DIGIT

Department of Computer Science & Enginering

Anantha Lakshmi Institute of Technology & Sciences

Volume 07 Jan-Jul 2022

Inside this issue:

VISION & MISSION

VISION : To produce technically competent computer science professionals with high quality education in cutting edge technologies and professional ethics.

MISSION :

M1: Impart quality technical education in design and implementation of IT applications through innovative teaching - learning practice.

M2: Provide state-of-art computing infrastructure to enable practical learning experience that foster problem solving and technical communication skills.

M3: Provide quality learning experiences through experiential learning for students and faculty to carry out multidisciplinary research projects with innovative ideas and professional ethics for sustainable development.

PROGRAM EDUCTIONAL OBJECTIVES

PEO 1 : **Demonstrate proficiency in fundamental concepts and advanced technologies of computer science in their careers and/or obtain a higher degree**

PEO 2 : **Analyze complex computing problems in multidisciplinary area and creatively solve them with analytical decision making and programming skills**

PEO 3 : **Recognize ethical dilemma in work environment and apply professional code of Ethics to excel as successful software professional, researcher and entrepreneur.**

PROGRAM SPECIFIC OUT COMES

PSO 1 : Apply the knowledge of programming languages, data structures, algorithms and standard software engineering principles to develop viable solutions for complex computing problems.

PSO 2 : Design and develop efficient Web and Mobile based applications under realistic constraints.

PSO3 : Apply theoretical principles of core and advanced computer science to solve engineering problems.

PROGRAM OUTCOMES

PO 1	**Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	**Problem Analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	**Design/Development of Solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4	**Conduct Investigations of Complex Problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	**Modern Tool Usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO 6	**The Engineer and Society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO 7	**Environment and Sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9	**Individual and Team Work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10	**Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11	**Project Management and Finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	**Life-long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

The Revolution of WEB 3.0

What is WEB 3.0:

Web 3.0 or Web3 is **the third generation of the World Wide Web**. Currently a work in progress, it is a vision of a decentralized and open Web with greater utility for its users. Web refers to the World Wide Web (WWW), the internet's core information retrieval system.
Web 3 has led to numerous innovations and a number of real-world problem-solving solutions. However, their true potential cannot be realised until the new technology is fully integrated into the web infrastructure.
Says Dileep Seinberg, founder and CEO of MuffinPay, a crypto fintech platform, "We are now entering the third era of the internet, also used in the tech buzzword web 3. This is primarily possible because of its decentralised nature, community-driven aspect, and data ownership by people instead of a few companies. It will combine four technologies: IoT (Internet of things), artificial intelligence/machine learning, data science and blockchain, and 5G telecom capabilities."

Advantages of WEB 3.0:

1.Controlover Data Ownership

Take a look around at all the online services and platforms you use on a daily basis. You enter your personal information on different platforms to obtain access to different services. You create content such as pictures or videos and share them online on Facebook and Instagram. Amidst all this, you must have assumed that your personal information in an Amazon account or the photos in your Facebook profile are secureand in your control.

2. Ubiquitous Access to Data

The interconnectivity aspect of web3 also serves as a vital foundation for a notable web 3.0 advantage. Web3 would largely involve the creation of an interconnected ecosystem that allows interoperability and seamless access to information. However, IoT connectivity would drive one of the top web3 benefits, i.e., ubiquitous access to data. Users can access any type of information from any location with any device. Web3 could ensure that you can connect to the internet even without using your computer or smartphone.

3. Freedom for Interactions

The biggest entry in a list of top web 3.0 advantages would focus on how it helps in ensuring seamless interactions among users. Web3 does not have any centralized authority controlling access of users as it builds up on the permissionless trait of blockchain. Public blockchain networks serving as the foundations of web3 applications could help in ensuring that anyone can access web3.

4. Advantages for Creators

The arrival of web3 has signaled a promising opportunity for all content creators. Most content creators struggle to get the actual value for their work, owing to the intermediaries in different channels for reaching their audience. The key web 3.0 advantages from the features of tokenization and creator economy could serve notable benefits for creators.

5. Better Security

The final and the most important entry among web3 advantages would refer to the assurance of better security. Blockchain could provide the assurance of decentralization and cryptography for ensuring safeguards for user data. The consensus mechanisms and basic design of blockchain make it impervious to common security breaches. While 51% of attacks are still one of the possibilities for hacking web3 applications and systems, the evolution of new security measures and best practices can solve the challenges.

Disadvantages of Web3.

1. To utilize Web3, users will require a device with above-average specs.
2. It could be a little difficult to grasp for newcomers.
3. Difficult to regulate: Some experts feel that decentralization will make monitoring and regulating Web3 more difficult.
4. Easy access to user's personal and public data: Because the Web3 is so large and linked, anybody may acquire access to the public and private information that you provide online.
5. Existing websites will require an update: As Web3-based websites and applications gain popularity, existing firms will be pressured to modernize.

Submitted By :
V N Vishnu Mahanthi
202G1A0560

5G-5th Generation Mobile Network

5G is a new kind of network:

A platform for innovations that will not only enhances today's mobile broadband services, but will also expand mobile networks to support a vast diversity of devices and services and connect new industries with improved performance, efficiency, and cost. 5G will redefine a broad range of industries with connected services from retail to education, transportation to entertainment, and everything in between. We see 5G as technology as transformative as the automobile and electricity.

In general, 5G use cases can be broadly categorized into three main types of connected services:

- **Enhanced Mobile Broadband**:

5G will not only make our smartphones better, but it will also usher in new immersive experiences, such as VR and AR, with faster, more uniform data rates, lower latency, and cost-per-bit.

- **Mission-Critical communications:**

5G will enable new services that can transform industries with ultra-reliable/available, low latency links—such as remote control of critical infrastructure, vehicles, and medical procedures.

- **Massive Internet of Things**: 5G will seamlessly connect a massive number of embedded sensors in virtually everything through the ability to scale down in data rates, power and mobility to provide extremely lean/low-cost solutions

A defining capability of 5G is also the design for forwarding compatibility—the ability to flexibly support future services that are unknown today. **Per IMT-2020 requirements**, 5G is expected to deliver peak data rates up to 20 Gbps. Qualcomm Technologies' first 5G NR modem, the Qualcomm® Snapdragon™ X50 5G modem, is designed to achieve up to 5 Gbps in a downlink peak data rate..

5G-5th Generation Mobile Network

Advantages of 5G Mobile Networks:

- High resolution and bi-directional large bandwidth shaping.
- Technology to gather all networks on one platform.
- More effective and efficient.
- Technology to facilitate subscriber supervision tools for the quick action.
- Most likely, will provide a huge broadcasting data (in Gigabit), which will support more than 60,000 connections.
- Easily manageable with the previous generations.
- Technological sound to support heterogeneous services (including private network).

Disadvantages Of 5G Mobile Network:

- Technology is still under process and research on its viability is going on.
- The speed, this technology is claiming seems difficult to achieve (in future, it might be) because of the incompetent technological support in most parts of the world
- Many of the old devices would not be competent to 5G, hence, all of them need to be replaced with new one — expensive deal.
- Developing infrastructure needs high cost.
- Security and privacy issue yet to be solved.

Submitted By :
M.Sumaiya Fathima
202G1A0536

Full Stack Web Development: Vision, Challenges and Future Scope

Full stack web development is the scenario of acting on each, the front-end and back-end of a program. It is a term largely used for those operating in web development. The developers have background on making program and user expertise for front-end, and even have robust information in an exceedingly programing language that's used for handling the logic of the appliance, therefore back-end.

Full stack could be a layer of software system or web development consisting of the front-end and also the back-end parts of associate application. Front-end is what the users can see or act with on your application. Back-end part is what users don't see, like application's logic, database, server, etc. A full-stack web developer is comfortable operating with each, back-end and front-end technologies that build a web site or application perform properly.

Full Stack Developers have the specified technical information of each and every facet of development – frontend, back end, working of various operating systems in accordance to the required environments of programming as well as tools for programming.

Full stack developers are also termed as “developer generalists”, as they will produce any complicated application from scratch, provided they have understood how each and every technical layer ought to act with the other. As Full stack web development refers to the both of each front-end and back-end of an online application, web application, the development method contains 3 layers, i.e., the logic layer (back-end layer), the presentation layer (front-end layer) and the information layer (database layer).

The major stacks of full stack web development that are commonly used to develop websites and applications are

- Linux Apache MySQL PHP (LAMP)
- Cross-Platform Apache MariaDB PHP (XAMPP)
- MongoDB Express Angular Node.js (MEAN)
- Windows Apache MySQL PHP (WAMP)
- Apache MySQL PHP PERL Softaculous (AMPPS)

LAMP stack stands for **Linux** operating system**, Apache** server**, My SQL** Query Language**, and PHP** server-side scripting language**.** All of these are open-source tools which are free to use, and has contributed in creating many of the developments. The lamp stack comes as the very common stack in deploying websites and applications, to the internet.

XAMPP is an acronym for **Cross-platform(X), Apache(A), MariaDB, And PHP** server-side **or Perl(P)** backend language**.** XAMPP is the best distribution in the industry that helps developers use local web server for deploying and testing web programs. It is being designed to simply deploy and run the web applications on the web server.

Full Stack Web Development: Vision, Challenges and Future Scope

MEAN is commonly used open-source stack that is used to build the production ready web applications. This stack indicates four things which are MongoDB

NoSQL database, Express framework, Angular development platform, and Node.js execution environment. **MongoDB** is the database having NoSQL, and **Express** is most common framework that helps to create the applications like Todo Lists used in everyday life. **Angular** is the JavaScript client-side platform used to make client-side web applications, and **Node.js** is the execution environment, used worldwide to create the on-site and of-site web applications and websites.

Refer to the Fig 1. that explain the Data Flow in Mean Stack.

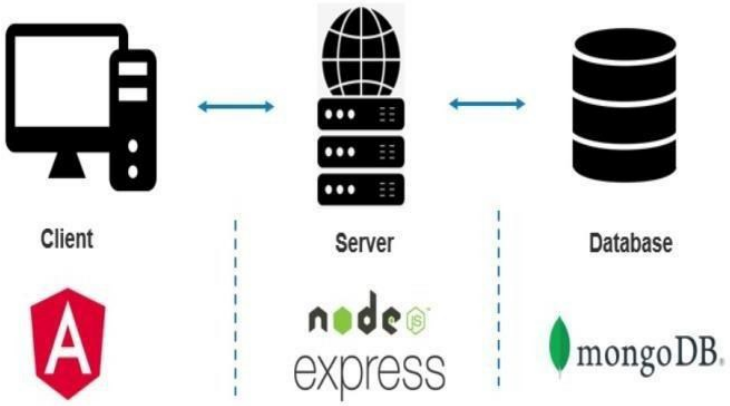


Fig 1. Data Flow Diagram (DFD) -MEAN Stack

WAMP stack stands for **Windows** operating system,

Apache, **MySQL**, **PHP**. WAMP works same as LAMP; the difference is of operating system. The stack is commonly used for hosting web-applications and webpages from little to medium sized sites. WAMP is quite popular among windows users as it provides flexibility and scalability for the servers.

AMPPS stack stands for **Apache MySQL (MongoDB) PHP (PERL or PYTHON) Softaculous (software stack).** AMPSS combines three different stacks i.e., LAMP(Linux), WAMP(Windows), MAMP(Macintosh). It has preinstalled open source libraries and dependencies which helps to code the website or application in efficient way and proficiently helps the development process.

Submitted By :
R Jaswanth Reddy
202G1A0545

CYBER SECURITY

An effective cybersecurity method has numerous layers of defence spread across the networks, computers, programs, or informations that one aims to keep non-toxic. In a society, the processes, the people and tools must all accompaniment one alternative to generate a real defence on or after cyber-attacks. A unified threat management system can mechanise additions across select Cisco Security goods and speed up key security processes functions: discovery, examination, and remediation.

People :

Consumers must appreciate and obey with basic informations security ethics like selecting

strong passwords, actuality wary of accessories in email, and back-up up data. Learn extra around basic cybersecurity values.

Processes :

Governments must have an outline for how they contract with together attempted and popular cyber attacks. Some well-respected outline can escort you. It clarifies how you can recognise bouts, protect organisations, notice and reply to threats, and improve from successful occurrences

Technology :

Technology is vital to giving individuals and organizations the system security tools wanted to protect themselves as of cyber attacks. Three chief objects essential be threatened: endpoint strategies like PCs, handheld devices, and routers; systems; and the cloud. Shared technology cast-off to defend these objects contain next-generation firewalls, DNS pass through a filter, malware defence, antivirus tools, and email safety results.

Cyber might be distinct as somewhat connected to the collection of workstations or the network. At the same time, security means the mechanism of protecting anything. Consequently the terms Cyber and safety took organized define the way of defensive user informations on or after the spiteful attacks that might clue to the security break.

CYBER SECURITY

It is the time that has been cast-off for a period back afterward the internet happening developing like whatever. By asset of Cybersecurity, any society or any user can protected their critical data from hackers. However it is apprehensive with hacking at around point, it in fact used ethical hacking to contrivance Cybersecurity in any structure.

Definition

It could be defined as the procedure to ease the security fears in order to protect repute damage, commercial loss or financial loss of all group. The term Cybersecurity obviously required that it's a gentle of security that we proposal to the organisation that frequent users can contact using the internet or over a network. There are numerous tackles and techniques that are castoff to deploy it. The greatest significant fact around safeguarding informations is that it's not a one interval procedure but a non-stop process. The organisation proprietor has to keep stuffs modernised in mandate to keep the hazard low.

How does Cyber Security make working so easy?

No hesitation that the tool of Cybersecurity makes our work very easy by ensuring the obtainability of the capitals limited in any network. A commercial or society could look a huge damage if they are not honest about the safety of their online occurrence. In today's linked world, everyone aids from progressive cyber defence agendas. At a

separate level, a cybersecurity outbreak can result in entirety from individuality theft, to blackmail attempts, to the damage of vital data similar family photographs. Everybody relies on dangerous structure like influence plants, infirmaries, and monetary service businesses. Securing these and other societies is essential to trust our civilization

operative. One and all also remunerations from the work of cyberthreat investigators, similar the team of 250 risk investigators at Talos, whoever explore new and developing fears and cyber bout policies. They disclose new susceptibilities, teach the community on the position of cybersecurity, and toughen open source gears. Their work marks the Internet harmless for one and all.

CYBER SECURITY

Types of Cyber Security

Phishing

Phishing is the rehearsal of distribution fake communications that look like emails from dependable sources. The goal is to bargain thoughtful data comparable to credit card details and login data. It's the greatest kind of cyber attack. You can help defend manually over learning or an expertise solution that sieves malicious electronic mail.

Ransomware

It is a type of malicious software. It is considered to extract currency by blocking contact to records or the PC system until the deal is paid. Paying the ransom does not assurance that the records will be recuperated or the system returned.

Malware

It is a type of software intended to gain illegal right to use or to cause impairment to a system.

Social engineering

It is a tactic that opponents use to pretend you into illuminating delicate information. They can importune a monetarist payment or improvement access to your reserved informations. Social engineering can be collective with some of the pressures registered above to style you additional probable to connect on links, transfer malware, or belief a malicious cause.

Submitted By :
U Pravallika
202G1A05B6

Augmented Reality and Virtual Reality in Education.Myth or Reality?

Augmented reality and virtual reality are not really new technologies. The first virtual reality headset was created at the University of Utah in the 1970s by Daniel Vickers. With two screens, the headset gives the user the opportunity to observe the virtual scene presented to him by turning his head. A few years later, a new interface is developed: the data glove (DataGlove). This device, created in 1982, measures the movement of the hand and fingers and communicates it to the computer (Fuchs, 2006).

And, the term "Virtual Reality" was proposed in the United States in the 1980s by Jaron Lanier [1]. As for the term “augmented reality”, it was coined by researcher Thomas Caudell and David Mizell in 1990 to describe how the head-mounted displays that electricians used when assembling complicated wiring harnesses worked. The last technological craze of AR and VR was in the 1990s. But, at that time, many constraints prevented these technologies from being actually adopted by the general public.

In this work, we will argument in favor of a real advance of AR and VR and explain why they finally can be adopted in all domains, including education. We will explore the evolution of some technologies that are used in AR. Hence, we will try to verify whether AR and VR are a reality and their adoption in education is finally possible or are they still a myth.

Objective

Explain why AR and VR can finally be seriously integrated into teaching and learning and demonstrate how much their promises are high.

Questions

There are 2 important questions behind this work:• What makes AR and VR a reality no longer just a myth?

Why are AR and VR a real new enhancement of teaching and learning?

Research Method

Comparison of some technologies used during the 1990s and their current counter-

Augmented Reality and Virtual Reality in Education.Myth or Reality?

Results

The nature of AR and VR and their recent enhancement thanks to various technological advancements allows a new type of learning that better meets the needs of the 21st century learner who wants entertainment, interactivity, participation and manipulation of objects. However, an effective adaption of AR and VR in education and learning will not happen until some technical and social issues are resolved and education programs are more adapted so as to take full advantage of the potential of these technologies.

Submitted By :
P Likith Sai
192G1A0597

Blockchain and the Future of the Internet

The paradigm shift entailed by blockchain's premise of decentralization envisages an eventual migration from the endto-end principle to trust-to-trust principle [1]. According to this new design principle, a user should ideally always have complete control over the trust decisions particularly pertaining to user's data that powers a network application such as an online social network. This decentralization aspect forms the basis of the blockchain-based networks. This further paves the path for an era of distributed trust and consensus. This implies that large networks, in a peer-to-peer configuration, will guarantee the integrity of transactions (simply put interactions) among their peers without the involvement of any centrally trusted mediating third party. The provision of verifiable trust guarantees further entails that such networks can be audited in a trusted and transparent manner. This audit ability is useful to enforce the networked systems accountability over malfunctioning or an activity of foul play. Moreover, any application that requires interactions among various stakeholders for its

operations in a mutually non-trusting environment (where the stakeholders do not have to or do not want to trust one another) can benefit from blockchain as it creates transparency and trust in interactions among the stakeholders without involving any third party. That is the reason why industries such as transport, energy sector, insurance, finance, and logistics have started to show their interest in blockchain technology to automate their solutions [2]–[5].

It can be observed that although the onset of the Internet revolution heightened the societal collaboration among people, communities, and businesses [6] many of the Internet applications, however, such as email and Domain Name Systems (DNS), largely remain centralized as far as their management and core development are concerned. The centralized governing bodies are usually behind the trust guarantees associated with such online applications. Similarly, the issue of trust in cloud-hosted data storage is another contemporary challenge predicated on the inherent centralized nature of the Internet [1]. The clients of such online and cloud-based services, such as cloud storage and computation, usually put their trust in the claims put forward by the third party cloud providers. It raises the pressing need for verifiability that the cloud is not tampering with a client's stored data and is always returning correct results in response to the requested computation. A single instance of a data breach in cloud storage or a faulty execution of a requested set of computations can lead to disastrous ramifications for such a business. As it has been seen in a famous data breach that calls the trust in central

management of online services such as Facebook (an onlin e social network) into question [7]. Blockchain, on the other hand, with its premise of immutability, transparency, and peerto- peer consensus can provide the means for a trusted audit of networked systems while at the same time giving much of the control back to the edges of a network.

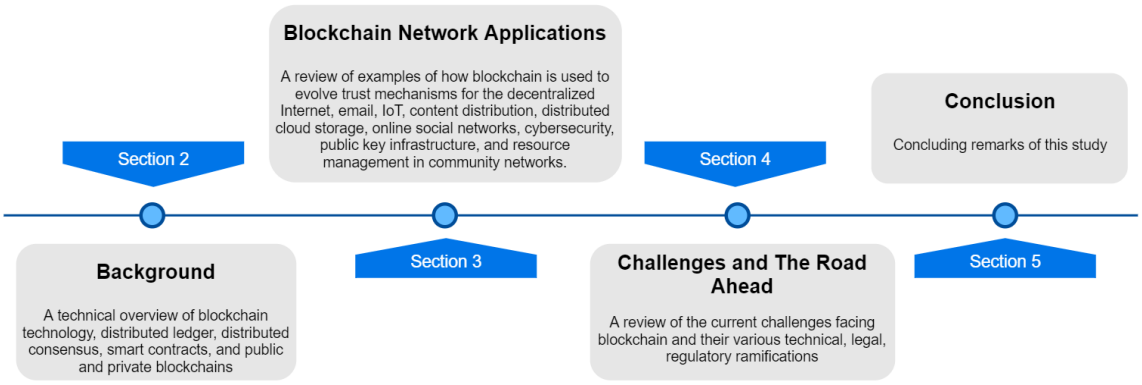
Blockchain and the Future of the Internet

Contribution of the survey

In this paper we provide a broad ranging survey of the implications of blockchain on the future of the Internet with a comprehensive take on their legal and regulatory ramifi cationsas well. Instead of limiting ourselves to one particular use case we cover a wide range of use cases and try to observe the common patterns, differences, and technical limitations so that a more informed decision can be made by someone interested in deploying a use case from ground up or translating one's use case to a blockchain-based solution. We provide a comparison of our paper with other recent blockchain-based surveys in Table I. Apart from encompassing most of the issues covered by recent survey literature, a clear distinguishing feature of this paper is that we also discuss a few of the most important legal and regulatory challenges and ramifications of deploying a blockchain-based solution. This is particularly important given the development of new data protection regulations (such as the advent of the General Data Protection Regulation (GDPR) in Europe), and regular reports of data breaches and government mass surveillance stories coming to light.

Blockchain and distributed ledger technology (DLT)

The original premise of blockchain is to establish trust in a peer-to-peer (P2P) network circumventing the need for any sort of third managing parties. As an example, Bitcoin introduced a P2P monetary value transfer system where no bank or any other financial institution is required to make a value-transfer transaction with anyone else on Bitcoin's blockchain network. Such a trust is in the form of verifiable mathematical evidence (more details on it follow in Section II-D). The provision of this trust mechanism allows peers of a P2P network to transact with each other without necessarily trusting one another. Sometimes this is referred to as the trustless property of blockchain. This trustlessness further implies that a party interested in transacting with another entity on blockchain does not necessarily have to know the real identity of it.



Blockchain and the Future of the Internet

This enables users of a public blockchain system (see Section II-F for more details on public and private blockchains), such as Bitcoin, to remain anonymous. Further, a record of transactions among the peers are stored in a chain of a series of a data structure called blocks, hence the name blockchain. Each peer of a blockchain network maintains a copy of this record. Additionally, a consensus, taking into consideration the majority of the network peers, is also established on the state of the blockchain that all the peers of the network store. That is why, at times, blockchain is also referred to as the distributed ledger technology (DLT). Each instance of such a DLT, stored at each peer of the network, gets updated at the same time with no provision for retroactive mutations in the records.

Submitted By :
C Shanthi
192G1A0569

EMOTION BASED SONG RECOMMENDER SYSTEM

Technology has a great impact on every part of lives, which also includes our day-to-day habits. In present scenario, fields like artificial intelligence and machine learning are on great boom. With the help of advancement in these fields, large number of people are interacting through the system via chat bots and voice assistants. Considering above factors, this project is aimed to implement the Machine Learning based Chat Bot Song Recommender System that includes chat bot to assist user and recommend songs using the Natural Language Processing. In this paper we will discuss methodology, algorithms and the flow of the system.

Keywords:

Interactive Chat Bot, Interactive System User Interface, Recommender System, MYSQL Server, Natural Language Processing, Sentimental Analysis.

INTRODUCTION:

Now-a-days, we all are living in the time where we knowthat nothing is certain. Same goes with our mind, at regular instances of time our mood, our choices and our priorities changes. Considering the constant changing behavior of human being we have developed our system. We have made our system considering that the humans experience frequently changes in their mood and somehow, at particular moment of time, frequently changing of mood would also result in change in mood of music of their choice. Hence, with the help of our system you can listen music according to your mood. In addition, we have also provided the facility to user to chat with the chat bot after all texting makes conversation between chat bot and user more interactive and it will efficiently help in analyzing the current mood of the user and based on that chat bot will recommend songs. Besides these, our system comprises of four modules. Initially for a new user we have provided a sign-up page. After completing sign-up , user can login to our system. In addition to our system, we've also provided the password recovery facility to user, in case user forgot the password. After chatting with the chat bot, current mood concept of NLP (Natural Language Processing). Based on the list of songs user can choose the song to be played based on his or her choice. We have used Python as our prime language because it supports an extensive set of open-source libraries which can be used by our system.

PROBLEM STATEMENT:

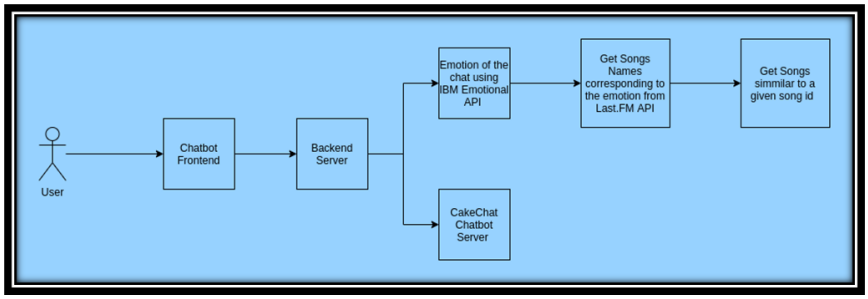
Nowadays, people are feeling more stress regarding on their works/jobs .So, this project is an idea of emotion based system for relaxing from stress.

EMOTION BASED SONG RECOMMENDER SYSTEM

METHODOLOGY:

The proposed system work develops a personalized system, where the user's current emotion is analyzed with the help of the chat bot. The chat bot identifies the user's sentiment by chat conversation with the user. Based on the input provided by the user, current emotion or mood is analyzed by the chat bot and it will suggest song to the user. The objective of our application is to identify the mood expressed by the user and once the mood is identified, songs are played by the application. The application solves the basic needs of music listeners without troubling them as existing applications do.

Block Diagram



ALGORITHMS:

·Natural Language Processing:

Natural language processing (NLP) Sentiment analysis (or opinion mining) is a natural language processing (NLP) technique used to determine whether data is positive, negative or neutral. Sentiment analysis is often performed on textual data to help businesses monitor brand and product sentiment in customer feedback, and understand customer needs. Sentiment Analysis is a procedure used to determine if a chunk of text is positive, negative or neutral. In text analytics, natural language processing (NLP) and machine learning (ML) techniques are combined to assign sentiment scores to the topics, categories or entities within a phrase.

Submitted By
B. Bhavana
212G5A0502
K. Jyoshna
202G1A0529

Anantha Lakshmi

Institute of Technology & Sciences

Address :
Near SK University,
Itukulapalli V),
Anantapur Dist. A.P. India-515721

Phone : 8328579395
8801110569

Email Id : alts.cse.hod@gmail.com

ABOUT THE DEPARTMENT

Computer Science and Engineering is at the core of the information age. To prepare our students for the tremendous opportunities in the field, the CSE Department is strongly committed to excellence in both education and research. Our majors are designed to provide a strong foundation in the core areas of Computer Science and Engineering.

Our majors are designed to provide a strong foundation in the core areas of Computer Science and Engineering. Our vibrant graduate programs prepare students for positions in industry and academia. Since its inception, the department has always been recognized for excellence in teaching. The Department provides an outstanding teaching environment complemented by superior teaching for its students to flourish in. Graduates from the department are recruited by both academia and industry.

The Department of Computer Science and Engineering with its cohesive team of faculty members offers a sound program at the UG as well as the PG levels. The curriculum is a blend of the conventional and the radical. It is updated regularly to keep up with the growing demands and the changing trends of the software industry and research laboratories.

College Code : ALTS

"