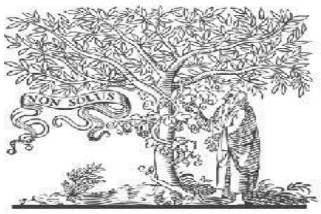
International Journal for Innovative Engineering and Management Research
A Peer Revieved Open Access International Journal
www.ijiemr.org

COPY RIGHT



ELSEVIER SSRN

IJIEMR Transactions, online available on 11th Jan 2023. Link :http://www.ijiemr.org/downloads.php?vol=Volume-12&issue=Issue 01

DOI: 10.48047/IJIEMR/V12/ISSUE 01/69

Title **Digital Content Streaming Service with Review, Rating and Parental Control System**

Volume 12, ISSUE 01, Pages: 725-733

Paper Authors

Dr.N.Anusha, DarmojuDeekshitha, Ghadiyaram Bhavya, Bachupally Mohitha

USE THIS BARCODE TO ACCESS YOUR ONLINE PAPER

To Secure Your Paper As Per UGC Guidelines We Are Providing A Electronic Bar Code

International Journal for Innovative Engineering and Management Research
A Peer Revieved Open Access International Journal
www.ijiemr.org

Digital Content Streaming Service with Review,Rating and Parental Control System

Dr.N.Anusha[1], Associate Professor,
VidyaJyothi Institute of Technology, Aziznagar, Hyderabad, Telangana , India.

DarmojuDeekshitha[*2], Ghadiyaram Bhavya[3], Bachupally Mohitha[4],
[2.3,4]UG Students,VidyaJyothi Institute of Technology, Aziznagar, Hyderabad, Telangana , India.

Abstract
In this hustling world, people search for entertainment to escape from their busy lives and have some relaxation. One such mode of entertainment is the use of Over-the-Top (OTT) platforms. There are many OTT platforms available in the market such as Amazon, Netflix, etc., for streaming digital content. The web application proposed in this paper inherits some of the present features of digital content provision services that are the most popular among OTT platforms. In addition, this web application has a parental control service and also some user-friendly services like rating and reviewing. In this application, in addition to viewing the content for entertainment, the users can also rate and review it online. The parental control service is one of the advantageous features provided by this application that limits the time spent by the user on this website, by freezing the application or by giving a reminder when the chosen time has elapsed. This application also displays Internet Movie DataBase (IMDB) rating, average of the user ratings, total number of ratings given and reviews given by the registered users of this website. Users can also view the content by filtering based on the genre. For remote access, the web application is deployed on the cloud with client server architecture using the Elastic Cloud Compute (EC2), an instance of Amazon Web Services (AWS).

Keywords: Application, AWS, Digital content streaming, EC2, Entertainment, IMDB, OTT.

Introduction

BigFix is the first independent Indian OTT platform in India, launched by Reliance entertainment in 2008. In 2010, Gurugram-based Digivive launched the first OTT mobile app in India, nexGTv. It offers live

TV and on-demand content. NexGTv is the first app to stream live Indian Premier League (IPL) matches on mobile devices in 2013 and 2014. According to an Eros Now-KPMG report, OTT viewers in India spend approximately services which is the result of immense growth and the commercialization of the high-speed Internet technology and global pandemic. Market leaders of digital content streaming services such as Netflix, HotStar, and Amazon Prime Video provide media services to the subscribed users to view on-demand digital content. With this, there is a steady increase in generation volumes of data related to the entertainment industry, so it is hard for people to find relevant and useful contents in such huge data [1].

The proposed application in this work makes it easy for movie admirers by recommending useful content. Providing a way to compare movie rating and reviews, reminder and freezing system that runs in background is more advantageous, as it to avoid users spending overtime in the application. Movie reviews play a crucial role for the success or failure of a movie. There are many sites available in the market like Rotten Tomatoes, Huffington post, Metacritic and ScreenRant where reviews are being written by real movie buffs and each site is rich in content. Viewers go through these reviews to decide whether to watch any movie or not. Cloud based architecture makes the website reliable and efficient.

Movies are a major form of entertainment. There are many sites focusing on movie information. On most of the websites, ratings and reviews from the users play an important role [2]. The success of a movie is confirmed but it is no secret that it is dependent to a large extent upon the level of advertisement and also upon the ratings received by the major movie critics.

The general audience values their time and money and hence, refers to the leading critics when making a decision about whether to watch a particular movie or not[3]. The increasing volume of online reviews and the use of review platforms leave tracks that can be used to explore interesting patterns. It is in the primary interest of any business to attract customers towards their services. Reviewers, on the other hand, tend to writereviews that can influence and attract people's attention, which often leads to deliberate deviations from past rating

behaviour. Until now, very limited studies have attempted to explore the impact of user rating behaviour on review helpfulness [4].

The cloud is one of the technologies where most of the innovation and growth happens these days. AWS is the platform of choice for business and institutional workloads [5]. AWS cloud technologies are exclusively used due to their maturity and the recent release of the other platforms [6]. Enterprises are integrating their applications to cloud systems. And this has led to emergence of many competing or parallel paradigms for architecting efficient and effective cloud solutions [7].

Cloud technology when used as multi-cloud systems like Roboconf and Ad Hoc Cloud Computing renders volunteer computing which is another paradigm of cloud events that offers increased productivity and efficiency [8].

Towards the accomplishment of integrating innovative Internet of Things (IoT) platforms, requires ubiquity, reliability, high-performance, efficiency, and scalability for provisioning of powerful decentralized services in the IoT, the contemporary technological trends led to the IoT and Cloud convergence. This combination created the approach of federated Cloud-IoT architectures. The application of cloud events may be most impactful in its combination with the IoT [9].

Methodology

The front end of the proposed web application in this work is developed using technologies Hyper Text Markup Language (HTML), Cascading Style Sheet (CSS), JQuery, Ajax and backend is developed using the technologies Hyper Text Preprocessing (PHP), Structured Query Language (MySQL), AWS.

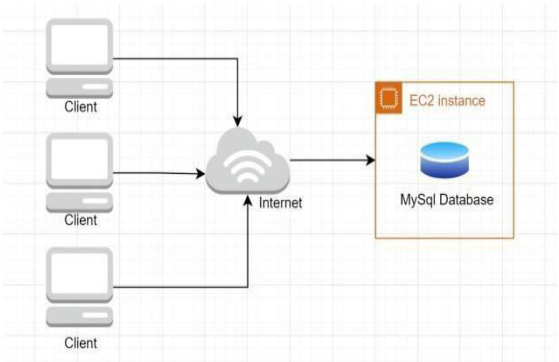


Figure 1.Architecture of the proposed web application

The web application is deployed on the cloud using Amazon Web Services, EC2 instances with client server architecture which allows HTTP, TCP, HTTPS traffic. The website can be accessed remotely by entering the public IP address of the server [11]. Client-server program is a

familiar concept in distributed computing and computer networks. It makes applications readily available anytime.

In the client-server model, each computer terminal or process on the network could be a client or a server. Client allows users to access and view its interfaces. Every client establishes the connection with the server and communicates with it. Client initiates the communication and server responds to the client's request [10].

The user interface is designed using HTML and Cascading Style Sheet (CSS).The database is the core of this website. Each user uses their own credentials to access this web application [12]. PHP query statements are used to access the MYSQL database system, by fetching website information stored in the MYSQL database, and find the pages related to the query information, to realize the query function of website information under the interaction of PHP and MYSQL [13] [14].

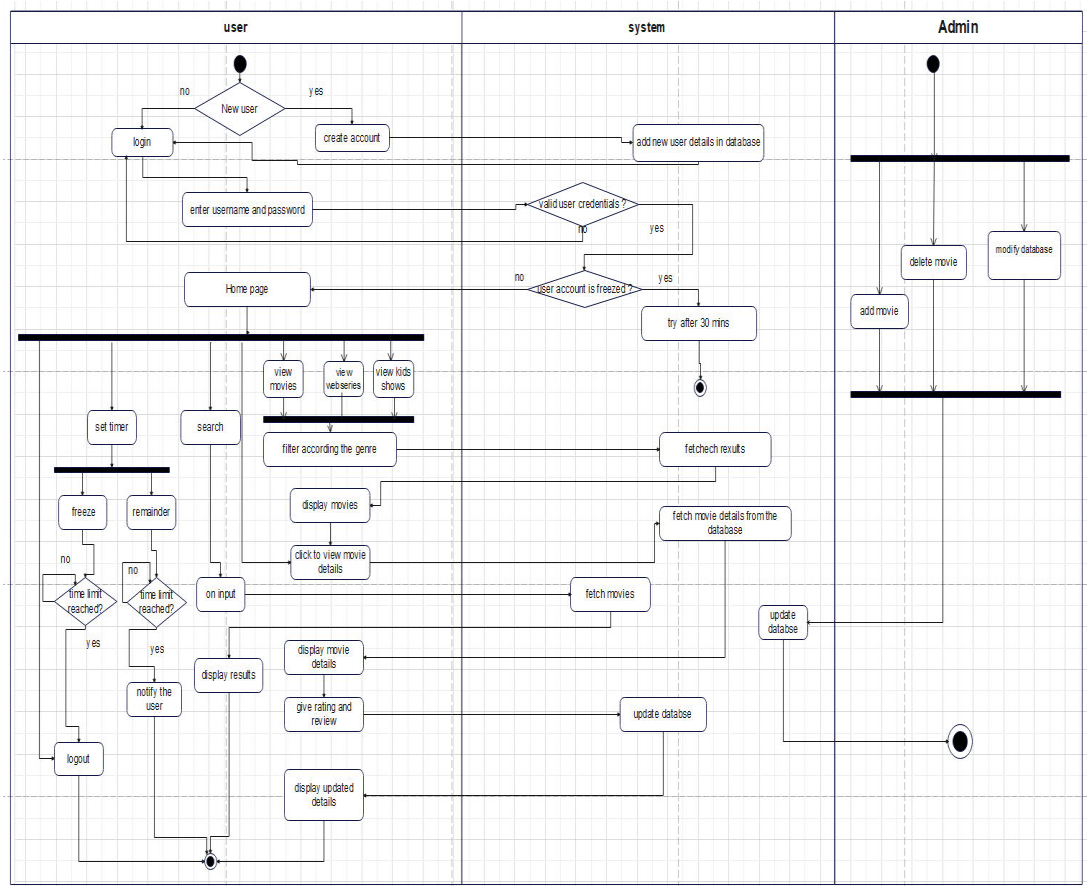


Figure 2. Flow diagram of the proposed application

International Journal for Innovative Engineering and Management Research
A Peer Revieved Open Access International Journal
www.ijiemr.org

Users can filter out the movies, web series and kids shows based on the genre which is implemented using PHP. To search content, the user can enter the title or the cast members in the search bar the results are fetched from the database and displayed to the user. This is done using JQuery and PHP. The details, user ratings and recent user reviews are displayed when the user clicks on the movie[15].When the user rates and reviews the movie, the average ratings are calculated and displayed to the user using JQuery and PHP, so that the user can compare the IMDB ratings and the average user rating to watch an movie[16]. Whenever the user sets the time to freeze the website after the completion of the time the user account is added in the database and logs out. If the user tries to login it will validate the user whether the user account is freezed and not allow the user to login for 30 mins.

Results and Discussions

Figure 3 shows the login page of the application. The new user can register to this web application by selecting thesignup option (refer Figure 3). New users have to enter the user details such as E- mail, password in their respective fields (refer Figure 4). Once the user clicks onthe on the submit button (refer Figure 4),
user's details will be stored in the database of the application. If the existing user wants to access the website content, the user has to login by entering user credentials like E-mail and password (refer Figure 3). If the user enters valid login credentials, he/she is redirected to the homepage of this web application as shown in Figure 5.

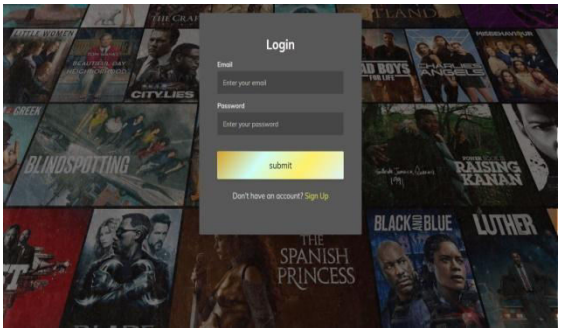


Figure 3. User login page

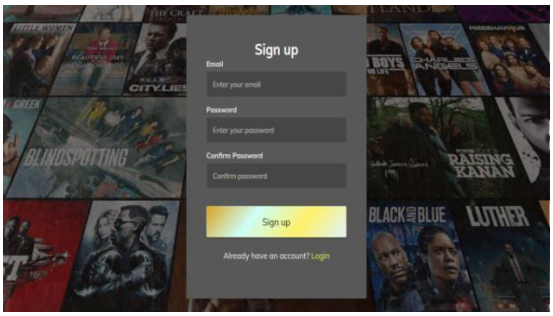


Figure 4. Signup Page

International Journal for Innovative Engineering and Management Research
A Peer Revieved Open Access International Journal
www.ijiemr.org

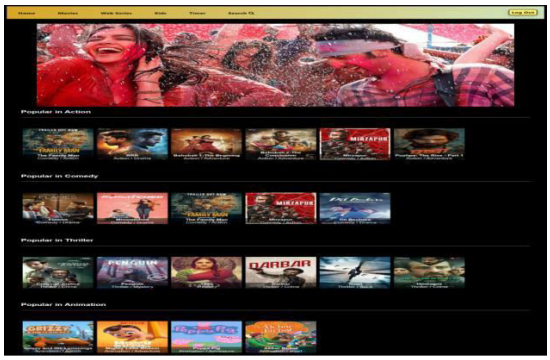


Figure 5. Home Page

The home page interface consists of on-demand digital content popular in action, comedy, thriller and animation (refer Figure 5). By clicking on any of the movie icons, the user is redirected to view the movie page (refer Figure 10). User can filter out content based on genre. By clicking on Movies / Web Series / Kids / Timer / search option on the navigation bar,the user is redirected to any one of the respective pages includes movies page (refer Figure 6), Web Series page (refer Figure 7), Kids page (refer Figure 8), Timer page (refer Figure 9), Search page (refer Figure 10).

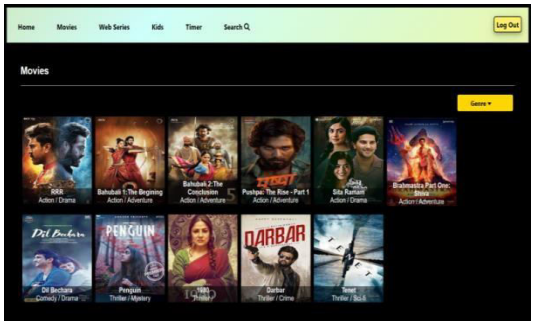


Figure 6. Movies Page

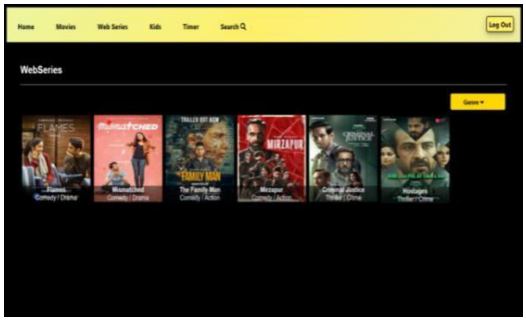


Figure 7. Web Series Page

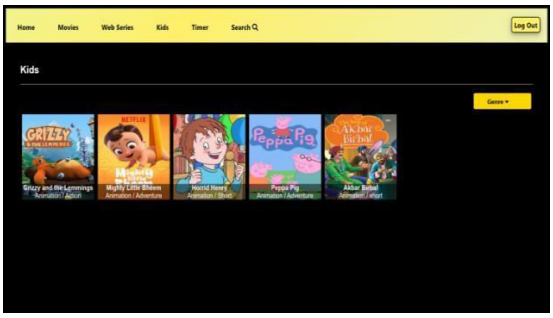


Figure 8. Kids Page

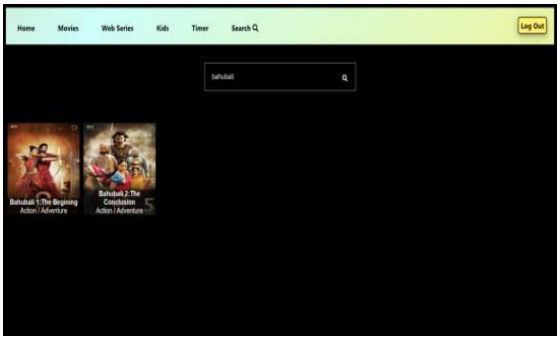


Figure 9. Search Page

The Figure 9 shows the search page of the application. The user can search the content based on the title and cast members and the results will be displayed accordingly. This application allows users and film fans to search a database of feature films using either entering by actor names or movie names.

International Journal for Innovative Engineering and Management Research
A Peer Revieved Open Access International Journal
www.ijiemr.org

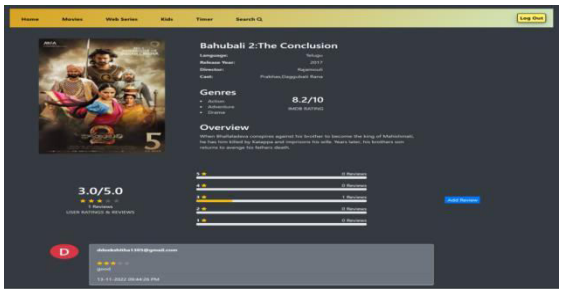


Figure 10. Movie view Page

The Figure 10 shows the movie view page of the application. The user on clicking any of the movie, details of the movie, official rating, average users rating are displayed. User can rate and give review by clicking on the add review button. By clicking add review button the page will redirect to the review page as shown in Figure 11.

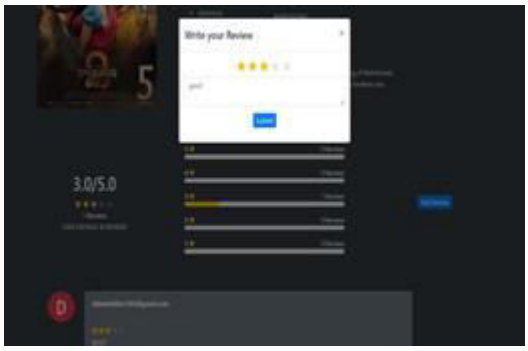


Figure 11. Review Page.

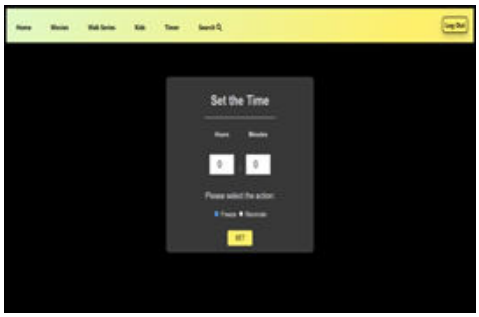


Figure 12. Timer Page.

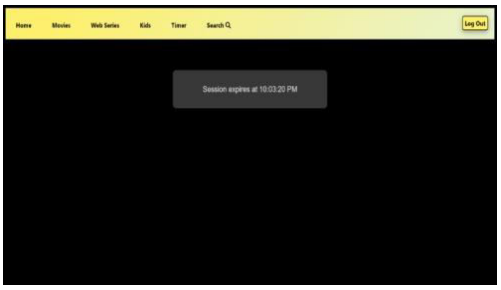


Figure 13. Freeze page.

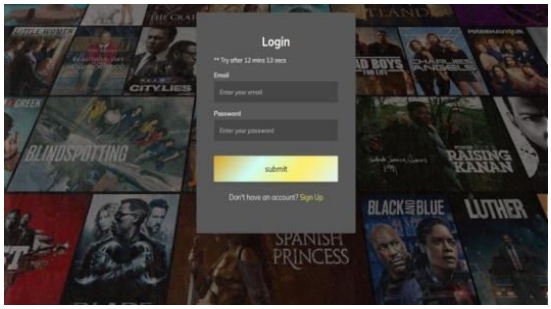


Figure 13. Log out after time is elapsed.

The Figure 12 shows the timer page of the application. The user can set the timer and choose freeze or reminder option. The parents can set the time for children for limited time and select the freeze option after setting the time. Then, after the time is up, the page will re-direct to freeze page as shown in Figure 13. Then the application automatically logout user from the account and not allows the user to login to application for next 30 min as shown in Figure14.

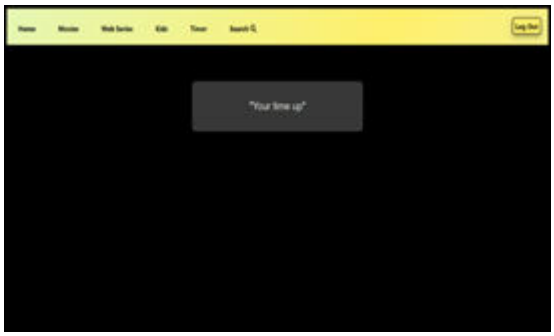


Figure 14. Notification Page

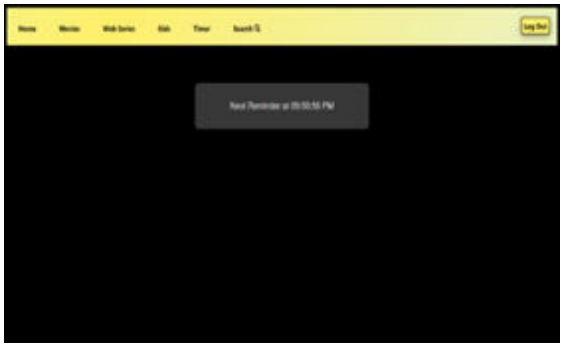


Figure 15. Remainder Page

From the timer page (refer Figure 12), the user can also choose remainder option and set the time it will re-direct to remainder page as shown in Figure 15. This will work when the user is in any page. After the time is up it will notify the user as shown in Figure 14.

Conclusion

In this paper, the proposed web application for digital content streaming services is more reliable. This application can be accessed from anywhere and anytime by connecting the device (mobile/laptop/tab, etc.,) to the internet. This proposed web application has upgraded user friendly features like movie rating and review system and parental control system compared to that of the existing digital content streaming applications. It ensures to provide data integrity and data confidentiality for the users data. As future enhancement, proposed application can be added with content-based recommendation. The freezing option in the application can be modified to calculate the time for freezing and remainder only when the user is actively using the website.

References

S. D and G. Maragatham, "Movie Rating System based on Blockchain," 2021 International Conference on Computer Communication and Informatics (ICCCI), 2021, pp. 1- 3, doi:10.1109/ICCCI50826.2021.9402381.

B. Mei, X. Cheng, X. Xing, B. Zhang and W. Cheng, "Personal Information Prediction Based on Movie Rating Data," 2016 International Conference on Identification, Information and Knowledge in the Internet of Things (IIKI), 2016, pp. 99-103, doi: 10.1109/IIKI.2016.84.

R. Gupta, N. Garg and A. Das, "A novel method to measure the reliability of the bollywood movie rating system," 2013 International Conference on Pattern Recognition, Informatics and Mobile Engineering, 2013, pp. 340-345, doi:10.1109/ICPRIME.2013.6496497

X. Chen and J. Zhang, "The Applications PHP, HTML and MYSQL in Development of Website – Query

Function," ICMLCA 2021; 2nd International Conference on Machine Learning and Computer Application, 2021, pp. 1-4.

David Clinton; Ben Piper, "Introduction to Cloud Computing and AWS," in AWS Certified Solutions Architect Study Guide: Associate SAA-C02 Exam , Wiley, 2021, pp.1-19.

G. McGrath, J. Short, S. Ennis, B. Judson and P. Brenner, "Cloud Event Programming Paradigms: Applications and Analysis," 2016 IEEE 9th International Conference on Cloud

R. Maata, R. L., Cordova, R., Sudramurthy, B., &Halibas, A. (2017).Design and Implementation of Client-Server Based Application Using Socket Programming in a Distributed Computing Environment. 2017 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC). doi:10.1109/iccic.2017.8524573

McGrath, G., Short, J., Ennis, S., Judson, B., & Brenner, P. (2016). Cloud Event Programming Paradigms: Applications and Analysis. 2016 IEEE9thInternational Conference on Cloud Computing (CLOUD). doi:10.1109/cloud.201 6.0060

G. McGrath, J. Short, S. Ennis, B. Judson and P. Brenner, "Cloud Event Programming Paradigms: Applications and Analysis," 2016 IEEE 9th International Conference on Cloud Computing (CLOUD), 2016, pp. 400-406, doi: 10.1109/CLOUD.2016.0060.

R. Maata, R. L., Cordova, R., Sudramurthy, B., &Halibas, A. (2017). Design and Implementation of Client-Server Based Application Using Socket Programming in a Distributed Computing Environment. 2017 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC). doi:10.1109/iccic.2017.8524573

L. M. Torres, E. Magaña, M. Izal and D. Morato, "A popularity-aware method for discovering server IP addresses related to websites," Global Information Infrastructure Symposium - GIIS 2013, 2013, pp. 1-8,
doi: 10.1109/GIIS.2013.6684350.

X. Yu and C. Yi, "Design and Implementation of the Website Based on PHP & MYSQL," 2010 International Conference on E- Product E-Service and E- Entertainment, 2010, pp. 1-4, doi: 10.1109/ICEEE.2010.5661595.

L. Biao, Z. Kejun, F. Huamin, Z. Kejun, F. Huamin and L. Yang, "A new approach of clustering malicious JavaScript," 2014 IEEE 5th International Conference on Software Engineering and Service Science, 2014, pp. 157-160, doi: 10.1109/ICSESS.2014.6933535.

X. Chen and J. Zhang, "The Applications PHP, HTML and MYSQL in Development of Website – Query Function," ICMLCA 2021; 2nd International Conference on Machine Learning and Computer Application, 2021, pp. 1-4.

K. Topal and G. Ozsoyoglu, "Movie review analysis: Emotion analysis of IMDb movie reviews," 2016 IEEE/ACMInternational Conference on Advances in Social Networks Analysis and Mining (ASONAM), 2016,pp.1170-1176,
doi:10.1109/ASONAM.2016.775238

S. Banerjee and A. Y. K. Chua, "Tracing the growth of IMDb reviewers in terms of rating, readability and usefulness,"2018 4th International Conference on Information Management (ICIM), 2018, pp. 57-61,
doi: 10.1109/INFOMAN.2018.839280 9.