# ITERATE

*IT Department Magazine*

## 2021-22

# CONTENT

Sk Saifuddin
2nd year, IT
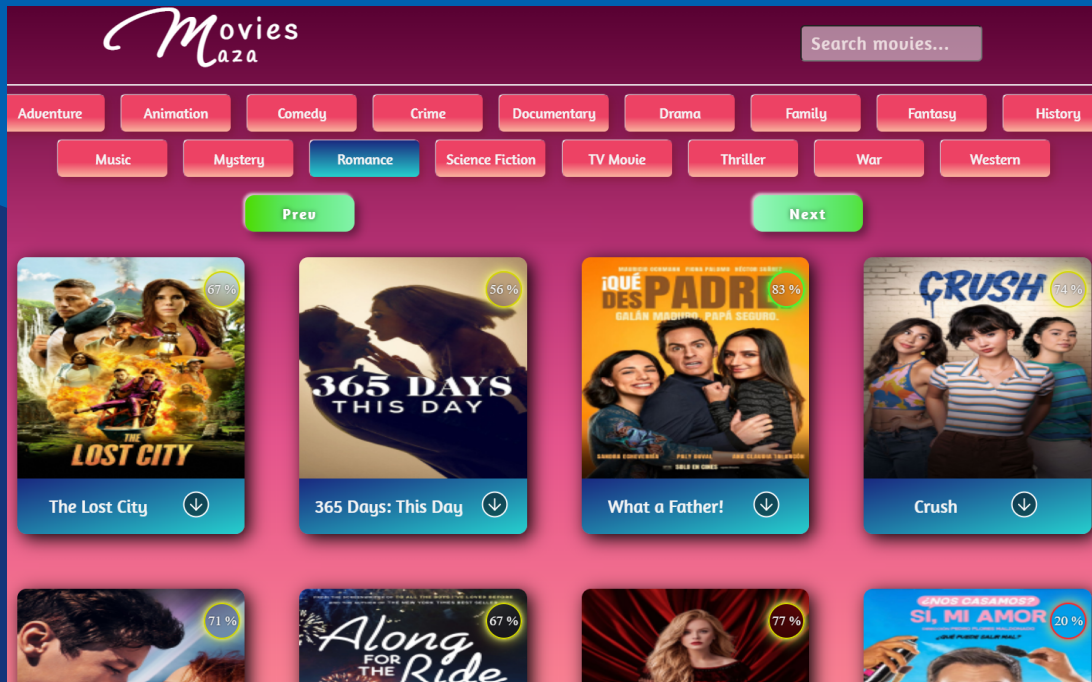
# MOVIES MAZA



**Movies Maza** is a simple movie finder easy to use app to all movie lovers. we all need something where we can find our favorite genre movies ,shows details such as overview, genre, release date, rating, runtime, top cast, reviews, recommended movies, etc. This app will fulfill all those criteria with good user experience.

This app is based on a external API from where we all get those datas. Also we can request any movie and also will get download references of that movie. This is complete React project with css bootstrap .

some exciting features:
1.Search by manually
2. Genre wise recommended movies
3. Full overview and percentage of people shows interest on that particular movie
4. Download references
5. Popular and top rated movies.
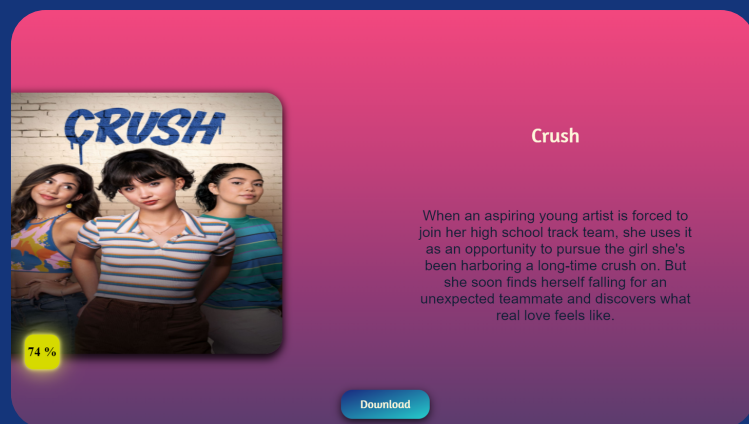


# A MOVIE FINDER AND RECOMMENDER

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*Prapti Mukherjee*
*1st year, IT*
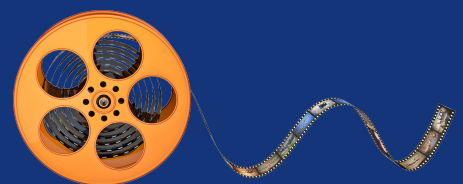
Generation Z holds the future in its hands also the ultimate benefit of illimitable learning with VR. This new tech's power is illimitable, engendering a plenarily three-dimensional world alluring individuals to experience the infeasible also improving mental health.

However, is the revelation to Metaverse truly a blessing for us?

Due to this recent pandemic situation, leaving us no choice but to use technology, we are being called the Self-Starters, more inclined to acknowledge and learn about the benefits of VR. But, at what cost? Our childhood? Detachment? Or for education leading to a new era breakthrough?

# GEN Z AND VR

*Tanaya Biswas*

# HEART DISEASE PREDICTION

Heart diseases is a term covering any disorder of the heart. Heart diseases have become a major concern to deal with as studies show that the number of deaths due to heart diseases have increased significantly over the past few decades in India, in fact it has become the leading cause of death in India.
A study shows that from 1990 to 2016 the death rate due to heart diseases have increased around 34 per cent from 155.7 to 209.1 deaths per one lakh population in India.

Thus preventing Heart diseases has become more than necessary. Good data-driven systems for predicting heart diseases can improve the entire research and prevention process, making sure that more people can live healthy lives. This is where Machine Learning comes into play. Machine Learning helps in predicting the Heart diseases, and the predictions made are quite accurate.

Problem Description :
A dataset is formed by taking into consideration some of the information of 920 individuals. The problem is : based on the given information about each individual we have to calculate that whether that individual will suffer from heart disease.
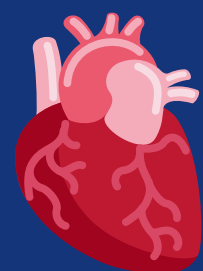
Technologies Used : -
1. Python 3.7
2. Pandas
3. Numpy
4. Flask

Models used and accuracy :
A Random forest classifier achieves an average multi-class classification accuracy of 56-60% (183 test samples). It gets 75-80% average binary classification accuracy(heart disease or no heart disease).

# USING
# MACHINE LEARNING

3

Souvik Roy
2nd year, IT

What are CRUD operations?

CRUD stands for Create Read Use Delete. This term is now pretty self-explanatory when expanded from its abbreviated form. Currently this is a household name for any developer who is willing to begin his career towards full stack web development. Creating a file, editing and deleting it and using a dynamic database for the records is what you need to upscale your role from a mere front end developer to a full stack freelancer (As a full stack developer is likely to get more orders than others). However when it comes to using pre-determined frameworks in python like Stream lit is never really considered for CRUD operations and is actually stereotyped as a way for developing Data Based apps and not for developing a CRUD application. Therefore, using it as one such tool can actually add more diversity to your project as you can create Data Apps with CRUD support. Let us see how.
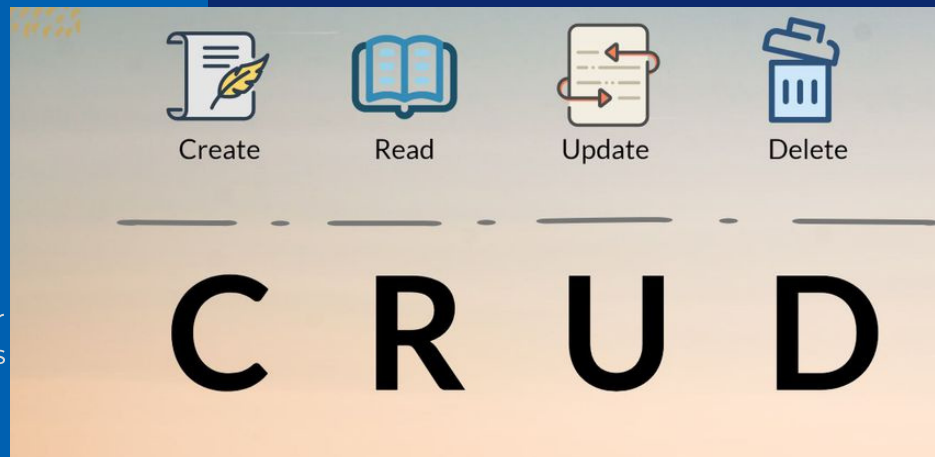


What is Stream lit?
*"Stream lit turns data scripts into shareable web apps in minutes.*
*All in pure Python"*
This is the basic tagline you get to see in the official documentation page and this is quite precise and to the point description for a typically popular framework that used the most comprehensive programming language (Python) as backend.
Stream lit is a data visualization milestone and the way it has simplified things for data visualization is worth commendable.
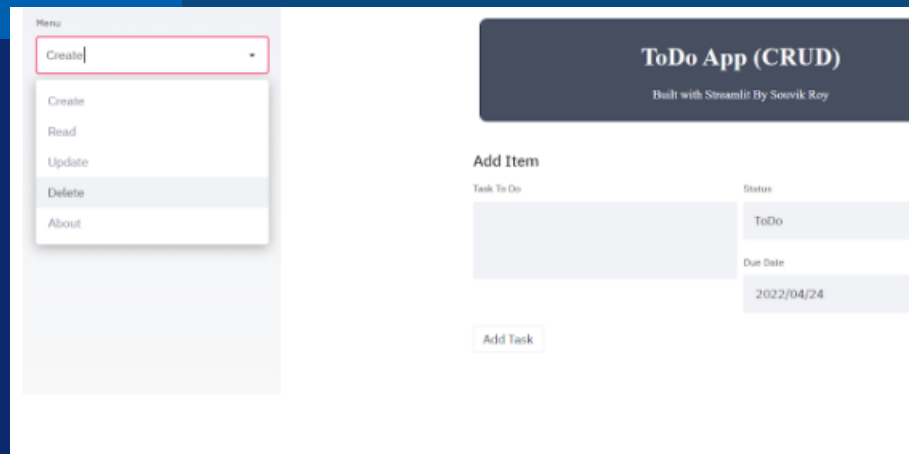


Requirements for the project :
plotly==4.8.0
pandas==1.1.3
streamlit==0.68.0

In case you want to host this as a working website you'll need :
1. SetUp.sh
2. procfile

The entire setup is available in the github account link provided by me. Have a look and in case you have created an advanced version of something like this then make sure to tag me.

# CRUD OPERATIONS USING STREAMLIT

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# INNOVATION AND TECHNOLOGY

Suman Basu
Staff member, IT
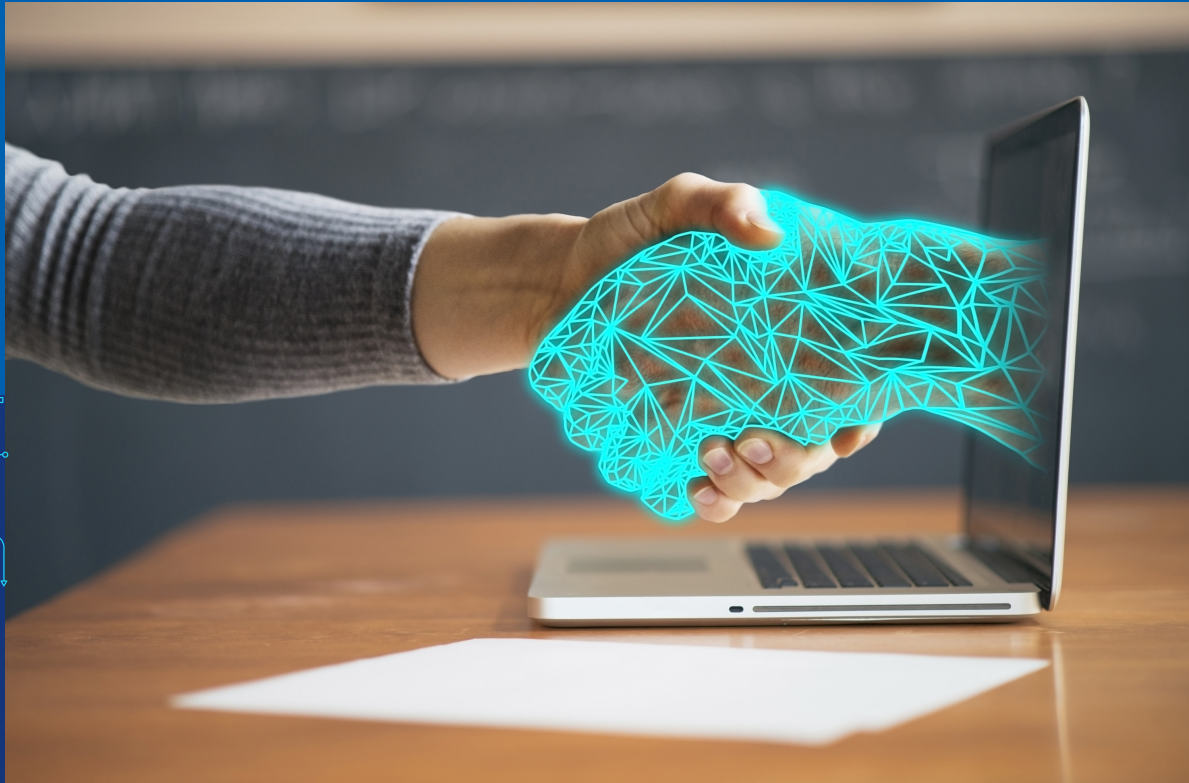
**Modern Technology** is ever changing. Students should grow and be accustomed with modern technology and they should be prepared for it from student life. Basic concept of science must be very clear. Besides theory-based studies, one should be nurturing innovative ideas which they can show in their science projects. Teachers should inspire students for making these innovative projects. They should keep track of how technology changes rapidly in the ever-evolving world. In my own personal experience, I came across some students of class.

Modern Technology is mostly implemented in AI, Machine Learning, Cloud Computing, IOT, Robotics etc. Nowadays, companies focus on automation (Industry 4.0 solution) which is almost mandatory in order to be competitive in the global markets. Productivity improvement of up to 100% with 25% less space. Production and marketing policy both are changing rapidly. In 2014 only 15% of mobiles were manufactured in India and now it is 96% in our country. The same is now happening in other areas. Traditional system or concept changes rapidly. When we think about chips, we think about hardware.

Another challenging issue is eco- friendly or green technology where the goal is production of minimum energy and maximum mobility. The govt. has got several responses to its "India Plastic Challenge- Hackathon 2021" and has selected innovators like M/s zero circle. You have to know modern technology to design a system for maximum throughput and prepare yourself as per basis. Government projects like SKILL INDIA, START UP INDIA, and MAKE IN INDIA etc. may be helpful for students and more students can join in events like HACKATHON to enhance their skill and also create more entrepreneur Productivity .

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# NOTES

**Note Likho** is an app where we can save all our quick notes, short write up, any article links or anything. Sometimes we got many things in our mind but due to not saving that we lost that.

This app work on CRUD (create, Read, Update, Delete ) process and have the backend support so that you not gonna loose your notes, important write up

Technology used :
1. React js
2. Node js
3. Express js
4. Mongo db

so , basically this project is basically a perfect example of MERN stack project
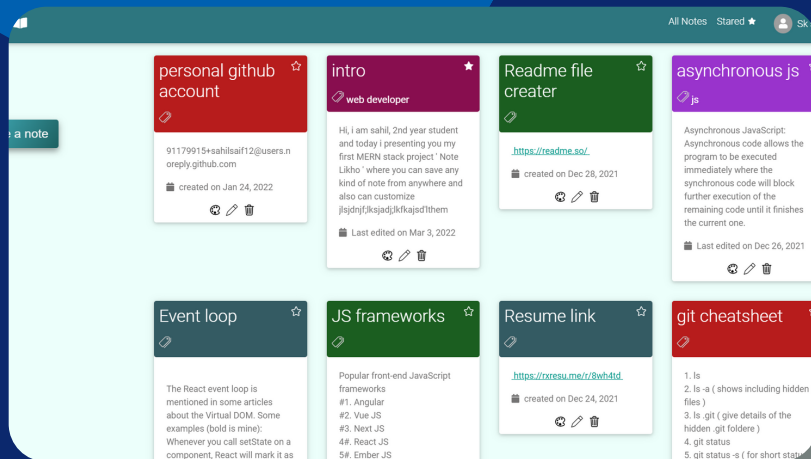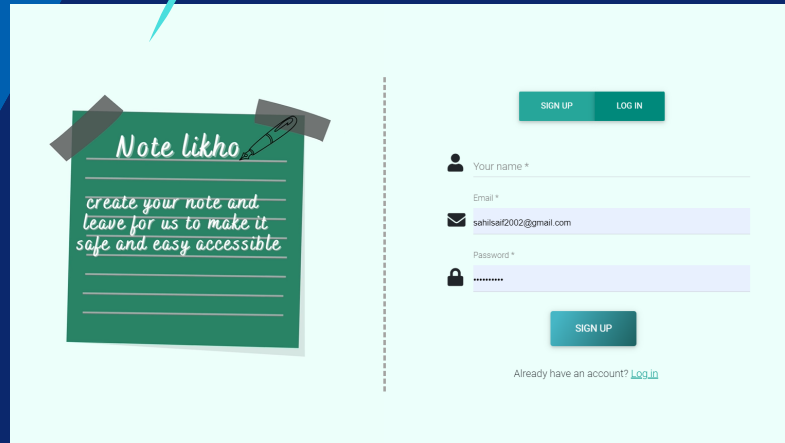
⇢ Easy to edit or delete a note.
⇢ Can mark star to those important notes which you gonna get all important ones in started notes section
⇢ Can change the color of the note boxes to priorities
the content
⇢ Save them and log out and come after days, month, years, your write ups gonna stay there .

# NOTE LIKHO

Nayaab Khan
2nd year, IT
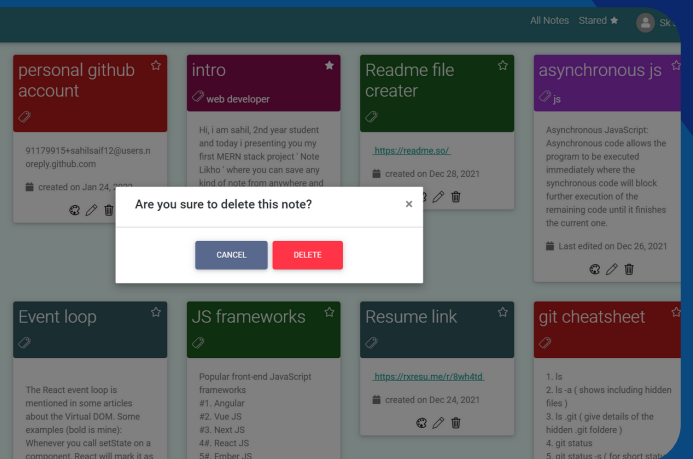
# BLOCKCHAIN AS A SERVICE

What is Blockchain?
Blockchain is one of the fastest-growing IT technologies. It has extensive real-world uses, but industries are still struggling to leverage the true potential of Blockchain solutions. Now, the question is, can you use Blockchain-as-a-service (Baas) as a potentially workable solution?
Do you know: 44 % of enterprises are widely using Blockchain across the world? Do you know: Blockchain is one of the most secure online transactions that have impacted all the industries, and soon it will be a core part of the numerous sectors of different niches.

What Is Blockchain-as-a-Service (BaaS)?
We heard a lot about SaaS but we have BaaS also. BaaS is a new evolution in the blockchain technology field. It is the third-party creation & management of cloud-based networks. BaaS is primarily to design & develop Blockchain apps. It is not just for cryptocurrency; it is witness to all types of transactions. It is a significant development and an essential milestone for enterprises. BaaS allows businesses of all types and sizes to access blockchain technologies at zero in-house development cost. The BaaS model allows enterprises to retrieve blockchain providers' services to develop the blockchain apps at a minimal cost.
As per Fortune Business Insights report, the global blockchain-as-a-Service market size will reach USD 24.94 Billion by 2027, exhibiting a CAGR of 39.5% during the forecast 2020-2027.

1. Increased Data Security
2. Low-Cost Access
3. Anywhere Access
4. Higher Compatibility
5. Better Software
6. Massive Scalability

Is there is any Limitations?
Yes, the only limitation in the Baas model is that it demands a certain amount of centralization. Why? Because you need to funnel transactions through the blockchain services of the host. Therefore, companies need to rethink whether they should adopt or not.
Final Words: At present, Blockchain-as-a-Service is a unique way to streamline the digital transformation process. It can help your business take a competitive advantage without investing in research, planning, and infrastructure. So, what are you waiting for?

Amit Khan
Assistant professor, IT

Sentiment Analysis (SA) is the process of analyzing text to find out the inherent tone present within the text. It is also called opinion mining. SA is a popular and familiar technique of text mining. It uses different methods to analyze customer feedback regarding how customers are thinking to their products and services. Generally nowadays every business firm collects lots of customer comments through online media. But it is really hard to analyze this huge volume of data manually. Sentiment analysis bridge this gap by automatically analyzing a huge volume of data to get the overall underline tone within the data.

Sentiments refer to human stance, opinions, and emotions, which are qualitative objects. SA uses Natural Language Processing (NLP) to analyze the text to find out the undertone present within it. Different types of SA use different methods to identify the undertone of a text. Sentiment Analysis can be classified in two broad categories – subjective or objective identification and feature based or aspect-based sentiment analysis. Subjectivity or objectivity identification entails classifying a sentence or a fragment of text into one of two categories: subjective or objectivity. However, it should be noted that there are challenges when it comes to conducting this type of analysis. The primary challenge is that the meaning of the word or even a phrase is often dependant on on its context. Whereas, feature/aspect identification allows for the determination of different opinions or sentiments (features) in relation to different aspects of an entity. Unlike subjectivity/objectivity identification, feature/aspect based identification allows for a much more nuanced overview of opinions and feelings.



NEGATIVE     NEUTRAL     POSITIVE
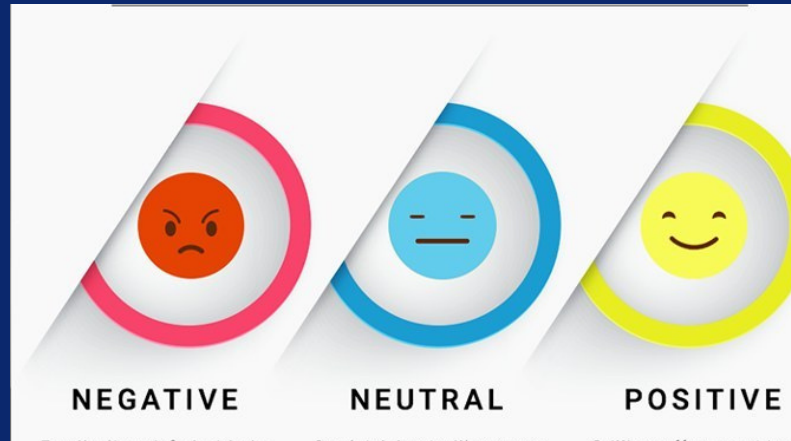
1. Sentiment Analysis Challenges in Business Context

Any newborn technology should be harnessed properly to effectively utilize and enjoy its benefit.It can be highly deceiving if organizations are not well-equipped to take advantage of emerging technologies. Some challenges in leveraging SA are as follows.

The principal ground of SA is the utilization of big data. Businesses need to possess adequate data sources and volumes to leverage SA and get actionable insights. So, the absence of a proper volume of data may lead to fruitless results.

The most difficult aspect of social media SA is determining the context. Opinions are frequently expressed using metaphors, irony, and sarcasm. Negative and positive phrases are frequently combined in the same sentence in informal language. Emojis are sometimes used to express feelings. In such instances, determining the undertone of a sentence and classifying it as positive, negative, or neutral becomes difficult.Furthermore, technology's ability to recognize distinct human emotions such as anxiety and terror is currently restricted. However, such problems are expected to decrease over time.

Conclusion

Nowadays, social media has not only become an integral part of our daily lives, but it has also become a valuable commercial asset. Business enterprises can now readily acquire actionable information with minimal costs. SA can improve everything from customer service to marketing. However, due to the complexity and technological limitations of machine learning techniques, no technique can guarantee 100 percent accuracy. Despite its limitations, SA has proven to be a tremendous platform for firms to expand.



# SENTIMENT ANALYSIS

Saifullah
2nd year, IT

# THE WEB 3.0

What is WEB 3.0 in simple terms?

Web3, also known as the decentralized web, is the third and latest" phase" of the internet. Web3 is built on peer-to-peer networks of computers that talk to each other without middlemen. Web 3.0 has the potential to change the internet as we know it forever. We're still early in catching the trend and building our first blockchain application, acquiring the skills to get a high paying job, or creating our own web 3.0 projects that can make money.

ROADMAP BEGINS:
1. Should have Web 2.0 Skills.
2. Learn the Fundamentals of Blockchain.
3. Learn About Smart Contracts.
4. Learn Solidity programming language.
5. Learn more about Decentralized applications.
6. Learn about Metamask or any equivalent Crypto Wallet.
7. Learn Web3.js and Ethers.js to connect your dAPP.
8. Practice your skills by building a blockchain application.
9. Build your Portfolio.

Blockchain Project Ideas:
- Customers Loyalty tokens.
- Pay Per Use.
- Medical Records.
- Rent Parking.
- Registry of Land Ownership.
- Ride Sharing.
- Crowdfunding.
- Charge for Consultation.
- Decentralized Hosting.

Explore all the stuffs one by one through Internet and YouTube contents. These are not all the things you need to learn to become a web 3.0 developer, there are many more things you should consider learning, but these are the main building blocks you should learn first. There is no end of learning in web development there's always something to learn.

# ROADMAP

http://

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Saikat Pandey
2nd year, IT

# TECHNOLOGY, INNOVATIONS & INDIA

They say, change is inevitable and this is true for both living and non living things. Like we can say the invitation and evaluation in technology started in 1969 after the invention of C programming language by Demise Ritchie, but standing in today's time line people does not know this cause they do not want this fact but this technology inevitably are present in every person life. So now the question arises from where did the magic of technology entered our lives and more precisely to India.

Since our independence in 1947 the Indian government was not that keen on investing on technology, money were counted by hands records were written by hand stored in lockers money was all but paper currency and most of all people didn't cared about technology. The only technology present to common man was radio. But little by little things started Changing in 1959 first television was introduced in India but some years earlier TV was introduced in Calcutta to Neogi Family. It could be referred to the first big mile stone for India and Indians to catch up with the world and all the technological miracles

The next milestone actually came some years prior to 1959. In 1955 for Indian Statistical institute ( ISI ) in Calcutta the digital computer was imported from Great Britain but first completely Indian made digital computer was built by Tata institute of fundamental Research in Mumbai and the construction was completed in 1965 the machine was known as TIFRAC (Tata Institute of Fundamental Research Automatic Calculator) .

ut almost for more than 50 years from our independence technology was used in India for either highly reputed institution for research purposes or for wealthy luxury but after globalisation in 1991 technologies like colourtelevision and newly launched Person Computer stated to flood Indian markets and common man now could enjoy technology which intent opened last and final milestone for technology to enter India

Since the dawn of computers it also opened one new sector of education and economics for mankind it was known as Information Technology and it was first introduced in India by a initiative known as Centre for Development of Telematics (C-DOT) was established in August 1984 to develop state-of-the-art telecommunication technology and meet the needs of the Indian telecommunication network. It was a initiative of PM Rajiv Gandhi who is also known as father of Information Technology in India. By the thinking bod Rajiv Gandhi and his cabinet Indians were given skills in Information Technology which was essential for the Y2k problem arising in all of digital informational storage and Big data. The first IT and CSE branch of engineering was introduced in 1984 in IIT Kanpur and which marked the beginning of Indian Information Technology Market in the Western world companies like AT&T and IBM came to India for skilled engineers for the problem of Y2K

Now we all see Information Technology had become the 3rd largest economic sector in Indian Economy and it all began with a single computer. Now we can the world has become a global village and we all enjoy that but we forget from where it all came from in India, and I will go on to say the IT engineers working in back offices are backbone of the whole socio economic stant point in future and are the unsung heroes of the world.

Sampurna Bhunia
Rajib Kr Garai

Our project focuses on the development of a web application which allows a hospital admin to login and fetch data of any of their patients. they can also upload images of chest x-ray, chest MRI, chest CT scan. This is also allows a patient to fill his health details i.e. name, age, co-morbidity, diseases etc.

**The Following Workflow Is Used Throughout The Project :-**
 *Front-end :* HTML , CSS , JavaScript ;
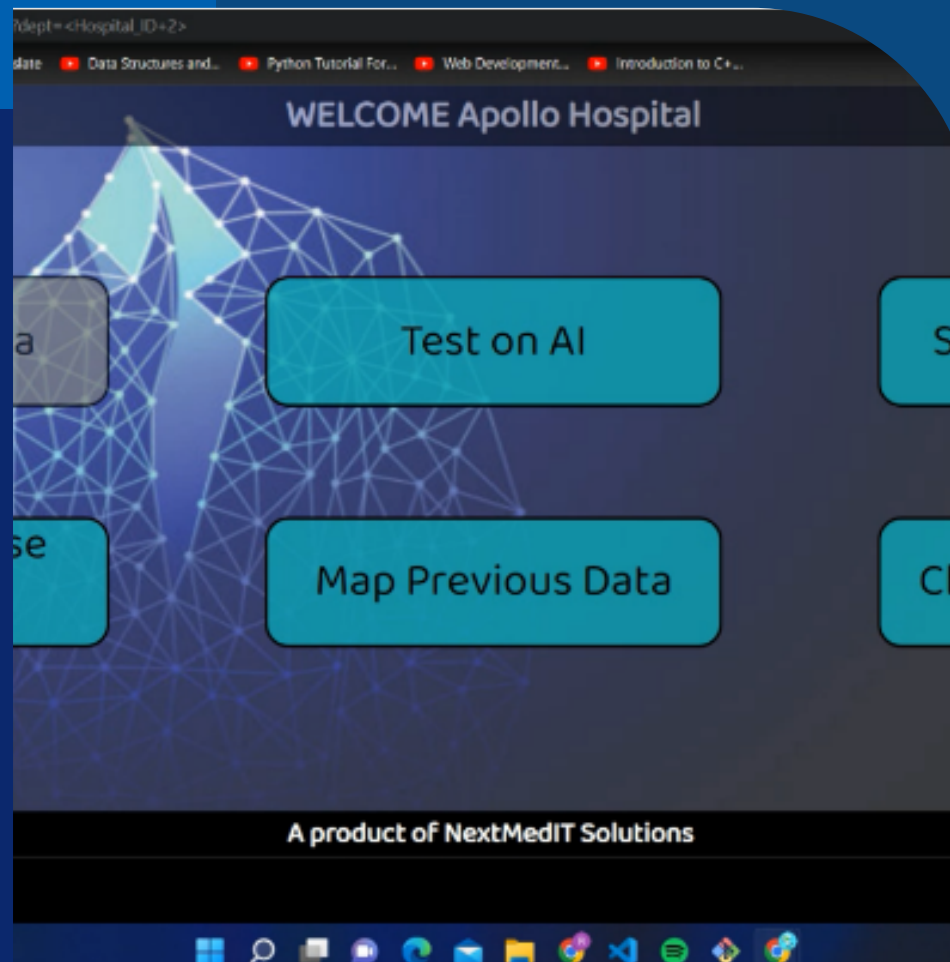 *Back-end :* MySQL, Flask;
 *Framework used :* Flask



Stand Out Features Of Our Project

 I. Easy Interface -
        As a web app with GUI and responsive CSS coding, the UI is rather smooth.
 II. Fabulous features -
        It contains a hospital dashboard with quality of features included.



# THE DIAGNOSIS AI
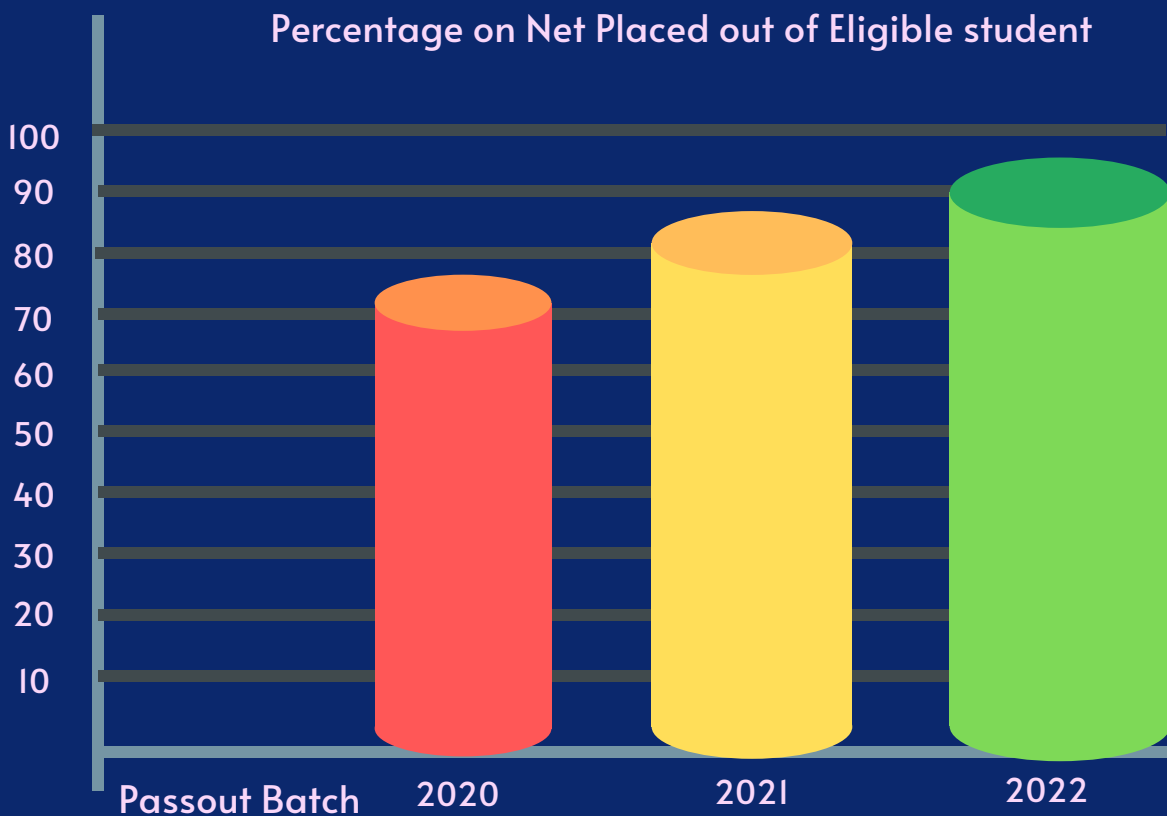
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Prapti Mukherjee
1st year, IT

# HUMANOIDS

The world stands in witness about the remarkable revelation of SOFIA. The invention made to assist humans. Over the years they received interests both as tools and artificial research. But are they safe?

Many fear the annihilation by them. Therefore, it's important to address with ambivalent sense of security. Ironically, safety is the most important benefit by helping humans on risky tasks. So, it is imperative to determine how humanoids will impact in future. However, the uncertainty of it still remains leading to leave an eerie experience involving not-quite-a-human
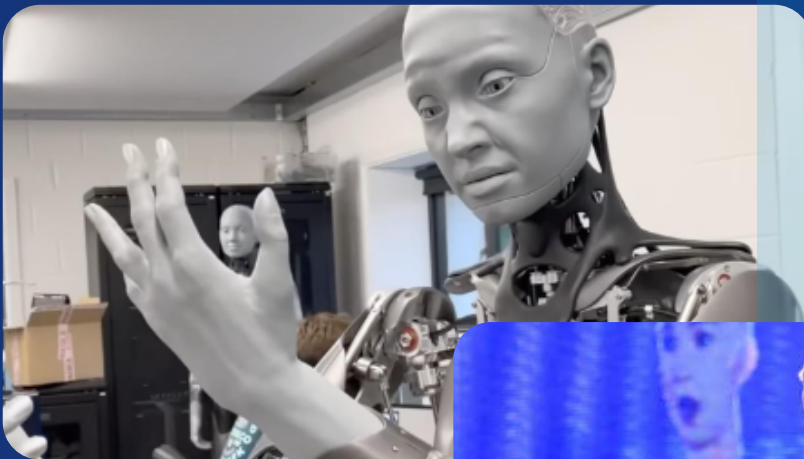
# PLACEMENT

| Passout Batch | Total students | Eligible students | Total No. of opportunies | Percentage of total opportunies | Net Placed | Percentage of net placed |
|---|---|---|---|---|---|---|
| 2020 | 98 | 95 | 98 | 103.16 | 74 | 77.89 |
| 2021 | 119 | 91 | 124 | 136.26 | 78 | 85.71 |
| 2022 | 127 | 103 | 137 | 133.01 | 94 | 91.26 |

### Percentage on Net Placed out of Eligible student

| | | | |
|---|---|---|---|
| 100 | | | |
| 90 | | | |
| 80 | | | |
| 70 | | | |
| 60 | | | |
| 50 | | | |
| 40 | | | |
| 30 | | | |
| 20 | | | |
| 10 | | | |

Passout Batch    2020      2021      2022

# Fun Fact

## INTERNET CONNECTION SPEED BY COUNTRIES.

The UAE holds the fastest mobile global average internet speed with a fantastic 110.90 Mbps download. The country with the fastest fixed broadband connection in Singapore, with 213.18 Mbps download.

The global average for mobile connections is 34.51 Mbps for download, 10.93 Mbps for upload, and 41 ms latency. The global fixed broadband average is 81.46 Mbps for download, 42.63 Mbps for upload, and 22 ms latency.

# Fun Fact

## INTERNET CONNECTION SPEED BY COUNTRIES.

The search engine world is dominated by Google, which is the most popular web search engine according to Google search stats. The top six search engines, according to popularity are:

1. Google – 92.7% market share
2. Bing – 2.8% market share
3. Yahoo! – 1.6% market share
4. Baidu – 0.9% market share
5. Yandex – 0.8% market share
6. DuckDuckGo – 0.5% market share

# FUN FACT

## MOST POPULAR APPLICATIONS USED ON MOBILE PHONES.

Based on this research for August 2020, the top ten most popular non-game apps on mobile phones are:

1. Tiktok – 63.3 million installs
2. Zoom – 52.2 million installs
3. Snack Video – 43 million installs
4. Google Meet – 38 million installs
5. Instagram – 36 million installs
6. WhatsApp – 34 million installs
7. Snapchat – 24 million installs
8. Telegram – 22 million installs
9. Facebook – 20 million installs
10. Messenger – 17 million installs

## MOBILE TECHNOLOGY GROWTH STATISTICS

Technology is everywhere, even when we go mobile with our cell phones and tablets. Here are some mobile technology statistics.

·Statisa shows nearly 15 billion mobile devices in use in 2021, a number expected to reach 18.22 billion by 2025.

·On a global scale, the smartphone industry is expanding at a CAGR of 16.4%, according to Zippia.

·In the last decade, smartphone ownership has increased by 50% in the US.

·Global tablet shipments are expected to hit 142 million by 2025, reports Statista.

·Wearable technology is expected to grow to global shipments of 489.1 million devices by 2023.

# Fun Fact

## Virtual Reality: Rate of Acceleration Statistics

VR/AR was essential for helping companies during the pandemic when personal transactions and purchasing was made impossible, helping to accelerate the rate of adoption.

·Shopify reports a 94% higher conversion rate for retail customers using AR/VR technology than those without.

·IBM reports that 40 % of small businesses and midsize organizations are evaluating AR/VR, with Gartner estimating as many as 70% looking to invest in 2022.

# Fun Fact

## AI AND MACHINE LEARNING TECHNOLOGY GROWTH STATISTICS

AI and machine learning are set for significant growth and expansion. In fact, machine learning, deep learning and NLP (natural language processing) are the three skills that are most in-demand skills on Monster.com.

·Artificial Intelligence is expected to contribute $15.7 trillion to the economy by the year 2030.

·The global machine learning market is to grow to $152.24 billion in 2028 at a CAGR of 38.6%.

·99Firms predicts that machine learning will power 8.4 billion voice assistants by 2024.

·Genpact predicts that by 2025, firms who have adopted AI will be 10 times more efficient and have twice the market share than those who haven't.

·91.6% of Fortune 1000 companies have plans to invest more in big data and AI initiatives.

# CROSSWORD
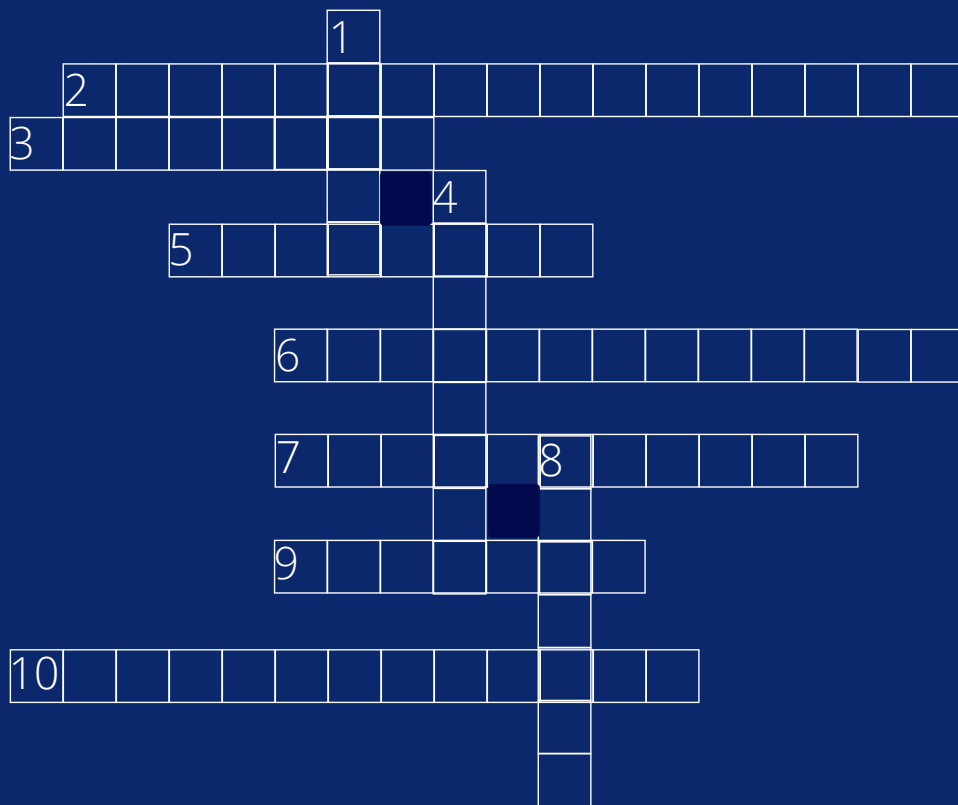
**HINTS**

Across
2. Protection for your computer
3. Most commonly used password
5. Trying to steal other people&#39;s sensitive information
6. Being harrassed or threatened online
7. Files sent through email
9. Symbol to look for before entering ANY personal details
10. Being pursued by someone through the

Down
1. Software programs designed to corrupt computers
4. Software protecting computers from danger
8. Trying to break into computer systems
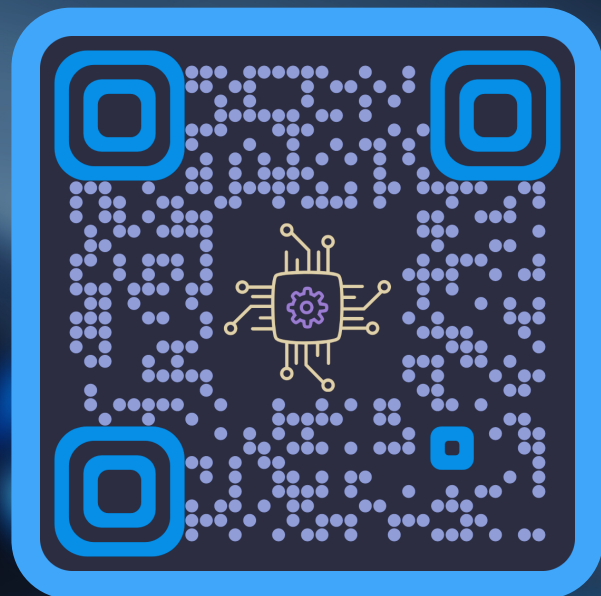
**Coordinator**

**SOURAV CHAKRABORTY**

IT 3rd Year

**Designed by**

**SK SAIFUDDIN**

IT 2nd Year