



Department of Computer Science & Engineering

IMS Engineering College





This is the monthly e-magazine
Released by our computer
science department for sharing of information
and updating
students with information useful to them and
helpful in their
development

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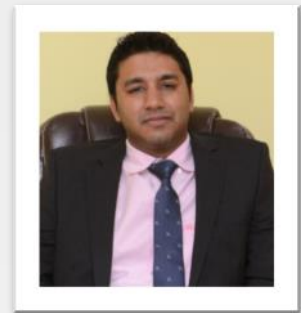
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VISION - OUR VISION IS TO IMPART VIBRANT, INNOVATIVE AND GLOBAL EDUCATION TO MAKE IMS THE WORLD LEADER IN TERMS OF EXCELLENCE OF EDUCATION, RESEARCH AND TO SERVE THE NATION IN THE 21ST CENTURY.

MISSION -

- TO DEVELOP IMSEC AS A CENTRE OF EXCELLENCE IN TECHNICAL AND MANAGEMENT EDUCATION.
- TO INCULCATE IN ITS STUDENTS, THE QUALITIES OF LEADERSHIP, PROFESSIONALISM, EXECUTIVE COMPETENCE AND CORPORATE UNDERSTANDING.
- TO IMBIBE AND ENHANCE HUMAN VALUES, ETHICS AND MORALS IN OUR STUDENTS.
- TO TRANSFORM STUDENTS INTO GLOBALLY COMPETITIVE PROFESSIONALS.

DEPARTMENT

VISION - TO BE RECOGNIZED AS A CENTRE OF EXCELLENCE IMPARTING QUALITY EDUCATION AND CREATING NEW OPPORTUNITIES FOR STUDENTS TO MEET THE CHALLENGES OF TECHNOLOGICAL DEVELOPMENT IN COMPUTER SCIENCE & ENGINEERING.

MISSION -

- TO PROMOTE TECHNICAL PROFICIENCY BY ADOPTING EFFECTIVE TEACHING LEARNING PROCESSES.
- TO PROVIDE ENVIRONMENT & OPPORTUNITY FOR STUDENTS TO BRING OUT THEIR INHERENT TALENTS FOR ALL ROUND DEVELOPMENT.
- TO PROMOTE LATEST TECHNOLOGIES IN COMPUTER SCIENCE & ENGINEERING AND ACROSS DISCIPLINES IN ORDER TO SERVE THE NEEDS OF INDUSTRY, GOVERNMENT, SOCIETY AND THE SCIENTIFIC COMMUNITY.
- TO EDUCATE STUDENTS TO BE SUCCESSFUL, ETHICAL AND EFFECTIVE PROBLEM-SOLVERS AND LIFE-LONG LEARNERS WHO WILL CONTRIBUTE POSITIVELY TO THE SOCIETY.

PROGRAM EDUCATIONAL OBJECTIVES

- GRADUATES OF THE PROGRAM WILL BE ABLE TO APPLY FUNDAMENTAL PRINCIPLES OF MATHEMATICS, ENGINEERING, MANAGEMENT, BASIC PROGRAMMING LANGUAGES IN PROBLEM UNDERSTANDING & FORMULATING ITS SOLUTIONS. THEY WILL BE AWARE OF THE ROLE OF COMPUTING IN MULTIPLE DISCIPLINES.
- GRADUATES WILL LEARN TO APPLY THE PRINCIPLES OF ADVANCED COMPUTER PROGRAMMING & APPROACHES, SOFTWARE ENGINEERING, PROJECT MANAGEMENT, EMERGING TECHNIQUES & TOOLS WHILE DEVELOPING REAL WORLD COMPUTATIONAL SOLUTIONS AND PROJECTS. GRADUATES SHOULD ALSO LEARN TO COLLABORATE & APPLY INNOVATIVE ASPECTS IN PROBLEM SOLVING.
- GRADUATES WILL ENHANCE THEIR TECHNICAL, APTITUDE, COMMUNICATION & PROFESSIONAL SKILLS THROUGH VALUE ADDITION PROGRAMS, PROJECT BASED LEARNING, ENGINEERING EVENTS, SELF-LEARNING, RESEARCH, INTERACTION WITH INDUSTRY & ALUMNI. HELP OUR GRADUATES TO ESTABLISH A PRODUCTIVE COMPUTER SCIENCE AND ENGINEERING CAREER IN INDUSTRY, GOVERNMENT OR ACADEMIA.
- TO PROMOTE THE UNDERSTANDING OF PROFESSIONALISM, ETHICS, SOCIAL RESPONSIBILITIES AMONG GRADUATES. THEY WILL CONTRIBUTE TO THE SOCIETY THROUGH ACTIVE ENGAGEMENT WITH PROFESSIONAL SOCIETIES, SCHOOLS, CIVIC ORGANIZATIONS OR OTHER COMMUNITY ACTIVITIES. TO PROMOTE PROFESSIONAL CAPABILITIES THROUGH LIFELONG LEARNING.

PROGRAM SPECIFIC OUTCOMES (PSO'S)

- STUDENT SHOULD LEARN TO DEMONSTRATE THE BASIC UNDERSTANDING OF COMPUTER SCIENCE & ENGINEERING FUNDAMENTALS, PROGRAMMING, AND PROFESSIONAL/SOCIAL ETHICS AND APPLY MATHEMATICAL FOUNDATIONS TO DESIGN & SOLVE COMPUTATIONAL PROBLEMS.
- STUDENT SHOULD LEARN TO APPLY ANALYSIS, DESIGN, DEVELOPMENT, TESTING & MANAGEMENT PRINCIPLES IN THE DEVELOPMENT OF COMPUTATIONAL SOLUTIONS & SOFTWARE SYSTEMS; HE/SHE IS EXPECTED TO FUNCTION EFFECTIVELY IN DEVELOPMENT TEAMS.
- STUDENT IS EXPECTED TO GAIN ENOUGH VALUE ADDITION AND TECHNICAL EXPERTISE ON LATEST INDUSTRY SPECIFIC SKILLS THROUGH SELF LEARNING & TRAINING. THEY ARE EXPECTED TO HAVE GOOD COMMUNICATION SKILLS WITH CORRECT ATTITUDE AND APTITUDE.
- STUDENTS ARE EXPECTED TO INSPIRE FOR LIFELONG LEARNING & DO WELL IN THEIR PROFESSIONAL CAREERS. THEY ARE ALSO EXPECTED TO ACT AS A GOOD CITIZEN BY INCULCATING IN THEM MORAL VALUES & ETHICS.



MESSAGE FROM HoD.....

I am so proud & delighted to congratulate the editorial team of BYTE for completing 5 successful years of publication. BYTE is a monthly e-magazine being published by Department of Computer Science & En-

gineering. It all started five years back when some students published the first issue & requested us to release it on Teacher's Day. Since then Byte has seen a successful journey under the supervision of our editorial team including faculty & students.

BYTE has always been one of the major highlights & showcase for our student's talent, departmental activities, achievements of our students and latest technological advancements in Computing.

With the time we have added many dimensions to our magazine. Currently it includes technical articles in computing domain, literary articles, coding challenges, alumni talks, departmental events, placement opportunities, upcoming events at national/international level.

I wish to thank all the editorial team members of BYTE for their continuous effort & passion for improving the quality of BYTE contents.

BYTE is an asset to the department. Congratulations once again to all the editorial members of BYTE.

Keep it up...

FROM EDITORIAL DESK.....

It is with immense happiness that we place in the hands of our readers this edition of 'THE BYTE'. This magazine is a platform that exhibits the literary skills, innovative ideas of teachers and students. It was crazy when we stated it but when it all come together, we were more than happy.

I would like to thank to Dr. Pankaj Agarwal (HOD CSE), editorial team members (Ms. Juhi Chaudhary & Ms. Vijya) and all student coordinators (Nitish, Suyash, Mukhar, Krati, Priyansh, & Priyanka) for helping us pull this through.

We express our considerable appreciation to all the authors of the articles in this magazine. These contributions have required a generous amount of time and effort. We hope you enjoy reading these articles, as seen through the IMS student's journalistic eye.

Thank you all!!

*Chief Editor
THE BYTE*

THE NEED FOR AN IPO IN TECH STARTUPS IS SHRINKING NOWADAYS.

An Initial Public Offering(IPO) always seems like a crucial aspect after angel funding and other seed funding rounds for a startup. Its been around two years since we have a number of startups raising a huge pile of bucks continuously from the investors.

Some of the renown tech-startup bloggers also claimed that few of them have got almost the double of their proposed business model. Bringing out the solutions for the problems people face in their daily lifestyle is considered as the most significant reason behind this. The ingenious creativity of young minds tempts the investors following to make them fall for the proposed business model.

After that here comes Venture Capital Firms (Savior for startups). These firms typically have one or more investment portfolios that are owned by a limited partnership. The Venture Capitalist is often a general partner in the portfolio and individual investors (or other institutions) are limited partners in the limited partnership.

Somewhere it also shows the increasing concerns and awareness of people towards these aspects of recognizing their common problems. Finding some sustainable methods to obtain a better solution together in the form of these startups. And if we talk about the decreasing urgency of IPO in these cases, then in my opinion if you have a Zomato Voucher for 1000 bucks, why would you go out to spend your 50 buying yourself a treat.

AKSHAT MUKHRIYA

III Year CS1

F.R.I.E.N.D.S

Whenever it comes about writing an article I always think of submitting something beneficial for everyone and something to which everyone can relate. We all have friends. They are there for you when you need them the most. Well most of them are. So my this article is dedicated to all those silent geeks who are my friends right here at IMSEC. Sipping tea together or playing Rainbow Siege Six together or discussing something very stupid together I made some friends and yeah pretty good ones too. We are not blood related but we are the tiny pieces of one greater soul. This soul is complete in nature.

There are all sorts of friends –the nerd, the sarcastic, the optimist, the lover, the loudmouth, the poser, the sycophant, the socially awkward, and the intellectual. Some would help us with assignments and projects, some would borrow money and never pay it back. But no matter what type they are they will stick around for you when you need them.

The best thing about friendship is to be able to share silence, yet know what's going on each other's minds. To be each other's strength. To know that even if you had a bad day, in the end you'll always have someone whom you can count on. To just sit someplace, like we were at that canteen, sipping our tea contently, knowing that nothing can diminish our spirits. To care and love relentlessly, through thick and thin; to fight and love again. That friendship is the most selfless deed in the world.

So here's to friendship. I'll be there for you!

MUKHAR BAJPAI
(CS 3RD YEAR)

EMINENCE OF BLOCKCHAIN EVOLUTION:-

Blockchain technology allows consumers and suppliers to connect directly, removing the need for a third party. It provides a decentralised database or digital ledger of transactions that everyone on the network can see. Or we can say it is a simple way of transaction. Let us study through this article about blockchain technology, where it is used, who invented blockchain, technology, what are its advantages and disadvantages, is it safe to use etc.

Blockchain technology is associated with crypto-currencies like bitcoin and others.

Have you ever imagined a world where there is not necessary to validate any sale or purchase with no receipts, no bank documents and no need of registering or disposal of property with the concerned government department?

We know that buying or selling of any property is put in a record. Before taking a commercial decision we always want that all the information should be available at one place. This is possible only when a technology of code writing in financial system circles all over the world. Isn't it. *And this developed the root for Blockchain Technology.*

While doing any transaction the main problem is about trust. Can one trust another party? This made a need for legally binding stamps and seals and to maintain records.

Several centuries ago, when populations and commerce were both a tiny fraction of what they are now, some communities maintained a ledger of all financial transactions, which was open to public scrutiny and anything mentioned in the ledger acquired the status of truth.

Gradually do you know what happened, these records become voluminous and to keep them or to maintain them was very difficult. And so it became the function of government departments and banks and was no longer freely available to the public

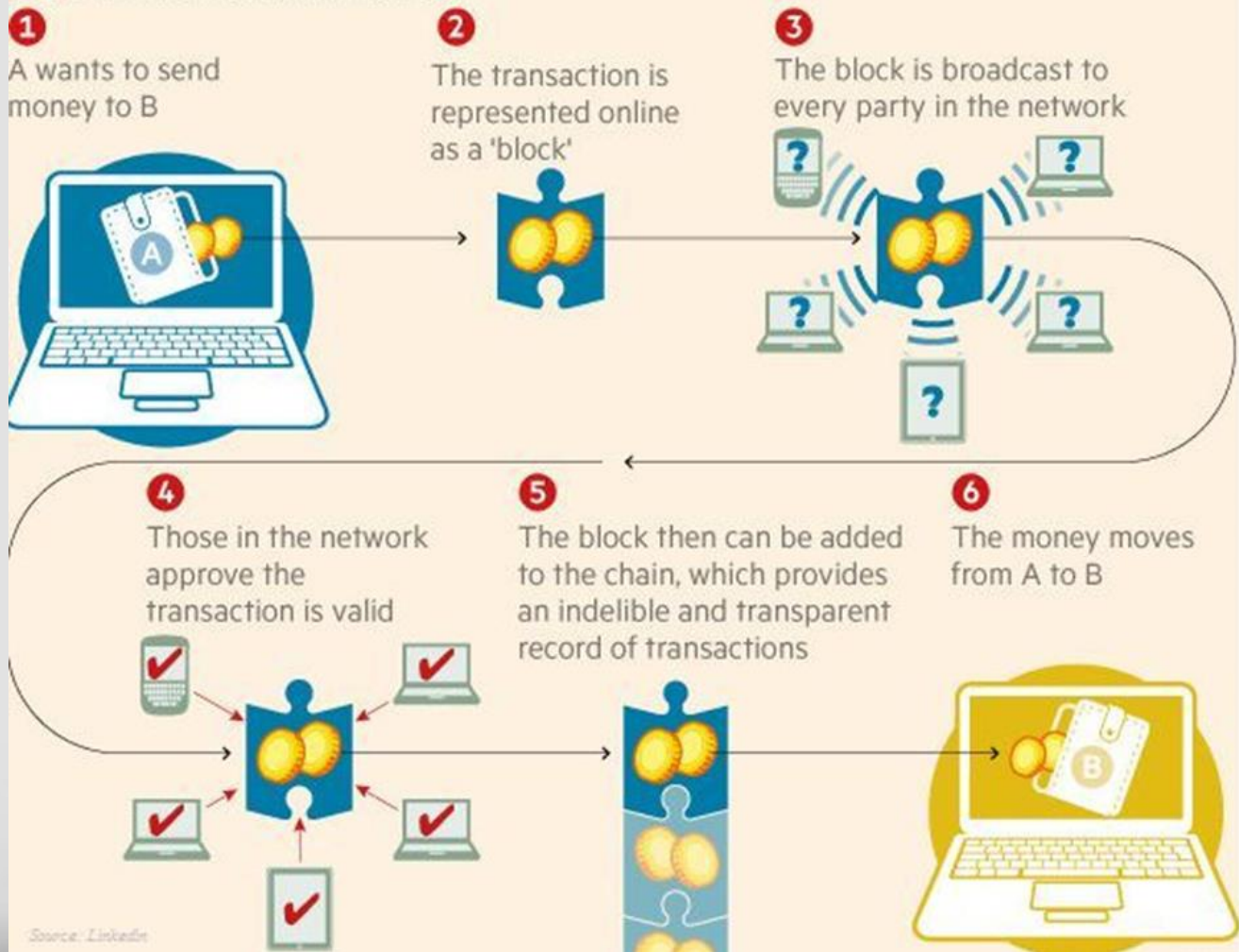
A Microsoft Excel Sheet file in your computer or laptop with the details of some of your transactions is known as a **ledger**.

If your Excel file is copied to hundreds of your friend's computers and connected to each other forming a network is known as **distributed ledger**. And if there will be a technology to update this Excel sheet whenever you or your friends update a ledger.

Therefore, **blockchain is nothing but a digital ledger**. That is a book containing accounts to which debits and credits are posted from books of original entry.

A blockchain is an anonymous online ledger that uses a data structure to simplify the way we transact. Without the help of third party blockchain allows users to manipulate the ledger in a secure way. It protects the identities of the users. This way blockchain is a more secure way to carry out transactions. Each list of records in a blockchain is called a block. That is why it is known as blockchain because the various growing list of records i.e. blocks are linked and secured.

How a blockchain works



Why Blockchain technology is required?

The blockchain technology is a method that brings everyone to the highest degree of accountability. With the help of this technology no more transactions will be missed, human or machine errors will be minimised etc. Even nowadays major banks are experimenting this technology as they can use it for money transfers, record keeping and other backend functions. As an un-alterable ledger in real time it enables them to track documentation and authenticate ownership of assets digitally. Also, Indian IT service providers like Infosys and TCS companies are using this technology to create core banking platforms for banks.

- It will allow smart devices to speak to each other better and faster.
- Blockchain mechanism brings everyone to the highest degree of accountability. Therefore, solves the problem of manipulation.
- The data that belongs to us we can own it that is online identity and reputation will be decentralised.
- Cryptocurrencies will take the power from the government to control the value of currencies and hand it to people.

- It will allow middleman-free way to exchange asset.
- It will allow the removal of intermediaries that are involved in record keeping and transfer of assets.
- It provides durability, reliability, and longevity with decentralised network.
- The data that are entered in blockchain based systems are immutable which prevent against fraud through manipulating transactions and the history of data. Therefore, all the transactions can be investigated and audited easily.

Challenges of Blockchain Technology

To verify all the transactions huge power i.e. electricity is required.

There should be security about the private key. Every time private key must remain secret because revealing it to third parties is equivalent to giving them control over the bitcoins secured by that key. Also, it is necessary to have a backup of the private key so that it can be protected from accidental loss. We know that if it is lost ones cannot be recovered and the funds secured by it are lost forever.

We know blocks in a chain must be verified by the distributed network and it can take time. So, transaction speed can be an issue.

Is Blockchain technology safe to use?

Hope from the above discussion, it is clear that no doubt blockchain architecture can significantly bring down the costs and reduce inefficiencies in the financial sector. As, it allows two parties to execute a transaction without any intermediary. Without any human intervention blockchain allows financial institutions to execute and verify transactions discretely. And transactions are continuously maintained and verified in 'blocks' of records.

With the advancement of technology and the development of society the main goal of the government is to provide a method for a secure way of transactions. Whether methods are advanced or new technologies are emerging but the goal is same. As, blockchain allows consumers and suppliers to connect directly, removing the need for a third party.

HERE'S WHY FLIPKART LAUNCHED ITS OWN VIDEO STREAMING SERVICE

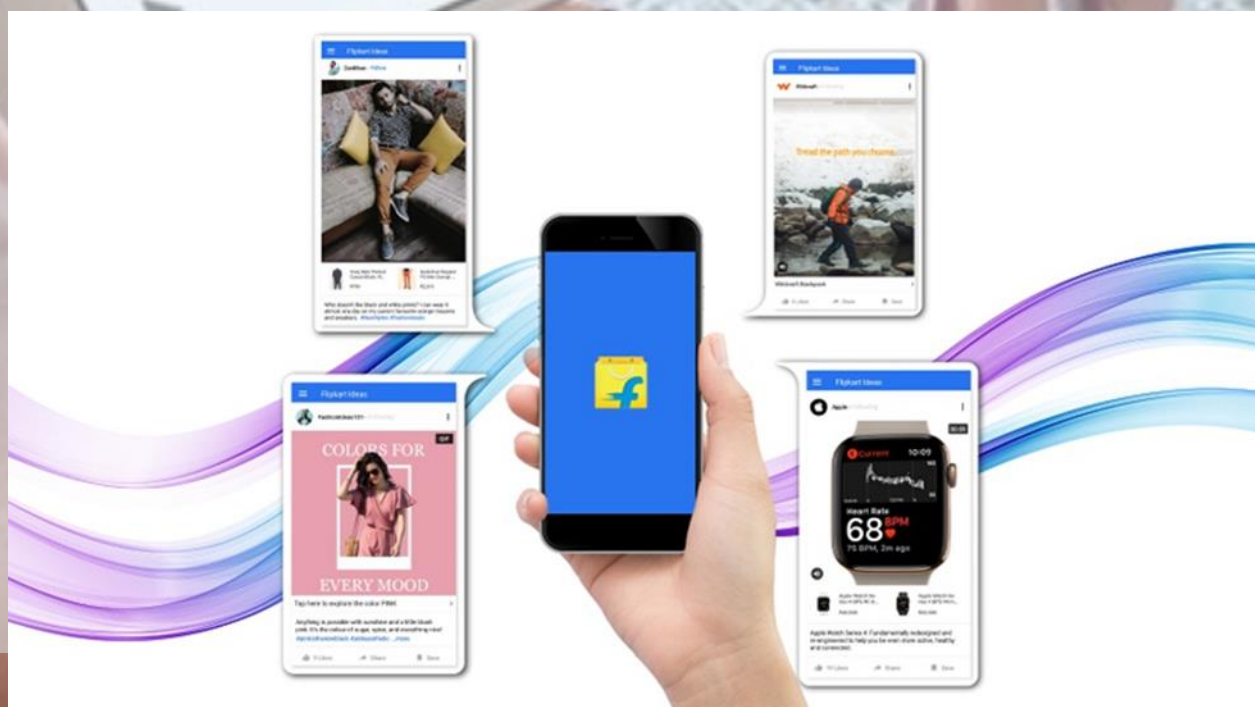
In what seems to be a strange move, [Flipkart](#) recently announced a new video streaming service that has already been made available for its Android app since. This new free streaming service is integrated right into the shopping application and doesn't come in a separate app like Amazon's Prime Video does.

But despite what it seems, this new service was not launched to directly lock horns with [Prime Video](#) and participate in a duel to be one of the country's leading OTT services. In fact, this is what Flipkart might call a strategic move in a game that is bigger than just OTT services. And the path it's taking, it eventually hopes, will help it grab a bigger slice of the evergrowing e-Commerce pie.

[Flipkart has set its eyes on the next 200 million users](#) who hail from Tier II and Tier III cities and will connect to the internet. It is those eyeballs that Flipkart is after more than the existing set that already has access to its services and are connected.

"Flipkart Ideas" also aims at making curated content around Flipkart products for the next 200 million users.

What better way to capture the eyeballs of this cohort than offering free media content? In India currently, most OTT services operate on either a subscription service or a freemium model. But Flipkart isn't interested in either. Instead, it wants to give every idle and eager set of eyes completely free content to watch.



But how does Flipkart benefit if it won't charge users?

Well, in short, Flipkart thinks that this will eventually increase the loyalty of these newbies and existing customers to the brand and they will be more inclined to make a purchase on their online store. [Amazon's Prime subscription](#) service took exactly the opposite route. Instead of opting for delayed (monetary) gratification, it chose to launch a paid subscription service that would offer a lot of bang for one's buck. [According to a report by research firm RedSeer](#), about 50% of Amazon Prime subscribers primarily paid for the service to access content via Prime Video. And since they had already paid the money for the service, they would now seek to get more from the fees by making use of Prime's faster delivery services or any of the other perks that the subscription offered. This generated loyalty of Prime subscribers towards Amazon and its services. Amazon has been vocal about how its Prime subscribers yield almost double the revenue of its non-Prime subscribers. But Flipkart doesn't want to charge the audience before the circus act has started. Instead, it wants them to enjoy the show the first and then eventually hope that they shell out money for its services and offerings. By offering a free streaming service it wants to increase its brand awareness and let the name seep into the minds of these impressionable consumers. It then wants to use this brand recall to erase the stigma against online shopping and hope that they eventually give in to the online shopping revolution and add to Flipkart's bottom line.

Flipkart, very cleverly, has hidden the video streaming service in the Flipkart menu list. This subconscious marketing also cannot be underestimated in influencing the behaviour of these new consumers.

Another thing Flipkart could gain from this streaming service is dearths of data regarding consumer behaviour and patterns. This information could, in turn, be studied to improve the Indian e-Commerce company's services and offerings. So, while this might seem like a strange move at first, this could be the golden egg that Flipkart has been waiting to lay. But if this plan will hatch or not, only time will tell. For now, it's three major hurdles will be attracting eyeballs, curating content and harnessing the attention it gets to generate more revenue.

By Suprateek Halsana (CS3 3rd year)

YOUTUBE TO SHUT DOWN ITS PRIVATE MESSAGES TO KEEP THINGS MORE PUBLIC

It was two years back when YouTube first launched a private messaging feature that would allow you to share videos using direct messages on YouTube. The direct messages feature on YouTube was aimed at improving public conversations on the platform along with a slew of other features that were released on the platform. YouTube has now announced that it will discontinue its native direct messaging feature after September 18.

“We’re constantly re-evaluating our priorities and have decided to discontinue YouTube’s native direct messaging feature while we focus on improving public conversations,” wrote Google employee Hazel on the Google Support page. YouTube direct message feature allows users to share their favorite videos with their friends and have conversations in groups with upto 30 people. Now although Google has confirmed that it will be withdrawing away the private messaging feature, it hasn’t mentioned any clear reason behind its decision.

However, as pointed out by TechCrunch, the decision likely emerged because the feature wasn’t as well-utilized as YouTube hoped it would be. This makes sense since there are already too many messaging apps that exist on the web, posing strong competition to the YouTube messaging feature. This in turn makes it hard for the YouTube direct message feature to get a wide reach. Another possible reason could be that the feature was largely primarily being used by children who couldn’t be active on other platforms due to implemented parental bans across them.

Google hasn’t officially released any details surrounding its decision though and it appears that the change hasn’t been accepted well by some users who are raising questions as to why YouTube always keeps removing its useful features and that it’s a bad idea. But, this is not the first time when YouTube has gotten rid of features from the platform. A slew of other features including the video editor, star ratings, private channels, video reactions, video responses, featured content, et al, have also been removed from the platform.

Sachin Aggarwal(CS3 3rd year)

THE AMAZON RAINFOREST IS STILL ON FIRE: WHAT'S HAPPENING AND HOW YOU CAN HELP

The Amazon rainforest is burning at a record rate-- the highest on record since 2013 and an 83% increase from last year, Reuters reported. Earlier this month, Brazil declared a state of emergency over the rising number of fires in the region. So far this year, almost 73,000 fires in the country have been detected by Brazil's space research center, INPE.

What caused the fires?

While the Amazon rainforest is typically wet and humid, July and August -- the onset of the dry season -- are the region's driest months, with "activity" peaking by early September and stopping by mid-November, according to NASA.

Fire is often used to clear out the land for farming or ranching. For that reason, the vast majority of the fires can be attributed to humans, Christian Poirier, program director of the nonprofit Amazon Watch, told CNN. Brazil's president, Jair Bolsonaro, has said publicly that he thinks the fires were set by non-governmental organizations (NGOs) in retaliation to funding cuts. Bolsonaro didn't provide any evidence for his claims and then later said he never accused any groups, according to the BBC.

What's the connection to climate change?

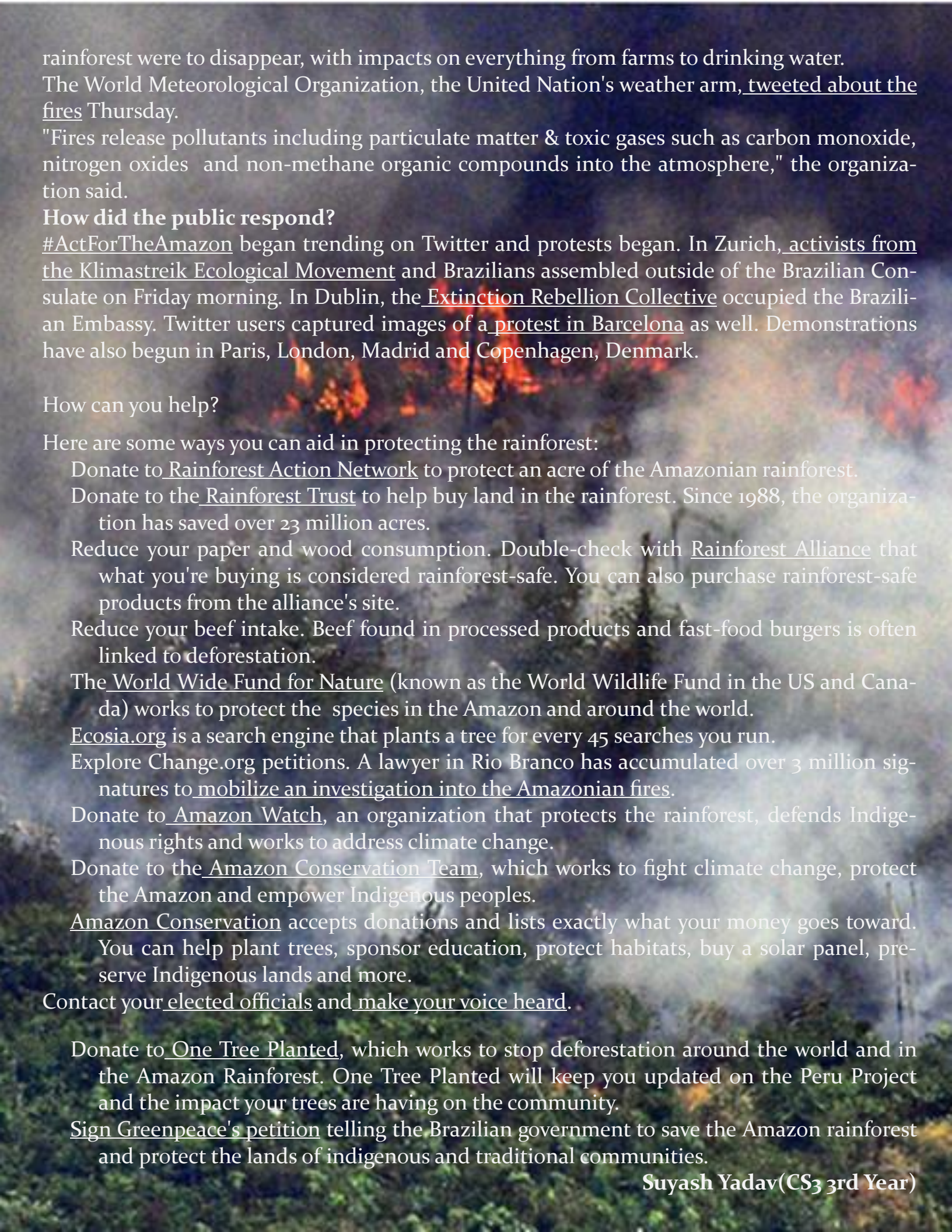
In a release Thursday, Greenpeace said that forest fires and climate change operate in a vicious circle. As the number of fires increase, greenhouse gas emissions do too. This makes the planet's overall temperature rise, the organization said. As the temperature increases, extreme weather events like major droughts happen more often.

"In addition to increasing emissions, deforestation contributes directly to a change in rainfall patterns in the affected region, extending the length of the dry season, further affecting forests, biodiversity, agriculture and human health," Greenpeace said in the release.

What areas are affected?

Satellite images show fires in the Brazilian states of Amazonas, Rondonia, Para and Mato Grosso. The state of Amazonas is most affected, according to Euronews.

Effects of damage to the Amazon go far beyond Brazil and its neighbors. The area's rainforest generates more than 20% of the world's oxygen and is home to 10% of the world's known biodiversity. The Amazon is referred to as the "lungs of the planet" and plays a major role in regulating the climate. The world would drastically change if the



rainforest were to disappear, with impacts on everything from farms to drinking water. The World Meteorological Organization, the United Nation's weather arm, tweeted about the fires Thursday.

"Fires release pollutants including particulate matter & toxic gases such as carbon monoxide, nitrogen oxides and non-methane organic compounds into the atmosphere," the organization said.

How did the public respond?

#ActForTheAmazon began trending on Twitter and protests began. In Zurich, activists from the Klimastreik Ecological Movement and Brazilians assembled outside of the Brazilian Consulate on Friday morning. In Dublin, the Extinction Rebellion Collective occupied the Brazilian Embassy. Twitter users captured images of a protest in Barcelona as well. Demonstrations have also begun in Paris, London, Madrid and Copenhagen, Denmark.

How can you help?

Here are some ways you can aid in protecting the rainforest:

Donate to Rainforest Action Network to protect an acre of the Amazonian rainforest.

Donate to the Rainforest Trust to help buy land in the rainforest. Since 1988, the organization has saved over 23 million acres.

Reduce your paper and wood consumption. Double-check with Rainforest Alliance that what you're buying is considered rainforest-safe. You can also purchase rainforest-safe products from the alliance's site.

Reduce your beef intake. Beef found in processed products and fast-food burgers is often linked to deforestation.

The World Wide Fund for Nature (known as the World Wildlife Fund in the US and Canada) works to protect the species in the Amazon and around the world.

Ecosia.org is a search engine that plants a tree for every 45 searches you run.

Explore Change.org petitions. A lawyer in Rio Branco has accumulated over 3 million signatures to mobilize an investigation into the Amazonian fires.

Donate to Amazon Watch, an organization that protects the rainforest, defends Indigenous rights and works to address climate change.

Donate to the Amazon Conservation Team, which works to fight climate change, protect the Amazon and empower Indigenous peoples.

Amazon Conservation accepts donations and lists exactly what your money goes toward.

You can help plant trees, sponsor education, protect habitats, buy a solar panel, preserve Indigenous lands and more.

Contact your elected officials and make your voice heard.

Donate to One Tree Planted, which works to stop deforestation around the world and in the Amazon Rainforest. One Tree Planted will keep you updated on the Peru Project and the impact your trees are having on the community.

Sign Greenpeace's petition telling the Brazilian government to save the Amazon rainforest and protect the lands of indigenous and traditional communities.

Suyash Yadav(CS3 3rd Year)

GOOGLE PHOTOS CAN NOW HELP YOU FIND TEXT THAT APPEARS IN IMAGES

Google's baked-in search feature in its Photos app has long been handy in letting you scan the likes of objects, locations or even pets within your photo library courtesy of some clever AI. Well, that same search feature's just become smarter.

The feature, known as optical character recognition (OCR) is actually technology which is already a part of Google Lens and is now being brought to the Google Photos app. The new addition, [according to 5 To 1 Google](#), has started rolling out and is now available on some Android devices.

Once your device gains the new capability, you will be able to search for text that appears within your photos or screenshots and then copy it using the Lens feature to paste it in a document or form. The new feature was confirmed by Google Photos on Twitter.

This feature will essentially allow you to search for words and bring up all results where that phrase physically appears, no matter how small or if it's at an angle. While we haven't used the feature a lot, I can vouch that the feature does performs very well on screenshots, but also works on any text that appears in an image.

The text search feature appears to be ideal for documents, WiFi passwords, and anything else that you've saved by taking a picture. This works on both the Android and iOS apps, as well as the web client.

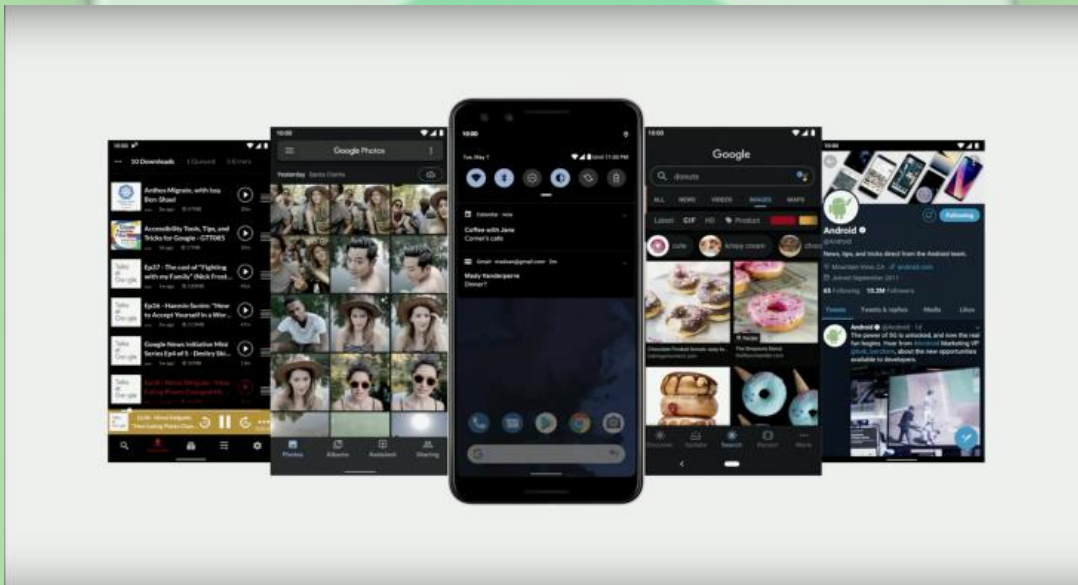
What's more is that once you find the photo you're looking for, you have the option of simply clicking the Google Lens button to easily copy and paste text.

Archit Singh (CS1 3rd Year)

TOP 10 FEATURES OF ANDROID 10 THAT YOU SHOULD KNOW ABOUT

[Google](#) has officially renamed the upcoming Android Q to Android 10. The final beta for Android 10 was released earlier this month and it shouldn't be long before [Android 10](#) officially launches. Android 10 has a lot of focus on privacy along with plenty of tweaks in the UI. Let's take a look at the top 10 features that you should look forward to in the upcoming update.

System-wide Dark Mode



This is by far the most popular feature that's making it to Android 10. While Google has already implemented dark mode in most of its applications, it is now going to be applied system-wide on Android 10. If you're worried about not having a dark mode on third-party apps, Google will also allow you to "Override force-dark" on them.

A new gesture-based navigation system

Android is doing away with the pill-shaped navigation icon and is instead opting for an *iPhonesque* navigation line. From this line, you can swipe up to go home, swipe from ei-

ther side to go back and swipe up and hold to reveal the multitasking menu. This also means that Google will be killing its back button that has been ubiquitous over all its past releases.

Live Captions



Google has become more conscious about the length and breadth of its userbase. Live Caption can provide real-time captions for just about anything that's playing on your phone. What's better is that your phone won't need an internet connection for this to work. It works offline and is crucial for people who are hard-of-hearing or deaf.

An improved sharing menu

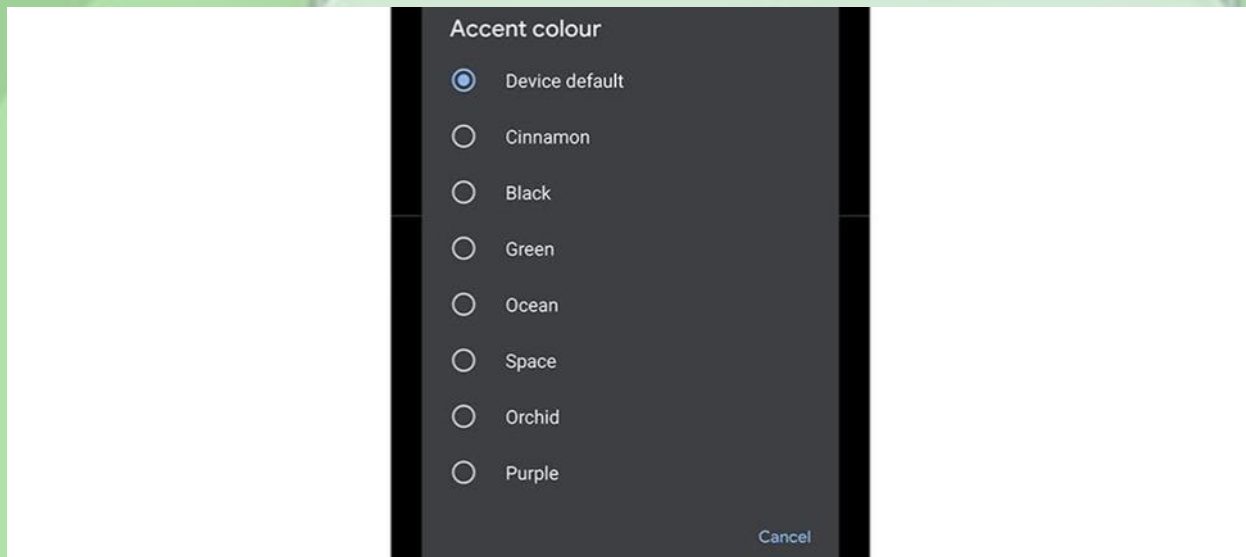
Android's sharing menu is definitely the most intuitive part of the UI. It's slow to load and just doesn't feel as natural as it should. Google is addressing this with Android 10 and according to them, "the share UI can load instantly when it's launched". They're also launching "Sharing Shortcuts" that allows developers to create new options in the sharing menu.

Privacy permissions

The world has never been so conscious about privacy before. Google understands that this is an essential part of Android and is changing the way apps and services can access information. For example, when an application asks for your location access now you'll also have an option to grant location access to the app only when you're using it. The "Permissions usage" page it-

self is receiving an overhaul and you can expect much better control on what apps have access to and don't.

Theming options



Google is now playing with colours and wants you to too. By default, Android's UI accents have been painted in blue. But with Android 10 you can now change the accent colour. As of the latest update, the colours available are Blue, Black, Green, Purple, Cinnamon, Ocean, Space and Orchid. But this might not be the case for the final release.

Screen Recording

Although a very simple addition, Android had been missing this feature. With Android 10, Google now natively supports screen recording. Although to enable it, you'll need to dig into developer settings.

Native Desktop Mode

Android 10 has an all-new Native Desktop Mode that is similar to what we've seen Samsung do with Dex. When you connect your phone to an external monitor your phone will switch to Desktop Mode and you'll be able to use freeform multi-windows to open and move apps anywhere. Although it is far being as comprehensive as Samsung Dex is, it's a start!

Share WiFi via QR Code



If you've ever pulled your hair over not remembering the WiFi password when you needed to share it, Android 10 has you covered. With Android 10, you can now share your WiFi password via a QR Code. But before generating a QR Code, you'll have to pass biometrics or enter your phone's pattern/pin cause security? As mentioned before, there are a lot of privacy/security-focused features in Android 10.

Support for Foldable phones

Yes, Google was very local about how Android 10 will support foldable phones when the infamous [Samsung Galaxy Fold](#) and the [Huawei Mate X](#) were announced earlier this year. While there isn't a functional phone that you can buy just yet, it's good to know that when they do launch we won't experience a glitchy UI.

Jatin Shrivastava (CS2 3rd year)

THESE ARE THE 5G-ENABLED DEVICES THAT ARE AVAILABLE RIGHT NOW

The year of our Lord 2019 marked the first time wireless 5G service became commercially available in the United States, but there are some major caveats to that statement. After all, the number of places where you can actually get 5G service is still pretty small.

The number of devices that even support it is even smaller. For now.

You see, things like phones, tablets, and hotspots need special hardware to make use of 5G networks. Rollout for such devices in the U.S. has been pretty slow so far. This will invariably change as the march of time continues, but for now, the list of 5G devices you can buy in this country is fairly small.

Still, if you're truly committed to being a 5G early adopter, you do have options. Here are the 5G-enabled devices you can get that work with major carriers in the U.S.

Phones

Obviously, the thing everyone wants (or is going to want in the next couple of years) is a smartphone that connects to blazing fast 5G networks. Phones, more than anything else, are what we use the most and take with us everywhere. A 5G smartphone could have a bigger impact on your daily life than any other 5G-compatible device, assuming the tech actually works.

The bad news is there just aren't a lot of 5G phones available in the U.S. right now. Samsung got the ball rolling with the release of its Galaxy S10 5G model earlier this summer. Initially a Verizon exclusive, it's also available through Sprint and AT&T. It should be noted, however, that AT&T's support only extends to business and development customers at the moment, not regular consumers.

The most notable other option is the LG V50 ThinQ 5G. That's available through Sprint and Verizon. Both the Galaxy S10 5G and the ThinQ 5G will cost you more than \$1,000, so be prepared to open up the checkbook if you want in on the 5G train at this point in time.

More 5G phones will be available throughout 2019 and beyond, of course. The Samsung Galaxy Note 10+ will have a 5G variant this August, though again, it'll be exclusive

to Verizon at first. It also might not be great for everyone, for reasons outlined by [PCMag](#).

Apple, on the other hand, is widely expected to unveil a [5G-ready iPhone](#) next year.

Samsung was first to market in the U.S. with the Galaxy S10 5G.

Image: JUNG YEON-JE/AFP/Getty Images

Hotspots and other devices

On the non-phone side of things, you're pretty much limited to a couple of [mobile hotspots](#). These devices can pick up a 5G signal in an eligible area and convert it to a fast wi-fi signal for other devices to use. The biggest problems? They tend to be expensive and require a 5G service plan to use.

[AT&T launched](#) a limited version of its 5G network at the end of 2018, accompanied by the Netgear Nighthawk 5G. It costs \$500 with an additional \$70 per month for 5G service. Yeah, we know.

Alternatives from other major carriers aren't much better. Sprint offers a [5G Hub](#) from HTC for \$600, while [Verizon's 5G hotspot](#) is \$650. Those are pretty big prices for devices that have limited use right now, but again, these are for people who want to hop on the bandwagon early and are willing to pay for it.

Aside from hotspots and phones, the Motorola 5G Moto Mod sits in a category of its own. If you have a Moto z3 or z4, you can buy this add-on to give your existing phone 5G capability. It's available through [Verizon](#) and has a retail price of \$349.99, so again, think about how valuable 5G is to your life in 2019.

It doesn't matter if you don't get service

At the end of the day, you shouldn't get any of these devices if you can't use them. You should consult [our guide for 5G coverage](#) in the U.S. to get a basic idea of whether or not you can even access the ultra-fast wireless networks that are available.

It's very possible that 2020 is the year when all of this really starts to matter for the average consumer. So, while you can absolutely get a 5G device today and run laps around those without them, it might be better to wait a little while.

Suyash Yadav (CS3 - 3rd year)

THINKING OUT OF THE BOX (CREATIVE

In a small Italian town, hundreds of years ago, a small business owner owed a large sum of money to a loan-shark. The loan-shark was a very old, unattractive looking guy that just so happened to fancy the business owner's daughter.

He decided to offer the businessman a deal that would completely wipe out the debt he owed him. However, the catch was that we would only wipe out the debt if he could marry the businessman's daughter.

Needless to say, this proposal was met with a look of disgust.

The loan-shark said that he would place two pebbles into a bag, one white and one black. The daughter would then have to reach into the bag and pick out a pebble. If it was black, the debt would be wiped, but the loan-shark would then marry her. If it was white, the debt would also be wiped, but the daughter wouldn't have to marry the loan-shark.

Standing on a pebble-strewn path in the businessman's garden, the loan-shark bent over and picked up two pebbles.

Whilst he was picking them up, the daughter noticed that he'd picked up two black pebbles and placed them both into the bag.

He then asked the daughter to reach into the bag and pick one.

The daughter naturally had three choices as to what she could have done:

- Refuse to pick a pebble from the bag.

- Take both pebbles out of the bag and expose the loan-shark for cheating.

- Pick a pebble from the bag fully well knowing it was black and sacrifice herself for her father's freedom.

She drew out a pebble from the bag, and before looking at it 'accidentally' dropped it into the midst of the other pebbles. She said to the loan-shark;

“Oh, how clumsy of me. Never mind, if you look in-
to the bag for the one that is left, you will be able
to tell which pebble I picked.”


The pebble left in the bag is obviously black, and seeing as the loan-shark didn't want to be exposed, he had to play along as if the pebble the daughter dropped was white, and clear her father's debt.

Moral of the story:

It's always possible to overcome a tough situation throughout of the box thinking, and not give in to the only options you think you have to pick from.

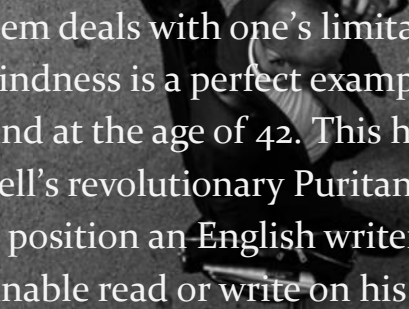
Priyanka Sharma (CS 3rd year)

“On His Blindness” by John Milton (1608-1674)



When I consider how my light is spent
Ere half my days in this dark world and wide,
And that one talent which is death to hide
Lodg'd with me useless, though my soul more bent
To serve therewith my Maker, and present
My true account, lest he returning chide,
“Doth God exact day-labour, light denied?”
I fondly ask. But Patience, to prevent
That murmur, soon replies: “God doth not need
Either man’s work or his own gifts: who best
Bear his mild yoke, they serve him best. His state
Is kingly; thousands at his bidding speed
And post o’er land and ocean without rest:
They also serve who only stand and wait.”

Meaning of the Poem



This poem deals with one’s limitations and shortcomings in life. Everyone has them and Milton’s blindness is a perfect example of this. His eyesight gradually worsened and he became totally blind at the age of 42. This happened after he served in an eminent position under Oliver Cromwell’s revolutionary Puritan government in England. To put it simply, Milton rose to the highest position an English writer might at the time and then sank all the way down to a state of being unable read or write on his own. How pathetic!

The genius of this poem comes in the way that Milton transcends the misery he feels. First, he frames himself, not as an individual suffering or lonely, but as a failed servant to the Creator: God. While Milton is disabled, God here is enabled through imagery of a king commanding thousands. This celestial monarch, his ministers and troops, and his kingdom itself are invisible to human eyes anyway, so already Milton has subtly undone much of his failing by subverting the necessity for human vision. More straightforwardly, through the voice of Patience, Milton explains that serving the celestial monarch only requires bearing those hardships, which really aren’t that bad (he calls them “mild”) that life has burdened you with (like a “yoke” put on an ox). This grand mission from heaven may be as simple as standing and waiting, having patience, and understanding the order of the universe. Thus, this is a great poem because Milton has not only dispelled sadness over a major shortcoming in life but also shown how the shortcoming is itself imbued with an extraordinary and uplifting purpose.

CURRENT AFFAIRS

1. A raging fire has engulfed this rainforest, which contributes to about 20 percent of the earth's oxygen.

Ans. Amazon

Amazon rainforest, the world's largest rain forest, which provides almost 20 percent of the earth's oxygen, has been burning for over 16 days resulting in a major loss of trees and biodiversity.

2. Who among the following was arrested by CBI in relation to the INX Media corruption case?

Ans. P. Chidambaram

Former finance minister and Congress leader P Chidambaram was arrested by the Central Bureau of Investigation (CBI). P Chidambaram is accused of facilitating foreign investment into a television company, INX Media, in 2007, when he was the Finance Minister.

3. US President Donald Trump recently showed interest in buying which nation?

Ans. Greenland

In a surprising move, US President Donald Trump expressed a desire to buy Greenland. The Prime Minister of Denmark Mette Frederiksen, who found the notion to be absurd, declined the offer. US President Donald Trump cancelled his scheduled visit to Denmark in September after the refusal.

4. Prime Minister Narendra Modi announced the creation of the post of Chief in which sector in his Independence Day speech 2019?

Ans. Defence

Appointment of Chief of Defence Staff (CDS) was announced by Prime Minister Narendra Modi in his sixth consecutive Independence Day speech. According to the information provided by PMO, the Chief of Defence Staff will help integrate all three services - the Indian Army, the Air Force and the Indian Navy.

5. Name of the scheme which was recently announced for water conservation and household pipeline supply by PM Modi?

Ans. Jal Jeevan Mission

Prime Minister Narendra Modi announced during his Independence Day speech that the government will launch a Jal Jeevan Mission to bring piped water supply to every house. He also urged the people to come forward and contribute in conserving water resources.

6. Who won the National Film Award 2019 for Best Actress?

Ans. Keerthy Suresh

Keerthy Suresh won the Best Actress award at the 66th National Film Awards for her performance in Telugu film Mahanati.

7. Which film won the national film award 2019 for “Best Feature Film”?

Ans. Hellaro

Gujarati Movie Hellaro won the ‘Best Feature Film’ award at the 66th national film awards 2019.

8. Which nation has launched its own Space Command?

Ans. United States

US President Donald Trump launched the US Space Command on August 29, 2019. Trump announced the establishment of the space command as the newest US military combatant command in a ceremony at the Rose Garden, White House.

9. Which three banks will be merged into a single entity to form the 2nd largest bank of India?

Ans. PNB, OBC & United Bank of India

Finance Minister Nirmala Sitharaman on August 30, 2019 announced the merger of several banks under the Bank Consolidation plan. Punjab National Bank, Oriental Bank of Commerce, United Bank of India will be merged as one single entity. Punjab National Bank will be the anchor bank.

10. Who has become the first IPS officer to be honoured with the prestigious Tenzing Norgay National Adventure Award 2018?

Ans. Aparna Kumar

IPS Officer Aparna Kumar will be honoured with the Tenzing Norgay National Adventure Award 2018 in the ‘Land adventure’ category. Aparna Kumar is a 2002 batch IPS officer from the Uttar Pradesh Cadre. She is the first IPS officer to be honoured with the prestigious Tenzing Norgay Award.

11. Andhra Pradesh government recently announced that the Polavaram Project work will be resumed from November 2019. The project runs on which river?

Ans. Godavari

Andhra Pradesh government announced that the construction works relating to the Polavaram project will taken up again from November 2019, after the rainy season. Under the Polavaram project, a dam is being constructed across the Godavari River in West & East Godavari Districts of Andhra Pradesh.

12. Which Article got revoked alongside Article 370?

Ans. Article 35A

With the revocation of Article 370, Article 35A gets revoked as well. Article 35A defines "permanent residents" of Jammu & Kashmir and grants special rights to them.

13. Name of the former External Affairs Minister and first women chief minister of Delhi who passed away recently.

Ans. Sushma Swaraj

Sushma Swaraj, former external affairs minister and Delhi's first female chief minister, passed away on August 6, 2019. She was 67. Sushma Swaraj was taken to the AIIMS soon after she suffered from a heart attack.

14. Who won the Best Director award at the 66th National Film Awards?

Ans. Aditya Dhar

Uri Director Aditya Dhar won the Best Director award and Ayushmann Khurrana and Vicky Kaushal shared the Best Actor national film award.

15. Pathamadaai Silk Mat has recently granted a GI tag. It belongs to which state?

Ans. Tamil Nadu

The traditional art of weaving pattamadaai silk mat belongs to the Tirunelveli district of Tamil Nadu. Pathamadaai mats have been granted Geographical Indication (GI) status by the trademarks and GI authorities.

16. How many individuals will be scanned under the Human Genome Mapping Project of Government of India?

Ans. 20,000

India is planning to launch its first Human Genome Mapping Project. The project involves scanning of 20,000 Indian genomes (in the next five years) to develop diagnostic tests and effective therapies for treating diseases such as cancer.

17. Which organization has recently launched Jeevan Amar Plan?

Ans. LIC

The Life Insurance Corporation of India (LIC) has launched a new and affordable term insurance plan named the 'LIC Jeevan Amar Plan'. This plan provides greater flexibility to the policyholders as it allows them to choose two death benefit options of their own choice. These two options are - level sum assured and increasing sum assured.

18. Who was conferred the Bharat Ratna honour in August 2019?

Ans. Pranab Mukherjee

President Ram Nath Kovind conferred the Bharat Ratna to former President Pranab Mukherjee and posthumously to Assamese singer Bhupen Hazarika and Bharatiya Jana Sangh leader Nanaji Deshmukh.

19. Which Indian player has become the first-ever to clinch the Badminton World Championship title?

Ans. PV Sindhu

PV Sindhu created history by becoming the first Indian to win gold at BWF World Championship. She earned the title of world champion by crushing Nozomi Okuhara in straight sets of 21-7, 21-7.

20. Which country awarded Prime Minister Narendra Modi 'The King Hamad Or-

der of the Renaissance'?

Ans. Bahrain

Prime Minister Narendra Modi has been conferred the 'King Hamad Order of the Renaissance' by Bahrain's King Hamad bin Isa bin Salman Al Khalifa in recognition of his efforts to strengthen bilateral relations with the key Gulf nation. Narendra Modi, the first Indian prime minister to visit Bahrain, received the honour.

21. Whose 109th birth anniversary was commemorated on August 26, 2019?

Ans. Mother Teresa

Mother Teresa's 109th birth anniversary was commemorated across the world on August 26, 2019. Mother Teresa was born on August 26, 1910.

22. Who was selected for the Outstanding Engineer Award-2019 by Institution of Engineers in India?

Ans. Prabhakar Singh

Prabhakar Singh, Director General, Central Public Works Department (CPWD) has been chosen for elite and prestigious Eminent Engineer Award for Year 2019 by Institution of Engineers (India). This Elite and Prestigious Award shall be conferred to him on the 'Engineers Day' on September 15, 2019.

23. What is the name of new Android version launched by Google on August 22, 2019?

Ans. Android 10

Google on August 23, 2019 announced that the Android Q version will now be known as 'Android 10', breaking its 10-year old tradition of naming Android versions after desserts or sweets.

24. Which nation has unveiled a domestically-built Bavar-373 missile defence system despite sanctions?

Ans. Iran

Iran unveiled a domestically built long-range, surface-to-air missile air defense system on August 22, 2019. Iran revealed the domestically built missile defense system during its National Defense Industry Day.

25. Who became the first-ever Indian tennis player to win a set against Roger Federer?

Ans. Sumit Nagal

In the first-round match of the US Open between India's Sumit Nagal and Swiss ace Roger Federer, the former stunned the tennis legend by claiming the first set 6-4. Nagal had qualified for the US Open main draw and became the youngest Indian in 25 years to qualify for the main draw of a Grand Slam.

26. Which country recently requested the United Nations to call back all peacekeepers from the country by June 2020?

Ans. Sudan

Sudan requested the United Nations Security Council to lift its suspension of troop withdrawals and ensure all peacekeepers leave Darfur by June 2020. Omer Mohamed

Siddig, Sudan's U.N. Ambassador, informed the council that it's time to shift from peacekeeping to peace-building in Darfur.

27. Name the India's first woman Director General of Police (DGP) who passed away recently.

Ans. Kanchan Chaudhary

Kanchan Chaudhary Bhattacharya, the first woman Director General of Police (DGP) of India, passed away recently in Mumbai, Maharashtra. Kanchan was an IPS Officer of 1973 batch. She was appointed as India's first women DGP in 2004 of the Uttarakhand state.

28. The Indian Institute of Petroleum recently established a plant to turn plastic waste into diesel in which city?

Ans. Dehradun

Indian Institute of Petroleum recently established a plant in Dehradun, Uttarakhand to convert waste plastic into diesel. The plant has a capacity to produce around 800 litre of diesel from 1 tonne plastic.

29. Who was elected as the first woman President of Indian National Science Academy (INSA)?

Ans. Chandrima Shaha

Chandrima Shaha was recently elected as the President of Indian National Science Academy (INSA). With this, Shaha became the first woman to be elected as President of INSA. She will serve the post from 2020 to 2022.

30. On July 22, the Rs 978-crore Chandrayaan-2 was launched by India's heavy lift rocket Geosynchronous Satellite Launch Vehicle-Mark III, nick named Isro's Bahubali.

Compiled By: Ms. Sapna Yadav
Chief Editor- Byte E-Magazine

Trello Everything: 28 Ways
Visual Task Management
100 by alison groves @paperkit

12 Amazing Things About
that will make you
amazing



DEPARTMENTAL EVENTS

ABHIVYAKTI 2019



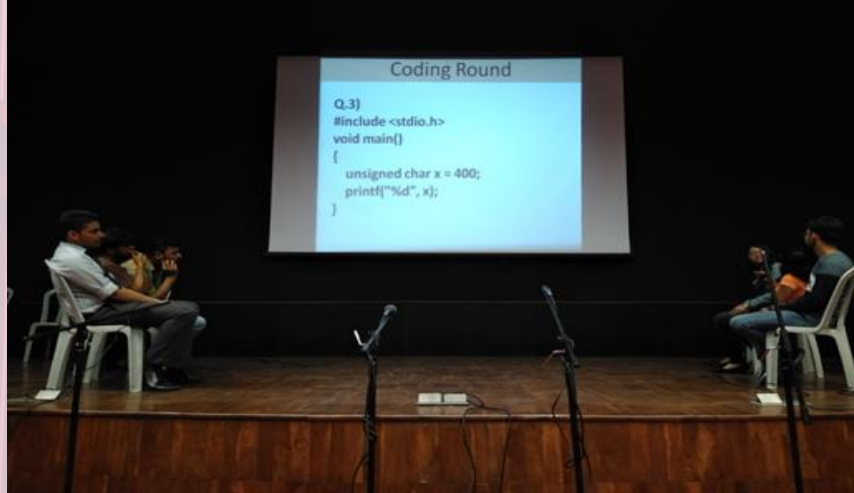
Department of Computer science & Engineering celebrated the five years of successful completion of Byte e-magazine which is being published by the department.

A small techno-cultural event “ABHIVYAKTI 2019” was organized under “THE BYTE Club” on 14th September 2019 at IMS Engineering College.

Byte is being published on monthly basis comprising the student articles on latest technologies, department events, upcoming engineering competitions, recruitment drives etc.

On this occasion the department also recognized & awarded the students for the outstanding achievements in the year 2018-19.

Overall Topper in 1st Year	Ms. Chinmai Goyal
Overall Topper in 2nd Year	Ms. SONAL TANDON
Overall Topper in 3rd Year	Ms. DIVI GUPTA
Best coding skills	Mr. Yash Bansal Mr. Suyash Yadav
Best Student project “Inovision”	Suraj Jaiswal, Utkarsh Upadhyay, Kushagra Srivastava (3rd Yr)
Best Allrounder of the Year	Ms. Tanya Goel



Faculty coordinator:

Ms. Sapna Yadav

Ms. Juhi Choudhary

Student oordintors:

Priyanka Sharma

Suyash Yadav

Mukhar Bajpai

Industrial Visit Report

An Industrial visit to “CETPA Infotech. Pvt. Ltd.”, Sector 2, Noida, Uttar Pardesh-201301 was organized by the Computer Science & Engineering department of IMSEC, Ghaziabad on Friday, 20th September, 2019. A total of 35 computer Science Students from 3rd year and one faculty member visited CETPA Infotech Pvt. Ltd. to interact with the Software Industry to understand current market scenarios, latest most demanding technologies & criteria for selection etc.

Mr. Vikas Kalra, Director, CETPA Infotech. Pvt. Ltd. conducted hands on practical session on Python and Machine Learning for the students. He also explain need and applications of machine learning to the students. He demonstrated different python concepts like GUI programming with tkinter, database programming with JSON, and Game programming with the help of projects. Technical Session was concluded with Question- Answer session. Many of the students asked different questions on scope of Machine learning, data science and python.

Another session was conducted by **Mr. Abhishek Mishra at Cetpa**. He encouraged students to think of Machine Learning and Data scientist as career options and discussed the opportunities in this field.

The visit came to an end at 1.30 p.m. All Students were dropped at college at 3:00 PM.

It was an informative, interesting and a successful visit.



Mr. Abhishek Mishra - discussing Machine learning technologies



Mr Vikas Kalra, Director, CETPA Discussing Python, Machine Learning etc

SPARK 19-20

The annual student project contest Spark-19 on innovative projects was organized jointly by the department of Computer Science & Department of Information Technology was successfully organized on 28th Sep 2019.

Total of 67 projects were displayed by the students. Projects were evaluated by senior faculty members of the college & by the alumni of CS department.

Following students were declared winners from CS Branch

First Prize

Project Title: **GOD'S EYE**

Student Team:

VEDANT SINGH	3 rd Yr
VISHWAJEET TIWARI	3 rd Yr
ZUBAIR AHMAD	3 rd Yr
SUPRATEEK HALSANA	3 rd Yr
SUMIT UPADHYAY	3 rd Yr



Second Prize

Project Title: **EAGLE'S EYE**

SHOAIB ALI	3 rd Yr
SANDEEP KUMAR	3 rd Yr
SHIVAM GUPTA	3 rd Yr
SHIVANSH YADAV	3 rd Yr
SURYAKANT BHARGAVA	3 rd Yr



Third Prize

Project Title: **INTERNET 2.0**

SHIVAM MISHRA	3 rd Yr
SUMIT KUMAR	3 rd Yr
SPARSH GOEL	3 rd Yr
SHRADHA AGARWAL	3 rd Yr





Visit to “MoMagic Pvt. Ltd” on 20th Sep 2019

Industrial visits provide an interface between educational and organizational environment. Industrial orientation is aimed at helping the students in understanding the practical aspects of what students study in classrooms. With this opinion, IMSEC Ghaziabad organized an industry visit to MoMagic 20th- September 2019. A group of students of B.Tech- Computer Science & Engineering-IIIrd Year visited MoMagic, Noida on the day.



Alumni Interaction

Computer Science & Engineering Department organized Alumni Interaction Program on 28/09/2019, from 10.00 AM onwards. Many alumni from different years attended the meet. Departmental alumni coordinator Prof. Atul Kumar and Dr. Pankaj Agarwarl (HOD CSE) welcomed alumni. Various performances including songs, solo and group dances were performed by the current students and enlightened the Alumni with lots of emotion and laughter. The Alumni were invited to the dais to share their experiences.





CodeRaiders v6.3

The **CodeRaiders Club** of Department of Computer Science and Engineering organized a programming contest named **CodeRaiders v6.3** on **20/09/2019 (Friday) from 09:30 pm to 11:00 pm (Online)**. 2nd Year and 3rd year students from all branches participated in this contest. There were total 51 registrations for this contest.

The event was basically to make the students familiar of the coding competitions going on in the current scenario. The event was held on HackerRank and an online portal made by the club where participants submitted their solutions online and they were checked automatically.

Details of Contest:

There were total 18 questions in this round:

- (i) 15 objective questions based on basics of programming languages and latest technologies.
- (ii) 3 coding questions which were taken from different categories of programming language.

Winners of CodeRaiders v6.2

1. Deependra Pratap Singh : CSE-2 (2nd Year)
2. Naman Gupta: CSE-2 (3rd Year)
3. Mayank Aggarwal: IT-1(3rd Year)

They received certificates of merit and exciting prizes for their excellent performance in this competition.

Faculty coordinator:

Ms. Shaili Gupta

Mr. Vivek Jain

Student Coordinators: -

1. Ankit Mishra :CSE-1(3rd Year)
2. Radhika Sharma: CSE-2 (3rd Year)
3. Piyush Verma: CSE-2 (2nd Year)

Congratulations to our Placed Students

S.No.	Roll No.	Name	Company 1	Company 2
1	1614310001	AAYUSHI SINGH	TCS TNQT	Mirketa
2	1614310002	ABHAY MUDGAL	TCS TNQT	
3	1614310004	ABHIJEET KUMAR	TCS TNQT	
4	1614310009	ABHISHEK KUMAR	TCS TNQT	
5	1614310013	ABHISHEK SINGH	VVDN TECHNOLOGIES	
6	1614310015	ADITYA DWIVEDI	TCS codevita	QA INFOTECH
7	1614310016	AGRAJ SINGH	TCS codevita	
8	1614310017	AGRIMA GAUR	TCS TNQT	
9	1614310018	AHMAD AFFAN	TCS TNQT	
10	1614310020	AKAANKSHA GUPTA	TCS TNQT	TO THE NEW
11	1614310025	AKSHANSH MALIK	TCS TNQT	
12	1614310027	AKSHAT BANDOONI	VVDN TECHNOLOGIES	
13	1614310032	AMAN PATEL	TO THE NEW	
14	1614310033	AMAN RASTOGI	TCS codevita	
15	1614310040	ANSHUMAN TIWARI	TCS TNQT	
16	1614310043	ANUJ MISHRA	QA INFOTECH	
17	1614310044	ANURAG SINGH	VVDN TECHNOLOGIES	
18	1614310045	ANUSHKA CHAUHAN	TCS TNQT	
19	1614310048	ARJUN PALIWAL	QA INFOTECH	
20	1614310049	AROHI RASTOGI	VVDN TECHNOLOGIES	
21	1614310050	ARPIT JAIN	TCS TNQT	
22	1614310051	ARYAN SINGHAL	QA INFOTECH	
23	1614310052	ASHI GOEL	Mirketa	
24	1614310054	ASHUTOSH PIPLANI	TCS TNQT	
25	1614310055	ASHUTOSH SINGH	TO THE NEW	
26	1614310058	ASTHA GUPTA	TCS TNQT	
27	1614310059	ASTHA SINGH	TO THE NEW	
28	1614310064	AYUSHI .	Mobilizeaon	
29	1614310065	BHARAT .	TO THE NEW	TCS codevita
30	1614310067	DEEPAK JAIN	TCS codevita	
31	1614310069	DEEPALI SRIVASTAVA	TCS TNQT	TO THE NEW

32	1614310070	DEEPANSHU CHAUDHARY	TCS TNQT	
33	1614310075	DIVYANSH SHEKHAR GAUR	TCS codevita	
34	1614310077	ESHA BANSAL	VVDN TECHNOLOGIES	
35	1614310080	GAURAV SINGH	TCS TNQT	INFOSYS
36	1614310082	GURPREET SINGH UPPAL	VVDN TECHNOLOGIES	-
37	1614310085	HARSHAL GARG	TCS TNQT	
38	1614310086	HARSHIT BANSAL	TCS TNQT	
39	1614310088	HARSHIT GUPTA	TCS TNQT	
40	1614310090	HIMANSHU KUSHWAHA	TCS Codevita	INFOSYS
41	1614310095	HIMANSHU SINGH	TCS TNQT	
42	1614310096	HONEY GOYAL	TCS TNQT	
43	1614310099	KAJAL GARG	Mirketa	
44	1614310101	KAMAL SINGH BISHT	VVDN TECHNOLOGIES	
45	1614310102	KANISHKA THAKUR	VVDN TECHNOLOGIES	-
46	1614310103	KESHAV GUPTA	TCS TNQT	
47	1614310107	KRATI SINGH	Mobilizeaon	
48	1614310110	MANSI RAGHAV	Mobilizeaon	
49	1614310113	MEDHA GUPTA	QA INFOTECH	
50	1614310114	MEGHA DIXIT	QA INFOTECH	
51	1614310116	MIMANSHA SINGH	TCS TNQT	TO THE NEW
52	1614310119	MOHIT KUMAR	TO THE NEW	
53	1614310122	MUSKAN GOEL	TCS TNQT	-
54	1614310123	NAMAN TYAGI	TCS TNQT	
55	1614310129	NIKHIL SHARMA	TCS TNQT	TO THE NEW
56	1614310130	NITISH SINGH	TCS TNQT	
57	1614310131	OMPRAKASH DWIVEDI	TCS TNQT	
58	1614310134	PRAGATI SHARMA	Mirketa	
59	1614310136	PRASHANT KUMAR	TO THE NEW	Mirketa, canary
60	1614310140	PRIYA PATEL	TCS TNQT	TO THE NEW
61	1614310141	PRIYANSH GUPTA	Mobilizeaon	
62	1614310150	RAVI PAL	TCS TNQT	
63	1614310151	RENUKA SINGH	TCS TNQT	
64	1614310160	ROHAN SINGHAL	TCS TNQT	
65	1614310167	SANCHIT SINGHAL	TCS codevita	

66	1614310171	SAPNEET KAUR HORA	TCS TNQT	
67	1614310172	SAURABH SHUKLA	TCS TNQT	
68	1614310173	SHAGUN SAMANT	TCS TNQT	
69	1614310175	SHASHANK SHUKLA	NIIT	
70	1614310178	SHIVAM SINGH	VVDN TECHNOLOGIES	
71	1614310186	SHRISHTI RAGHAV	VVDN TECHNOLOGIES	
72	1614310188	SHUBHAM MISHRA	QA INFOTECH	
73	1614310191	SHWETANK TRIPATHI	VVDN TECHNOLOGIES	
74	1614310194	SIDDHARTH SINGH	TCS TNQT	
75	1614310199	SUJATA MISHRA	TCS TNQT	
76	1614310200	SURAJ DUBEY	TO THE NEW	
77	1614310201	TANYA GOEL	QA INFOTECH	
78	1614310202	TEJAS GUPTA	TCS TNQT	
79	1614310203	TRIPTI GUPTA	TCS TNQT	NIIT
80	1614310204	TUSHAR BANSAL	TO THE NEW	
81	1614310205	UJJWAL KUMAR	TO THE NEW	
82	1614310206	UMANG RASTOGI	NIIT	
83	1614310210	VAISHNAVI VATS	Mirketa	
84	1614310211	VANSH VERMA	VVDN TECHNOLOGIES	
85	1614310212	VARTIKA SINGH	Mirketa	
86	1614310215	VIBHAV CHATURVEDI	TCS TNQT	Mirketa
87	1614310216	VIJAY MITTAL	TCS TNQT	
88	1614310221	VISHAL SHARMA	TCS TNQT	TO THE NEW
89	1614310230	WAQAR AHMAD	TCS TNQT	
90	1614310231	YASH BANSAL	TO THE NEW	INFOSYS
91	1614310232	YASH GUPTA	TCS codevita	
92	1614310233	YASH RAJ TRIPATHI	TCS TNQT	

EXPERIENCE SHARING



Astha Bansal

Hello! My name is Astha Bansal and I will brief you about my journey in IMS.

I was a person with low confidence and having an introvert nature. I was having no idea of how to represent myself. But the 4 year journey taught me how to improve myself in every aspect. The four years of my college life were full of struggles and hard work. Here is the chronological spectrum of my knowledge:

1st year

This year was a very dangerous year as I entered a new zone of my life that is from school to college. I started learning new things like basic programming language “C”(had it in my curriculum).

2nd year

I started loving the college and got into my core branch that is computer science. I learned one more programming language that is “java”.

3rd year

In this year I decided to do something unique and different so I started networking courses-

CCNA (Cisco Certified Network Associate)

4th year

I continued my networking and learned professional version of CCNA-

CCNP (Cisco Certified Network Professional).

But the mettle of your knowledge is tested in the ground “THE PLACEMENT GROUND”

Worked on my self-grooming:

I participated in:-

-Inter and Intra College level Nukad Natak.

-skit competition.

-rangoli competition.

-Various technical competitions.

Here is the experience of all the companies along with the failures faced during my placements.

TCS-ONE OF THE BEST IT COMPANY

S.NO.	ROUNDS	SELECTED
1	APTITUDE	NO

After the rejection from the first round, I became sad and decided to work more on the aptitude.

WIPRO-the company in which everyone wants to get placed

S.NO.	ROUNDS	SELECTED
1	APTITUDE	YES
2	TECHNICAL	NO

After this I decided to work more on aptitude and also practice coding on C.I took help from my friends and teachers. But I never loose heart and kept on working hard.

VMWARE-one of my dream company

S.NO.	ROUNDS	SELECTED
1	APTITUDE	YES
2	GD	YES
3	E MAIL	YES
4	TECHNICAL	YES
5	HR	NO

I was in tears as I slipped down after climbing so many stairs. But my family and teachers played the big role here and kept on motivating me.

HSPP-Honda Siel Power Products

S.NO	ROUNDS	SELECTED
1	TECHNICAL SKILLS	YES
2	HR	YES
3	PI	YES

Finally I was selected in the big MNC “**HONDA**”. That day I realized-

“YOUR HARDWORK NEVER GETS WASTED”

***IMPORTANT TIPS FOR PREPARATION:-**

- 1) Practice aptitude (RS aggarwal is the best book).
- 2) Have a basic concept of 1 or 2 programming languages.
- 3) Just be confident on any 2 subjects in which you are the gunslinger (OS, DBMS, DS).
- 4) Build interesting projects and have a deep knowledge of it.

In a nut shell I would say that do something different from others and be unique. Work harder and harder and always remember slow and steady wins the race.

***For clearing the interviews:**

Aptitude and coding is must.

Have a deep knowledge of your projects.

Questions to prepare for the interview are:

- 1-Tell me something about yourself?
- 2-Where do you see yourself in next 5 years?
- 3-Why should we hire you?
- 4-Questions on your core area

And YES! You have to be very positive and polite.

Now I was a complete different person and was able to heal my negatives.

REMEMBER ONE THING:

Life is hard

There are struggles

TELL YOURSELF:

Everything will work out

Things will get better

You are important

You are worthy of great things

You are loveable

You can be who you really are

You are strong

You can do this! Yes you can!

--ALL THE BEST

CODING-Q

Q1. Output?

```
main()
{
    char *p;
    printf("%d %d ",sizeof(*p),sizeof(p));
}
```

Q2. Output?

```
#define int char
main()
{
    int i=65;
    printf("sizeof(i)=%d",sizeof(i));
}
```

Q3. Output?

```
#define square(x) x*x
main()
{
    int i;
    i = 64/square(4);
    printf("%d",i);
}
```

Q4. Output?

```
main()
{
    int i=400,j=300;
    printf("%d..%d");
}
```

CODING-Q

Q5 Output?

```
void main()
{
    int i=5;
    printf("%d",i+++++i);
}
```

Q6. Output?

```
main()
{
    char not;
    not=!2;
    printf("%d",not);
}
```

Q7. Output?

```
main()
{
    int k=1;
    printf("%d==1 is ""%s",k,k==1?"TRUE":"FALSE");
}
```

Q8. Output?

```
main()
{
    int *j;
    {
        int i=10;
        j=&i;
    }
    printf("%d",*j);
}
```


CODING-Q

Q9. Output?

```
main()
{
    int a[2][2][2] = { {10,2,3,4}, {5,6,7,8} };
    int *p,*q;
    p=&a[2][2][2];
    *q=***a;
    printf("%d..%d",*p,*q);
}
```

Q10 Output?

```
int i=10;
main()
{
    extern int i;
    {
        int i=20;
        {
            const volatile unsigned i=30;
            printf("%d",i);
        }
        printf("%d",i);
    }
    printf("%d",i);
}
```

CODING-Q ANSWERS

ANS 1.

1 2

Explanation: The sizeof() operator gives the number of bytes taken by its operand. P is a character pointer, which needs one byte for storing its value (a character). Hence sizeof(*p) gives a value of 1. Since it needs two bytes to store the address of the character pointer sizeof(p) gives 2.

ANS 2.

sizeof(i)=1

Explanation: Since the #define replaces the string int by the macro char

ANS 3.

64

Explanation: the macro call square(4) will be substituted by 4*4 so the expression becomes $i = 64/4*4$. Since / and * has equal priority the expression will be evaluated as $(64/4)*4$ i.e. $16*4 = 64$

ANS 4.

400..300

Explanation: printf takes the values of the first two assignments of the program. Any number of printf's may be given. All of them take only the first two values. If more number of assignments given in the program, then printf will take garbage values.

ANS 5.

Compiler Error

Explanation: The expression $i+++++i$ is parsed as $i++ ++ + i$ which is an illegal combination of operators.

ANS 6.

0

Explanation (Q6): ! is a logical operator. In C the value 0 is considered to be the boolean value FALSE, and any non-zero value is considered to be the boolean value TRUE. Here 2 is a non-zero value so TRUE. !TRUE is FALSE (0) so it prints 0.

ANS 7.

1==1 is TRUE

Explanation (Q7): When two strings are placed together (or separated by white-space) they are concatenated (this is called as "stringization" operation). So the string is as if it is given as "d==1 is %s". The conditional operator(?:) evaluates to "TRUE".

CODING-Q ANSWERS

ANS 8.

10

Explanation: The variable `i` is a block level variable and the visibility is inside that block only. But the lifetime of `i` is lifetime of the function so it lives upto the exit of main function. Since the `i` is still allocated space, `*j` prints the value stored in `i` since `j` points `i`.

ANS 9.

garbagevalue..1

Explanation (Q9): `p=&a[2][2][2]` you declare only two 2D arrays. but you are trying to access the third 2D(which you are not declared) it will print garbage values. `*q=***a` starting address of `a` is assigned integer pointer. now `q` is pointing to starting address of `a`.if you print `*q` meAnswer: it will print first element of 3D array.

ANS 10.

30,20,10

Explanation: `{` introduces new block and thus new scope. In the innermost block `i` is declared as, `const volatile unsigned` which is a valid declaration. `i` is assumed of type `int`. So `printf` prints 30. In the next block, `i` has value 20 and so `printf` prints 20. In the outermost block, `i` is declared as `extern`, so no storage space is allocated for it. After compilation is over the linker resolves it to global variable `i` (since it is the only variable visible there). So it prints `i`'s value as 10.

Dear Readers,

Editorial Board welcomes articles for the next issue of
"THE BYTE", October 2019.

Please send your articles @:

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THANK YOU



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