10] A. Hampapur, K. Hyun, and R. Bolle, "Comparison of sequence matching techniques for video copy detection," in *Proc. SPIE*
[11] *Storage Retrieval Media Databases (SPIE'02)*, San Jose, CA, USA, Jan. 2002.
[12] S. Ioffe, "Full-length video fingerprinting. Google Inc.," U.S. Patent 8229219, Jul. 24, 2012.
[13] A. Kahng, J. Lach, W. Mangione-Smith, S. Mantik, I. Markov, M. Potkonjak, P. Tucker, H. Wang, and G. Wolfe, "Watermarking techniques for intellectual property protection," in *IEEE* Jun. 1998.
[14] N. Khodabakhshi and M. Hefeeda, "Spider: A system for finding 3D video copies."