A Real Time Video Streaming Web Portal

Prof. Katkar M.D.[1], Miss.Shaikh S.N.[2]
[1, 2] Dept of computer Science & engineering
[1, 2] Vidya Vikas Pratishtan's Institute of Engineering & Technology, Solapur

Abstract- *Content-based video extracting is very essential now-a-days. The exisiting data mining algorithms are not directly applied to videos. This proposed work uses different data mining algorithms for indexing, clustering, searching and retrieving content-based videos. A system will be developed in which admin can upload videos on cloud server.Videos are sorted based on category and video sare automatically uploaded on Cloud Server on the schedule provided by the admin.Users can watch videos online,they can download videos based on video summary and users can rate videos that will beanalyzed by the system.This system automatically removes videos that are less popular so that user's time will not be wasted for watching the least rated videos. Users can share videos with other registered users without using another platform in the proposed system.*

Keywords- extracting, Cloud server

I. INTRODUCTION

The multimedia data including text, image, audio, and video have been produced massively. The digital videos rapidly became an important source for education, advertisements, promotions, and entertainment. Looking at the need of users at large digital videos, the system proposes to maintain the repository of videos on Cloud Server.Private cloud is a model of cloud computing where IT services are provisioned over private IT infrastructure for the dedicated use of a single organization. A private cloud is a computing model that offers a proprietary environment dedicated to a single business entity. The private cloud provides extended, virtualized computing resources via physical components stored on-premises or at a vendor's datacenter.Videos are automatically uploaded on Cloud Server on the schedule providedby the admin and videos are sorted based on the categories. Users can search for videos by keywords like title, date, and author so that content-based videos will be retrieved. Users can also decide to download the videos based on the summary provided for each video. The users can also watch videos online. Users can rate the videos so that the system can analyze the popularity of videos and this analysis is used further for deleting the least popular videos. Users can share videos with other registered users without using another platform in the proposed system

II. LITRAURE SURVEY

[1] Zhong Hanyang, Song Xin , Yan Zhenguo , "Vessel Sailing Patterns Analysis from S-AIS Data Based on K-means Clustering Algorithm". In this paper, a typical clustering algorithm called K-means is applied to deal with the Space-based AIS(S- AIS) data received by "TianTuo-3" satellite developed by National University of Defense Technology. They used Elbow Rule to determine the optimal number of clusters and calculate the normalized standard deviation of COG (Course Over Ground) and SOG (Speed Over Ground) o vessels in south Africa area as their features to conduct clustering. This method is supposed to evaluate vessels' sailing stability and used in detection of low-likelihood behaviors or anomalies of vessels. The real-time performance of one single AIS satellite is still poor, which shows the importance of establishing AIS satellite constellations in the future.

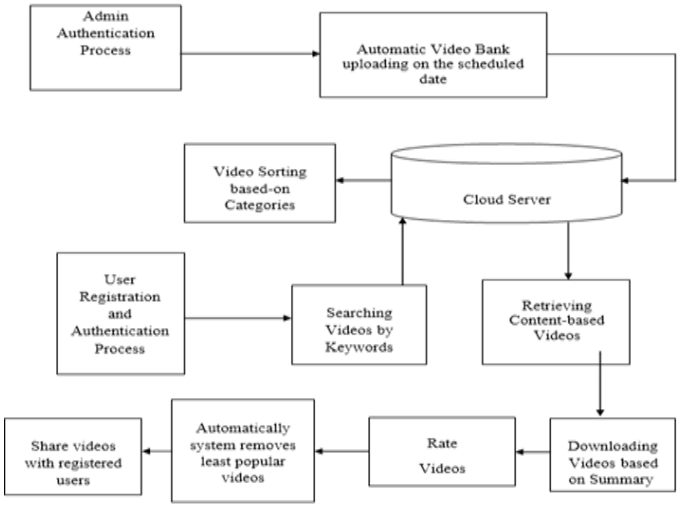
[2] Shalini L1, Gopali Naga Sravya2, "Analysis of Health-Tweets using K-means clustering". In this paper, they analyzed tweets from several records and using several sources like BBC health, CBC health, CNN health, everyday health, foxnews health, GDN health care, good health, etc. By combining the tweets from these 16 records, the top 5 clusters of positive and negative words are obtained by usingK-means clustering, the analysis is done on the number of positive and negative words present in those records, and the corresponding plot for the frequency of top 40 words is obtained. They find the views of different people related to the news on health in different channels.

[3]Anikin,RinatM.Gazimov,"PrivacyPreservingDataMiningin Terms of DBSCAN Clustering Algorithm in Distributed Systems". In this paper, they developed DBCSAN clustering algorithm, which can provide security ofinformation during all stages of distributed data mining process. It could be very useful for data mining techniques in distributed systems with big data.

[4] Uma Ojha, Dr. Savita Goel, "A Study On Prediction Of Breast Cancer Recurrence Using Data Mining Techniques". The main objective of this paper is to find how precisely these data mining algorithms can predict the probability of recurrence of the disease among the patients on the basis of important stated parameters. The research highlights the

performance of different classification and clustering algorithms on the dataset. Experiments show that classification algorithms are better predictors than clustering algorithms. The result indicates that the decision tree (C5.0) and SVM is the best predictor with 81% accuracy on the holdout sample and fuzzy c-means came with the lowest accuracy of 37% among the algorithms used in this paper.

Figure : CLOUD BASED PLATEFORM FOR VIDEO-ON-DEMAND SERVICE



III. METHODOLOGY

In previous researches of the video data mining any users can upload the videos, they can search and retrieves videos based on the keywords with less accuracy and are not able to remove the least popular videos automatically from a system. YouTube allows users to share only the video link not the actual video and uses another platform for sharing the link.

IV. RESULT

The Real-Time Video Streaming Web Portal project successfully achieved its goal of providing users with a robust, efficient, and scalable platform to stream live video content over the web. By leveraging modern web technologies and streaming protocols, the portal ensures low-latency, high-quality video delivery suitable for a range of use cases, including live events, education, gaming, and enterprise communication. this project not only demonstrated the feasibility of building a real-time video streaming portal but also laid the foundation for future enhancements such as AI-powered video analytics, multi-language support, monetization features, and integration with IoT and AR/VR technologies. The successful implementation marks a significant step toward the growing demand for live and on-demand digital video content.

REFERENCES

[1] K. S. K, B. M. K P, N. Patwari and S. D A, "DeepKidney: Multiclass Classification of Kidney Stones, Cysts, Tumors, and Normal Cases Using Convolutional Neural Networks," 2023 4th International Conference on Communication, Computing and Industry 6.0 (C216), Bangalore, India, 2023, pp. 1-5, doi: 10.1109/C2I659362.2023.10431043.

[2] Zhong Han yang, Song X in , Yan Zhenguo ,"Vessel Sailing Patterns Analysisfrom S-AIS Data based on K-means Clustering Algorithm", 978-1-7281-1282-4/19/$31.00 ©2019IEEE.

[3] ShaliniL1,GopaliNagaSravya2,"AnalysisofHealth-TweetsusingK-means clustering", IEEE 2018 , Volume: 05 Issue: 03 , e-ISSN: 2395-0056, p-ISSN:2395-0072.

[4] 3.Igor V. Anikin, Rinat M. Gazimov, "Privacy Preserving Data Mining in Terms of DBSCAN Clustering Algorithm in Distributed Systems", 978-1-5386-4307- 5/18/$31.00 ©2018 IEEE.

[5] Uma Ojha, Dr. Savita Goel, "A Study On Prediction Of Breast Cancer RecurrenceUsing Data Mining Techniques", 978-1-5090-3519-9/17/$31.00 ©2017IEEE.

[6] M. Siva sakthi, "Classification and Prediction based Data Mining Algorithms to Predict Students' Introductory programming Performance", 978-1-5386-4031-9/17/$31.00©2017 IEEE.

[7] Ngo, C.W., Pong, T.C., & Zhang, H.J. (2001). On clustering and retrieval of video shots. Proceeding of 9th ACM International Conference on Multimedia, 51-60.

[8] Oh, J., Lee, J., Kote, S., & Bandi, B. (2003). Multimedia data mining framework for raw video sequences. Mining Multimedia and Complex Data, Lecture Notes in Artificial Intelligence, Vol. 2797 (pp. 18-35). Springer Verlag.

[9] Okamoto, H., Yasugi, Y., Babaguchi, N., & Kitahashi, T. (2002). Video clustering using spatio-temporal image

with fixed length. Proceedings of 2002 IEEE International Conference on Multimedia and Expo, Vol. 1,53-56.

[10] Pan, J.U., & Faloutsos, C. (2001). VideoGraph: A new tool for video mining and classification. Proceedings of the 1st ACM/IEEE-CS Joint Conference in Digital Libraries, 116-117.

[11] Zhang, C., & Zhang, S. (2002). Association rule mining. Springer.