

# THE RIGHT CLICK

Issue - 8

CryptX

Jayshree Periwal High School



# CryptX



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## TURING FEST

# Uber



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# TURING FEST

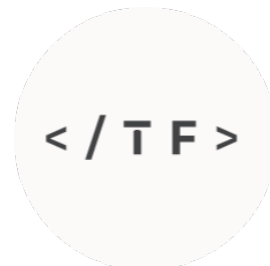
CryptX, the Tech Club of JPHS hosted the school's first ever intraschool Hackathon online in December 2020. Over 200 students participated from Class 6th till 12th. It was a week-long event with 9 competitions, revolving around different topics, like Coding, Website Development and more. It wrapped with 23 winners in total, and 3 top winners, who were the best performers overall.

## TOP PERFORMERS

Nikhil Mathur - 11 Science Block 6

Raghav Goyal - 10 H

Dhruv Gandhi - 9 I



## INDIVIDUAL COMPETITIONS AND WINNERS

### Coding Competition –

1ST - Nikhil Mathur - 11 Science Block 6

2ND - Raghav Goyal - 10 H

3RD - Pulkit Gogia & Arnav Singh & Dakshit Soni - 8 B

### Tech Quiz –

1ST - Yavisht Gupta - 11 Science Block 3

2ND - Medha Bhargava - 9 H

3RD - Aarush Dhamija - 8 F

### Video Editing –

1ST - Dhruv Gandhi - 9 I

2ND - Naman Jain - 7 B

3RD - Aarush Dhamija - 8 F

### Website Development –

1ST - Akarsh Gupta - 12 Science

2ND - Dhruv Gandhi - 9 I

3RD - Aadrik Agarwal - 8 J

### Debate –

1ST - Raghav Goyal - 10 H

2ND – Aamya - 11 Science Block 4

3RD - Abhay Sasthas - 11 Science Block 8

### Online Scavenger Hunt –

1ST - Somya Khandelwal - 11 Science Block 7

2ND - Nikhil Mathur - 11 Science Block 6

3RD - Vanisha Goyal - 11 Science Block 8

### Cybersecurity Competition –

1ST - Ojasva Singh Lavania - 10 B

2ND - Subham Pratap Singh - 9 H

3RD - Anmol Singhal - 7 B

### Presentation Competition –

1ST - Hiya Gupta - 7 E

2ND - Rahil Mahamwal - 7 A

3RD - Yarnav Tanwar - 8 G

# Unpacking the Future

Milind Sharma

Many cool things were announced at this year's first Samsung Unpacked, starting with the show's main stars, the S21 lineup. Samsung launched three phones, the S21 5G, S21+ 5G, and the S21 5G Ultra.

Starting with the little one, S21 5G, this phone has a 6.2" Flat FHD+ screen with a 120Hz refresh rate, IP68 rating, and a fantastic array of cameras. At the back, it has a triple camera setup with 30x zoom, and on the front, a 10MP selfie camera. Samsung has changed the back design for all the phones, but the S21 still has a plastic back, compared to glass on its bigger brothers. It has 8GB RAM, goes up to 256GB of storage, and starts at ₹69999. The S21+ has the same specs as the S21, just with a 6.7" screen and a 4800mAh battery, compared to 4000mAh for the prior with a ₹12000 price increase.

The Ultra is the new flagship and sure has the specs to justify its name. Coming in with a 6.8" Edge Quad HD+ screen with an adaptive 120Hz refresh rate, scrolling is smooth and crispy. At the back, it has a penta-camera setup with 3X and 10X optical zooms. It will last all day with its 5000mAh battery. It rocks 8GB of RAM, goes up to 512GB of storage, and starts at ₹105999. Samsung has also added support for S-Pen for these devices, but the experience is not as good as the Note series.

Now onto the Galaxy Buds Pro. They are a huge step above the older ones for the performance-price ratio. They are the best sounding earphones that Samsung has ever made and have a great fit. The IPx7 water and sweat resistance prevent it from damage in harsh climates. Noise cancellation and improved mic performance make it an excellent choice for the audio enthusiast. These are priced at ₹15990.

The final product and a rather unusual launch is the Galaxy Smart Tag. It is a tracker that has a battery with a runtime of more than a month. It can be attached to your keychain, suitcase, etc., and can help track them during an emergency. This Samsung event was not exceptional, but it was also not bad; we saw the launch of many new phones and technology, which will get better as time progresses. Smart Tag starts at ₹2249 with a plus version priced higher.



## Making Commute Easier

Mudit Yadav

The US government awarded a transportation contract to Uber and Lyft some weeks back, authorizing the ride-hailing companies to provide transportation to up to 4 million federal employees and their families.

The General Services Administration, the procurement arm for the federal government, granted the five-year contract to Uber and Lyft, the companies confirmed. The deal is worth up to \$810 million, though it's unclear how much each company will receive. While individual federal employees have previously been able to use ride-hail services for travel, the new contract allows the companies to formally launch their services within agencies and directly work with officials to promote the service. The contract was awarded to Uber for Business, the ride-hailing company's business-to-business division. "The expansion of our customer base to include government is a natural next step for us, and we're proud to help federal agencies tackle some of the biggest administrative challenges they face," Ronnie Gurion, global head of Uber for Business, said in a statement.

Lyft also hailed the contract as a good sign for the growth of its business. "Lyft already works closely with select agencies, but with this award under our belt, we see an opportunity to be the preferred rideshare partner for many other top federal agencies," a spokesperson said. The contract with Uber and Lyft "modernizes official travel and will make it easier, and cheaper, to use rideshare services for official travel," Federal Acquisition Service Assistant Commissioner for Travel, Transportation and Logistics Charlotte Phelan wrote. "No new apps to download - and no paper receipts to lose."

# This is Malan.

Milind Sharma

“This is CS50, Harvard University’s introduction to the intellectual enterprises of computer science and the art of programming”; this sentence is permanently embedded into the memory of more than 2 million students from all around the world who are either taking the introductory computer science course CS50 on-campus in Harvard or the form of CS50x; a MOOC available on edX, YouTube and many other platforms. The current lead instructor of this course is David J Malan, Gordon McKay Professor of Computer Science at Harvard. He is widely regarded as the most prominent teacher on earth, as this course has 800+ on campus and millions of others online.

Malan enrolled in Harvard, initially studying government but later graduated with an AB in Computer Science. He took CS50 in the fall of 1996, taught by Brian Kernighan at that time, the co-author of the legendary “The C Programming language” book. He later returned to academia after four years of working; he returned to postgraduate studies to complete a Master of Science degree in 2004, followed by a Ph.D. in 2007. His thesis titled “Rapid detection of botnets through collaborative networks of peers” focuses on an architecture that leverages collaborative networks of peers to detect botnets, which are basically many computers on a network infected by malicious software malware.

Apart from CS50, Malan teaches CS100, CS164 (both software engineering courses), CS P-14300, and many other Harvard College courses and in Harvard’s Business, Law, Extension, and Summer school. He was also the founder and chairman of Diskaster. This data recovery firm offered professional recovery of data from hard drives and memory cards, as well as forensic investigations for civil matters. On the side since 2003, he volunteered as an emergency medical technician (EMT-B) for MIT-Emergency Medical Services (EMS). He continues to volunteer as an EMT-B for the American Red Cross. It won’t be exaggerating saying that this man is changing lives through education. Proving a 5-star quality course for free on the internet is no easy deal, but he and his team managed to not only do it, but perfectly like all the CS50 intros!





## Lifting Your Spirits

Keshav Dwivedy

Momentum is a browser extension that opens by default in a new tab and provides a very easy-to-use, view-only user interface. The neat and tidy dashboard contains daily quotes for motivation and nature background, which you can share with others on social media (Twitter). Moreover, it also provides Mantras, which you can utilize for work-ethics and willpower. The background photos, based mainly on nature photography, make you realize the Earth's diverse architecture. The specially curated Mantras and quotes are sure to lift your spirits and make you realize your dreams. There is no secondary counterpart of this extension that can be found on the Web Store, as others do not provide such an excellent facility. Although this is free to use, you can also upgrade to a "Plus" version, which even allows users to put up their background photos and quotes, and much more.

## Your Dose of News

- Elon Musk surpassed Jeff Bezos to become the richest person in the world.
- Hike, the Indian messaging app, shut down on January 15, 2021.
- Tesla cars are coming to India in 2021.
- Musk donated \$5M to Khan Academy.
- Adobe has ended all support for Adobe Flash.
- Nokia has partnered with Google to build cloud-based 5G network.
- Donald Trump has been banned from various social media platforms after the Capitol attack.
- A German programmer forgot the password to his Bitcoin wallet with Bitcoins valued \$220M. He has only 2 guesses left before his coins are locked out and lost forever.
- Razer unveils Project Hazel, a smart mask with RGB lightning.
- Parler website is back online after it was taken down by Amazon.
- PhonePe surpassed Google Pay to become leading UPI app in December.
- Qualcomm launches new Snapdragon 870 5G chipset.
- Microsoft teams up with Cruise on self-driving cars, chips in for \$2 billion investment.



# 25:00

Time to focus.

TODAY

☐ Prepare for quarterly meeting x

"Do or do not. There is no try."



## A Bug That Stopped Internet

Jasraj Johal

Last month on 14th December, Google had an outage that took down several services like Gmail, YouTube, Classroom, and more. Not only that, but AWS (Amazon Web Services) also stopped working along with Google services. The internet was in turmoil, but Google fixed the issue a few hours later. Google came up a few days later, addressing the issue. It turns out that there was a bug in Google Account's authentication system, which caused multiple Google services to stop working. The company has now laid out plans to review, improve, and evaluate its systems to prevent similar issues of this nature.



## The More You Know

- In 1956, 5 megabytes (5MB) of data weighed a ton.
- Russia built a computer that ran on water in 1936.
- Amazon was originally named Cadabra.
- The first word to ever be auto-corrected was "teh."
- Comic Sans is the most hated font in the world.
- Digital music sales surpassed physical sales in 2014.
- There are only 21 million Bitcoins that can be mined in total.

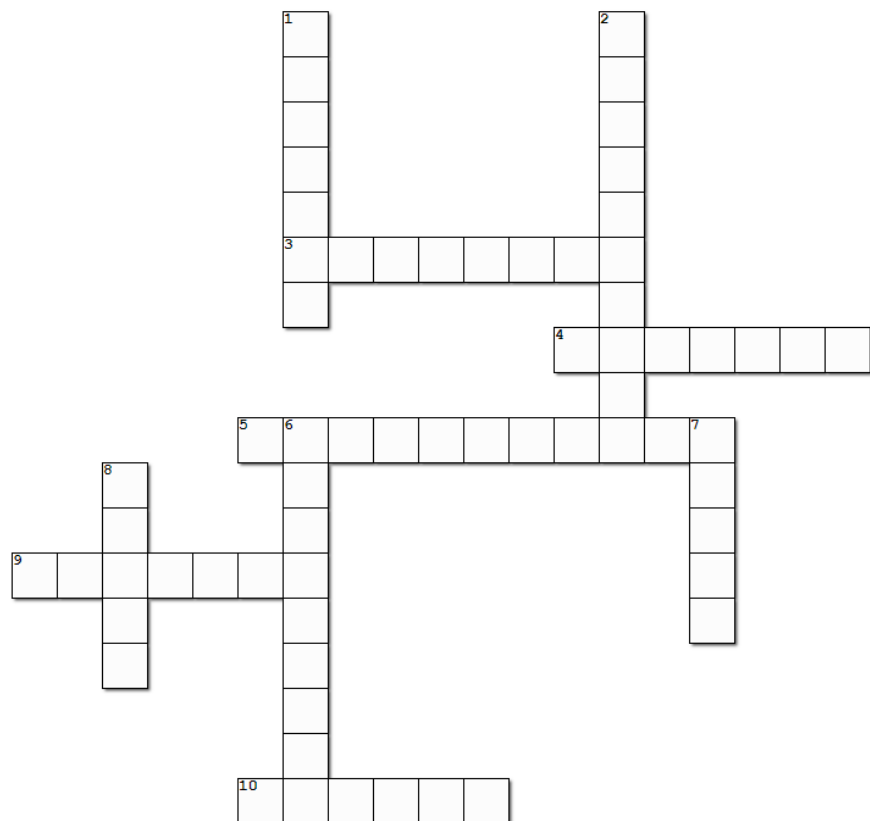
## Programming Crossword

### Down

1. Most common NoSQL database language
2. Data structures which use hash functions and have  $O(1)$  data retrieval
6. Inbuilt Python module which focuses on combinatorics
7. A common L.I.F.O. data structure
8. What does the 'Q' stand for in QBasic?

### Across

3. One of the most common pathfinding/search algorithms
4. Google's SDK to create native apps for iOS and Android
5. Arrays with variable length
9. What is a 'dt \*ptr' in C/C++ (dt stands for Data Type)
10. What programming language does a .cs file extension represent?



## Code it Yourself

Using artificial intelligence, try making a chatbot taking inspiration from Jarvis from the Iron Man series. You can add voice functionality to it by using Google's NLP services and text-to-speech modules.

# WhatsApp vs Internet

Subham Jalan

WhatsApp just updated their privacy policy, and the internet is going mad. Data privacy and protection has become an important issue recently because people have finally realized how much of our data is being collected by tech giants (which is a lot). Companies mainly collect our data for serving personalized ads or improving the app experience. Facebook and Google both have a bad reputation because of this, and no matter how much they deny using any of our "private" data, it's still unethical for most of us.

Facebook owns WhatsApp, and WhatsApp did not collect any of our data, whereas Facebook always did. WhatsApp had come up saying that they will start collecting our data beginning next month, and if a user denies it, they won't be able to use the app. Although after heavy backlash, the plans have been postponed to May 15. The list of data they will gather and its specifics are very long, but in short, they will collect your device information, profile pictures and status, WhatsApp usage and payment details. Not only that, they will follow Facebook's footsteps and introduce ads in WhatsApp, too, if needed. Also, they want to share some of your data with Facebook, businesses, and third parties. With all this, it's natural for users to feel scared and angry. A company cannot invade our privacy and market our data.

Currently, there is a lot of controversy going around this, with WhatsApp introducing individual policies for countries and some countries wanting to either ban WhatsApp or force them to change their plans. Anything can happen, and until then, users should consider switching to Signal and Telegram as alternatives. These apps do not collect our data and are also considered better than WhatsApp in functionality.

## The Team

Milind Sharma (Chief Editor)

Jasraj Johal (Chief Editor)

Subham Jalan (Design Editor)

Mudit Yadav (Writer)

Keshav Dwivedy (Writer)

## You ThinkPad You Win

Keshav Dwivedy

ThinkPad is a line of business laptops, produced initially by International Business Machines (IBM) in 1992 before Lenovo took over it in 2005. Business laptops are famous for their credible and fast performance- the ThinkPad is one such laptop, known for its trademark black-colored metallic body and a red nub mouse.

What makes these machines different from their gaming counterparts is not just the fact that they offer fast performance; but also a very robust design and the scope of reliability. The flagship model of the series is the X1 Extreme [Gen 2]. The 15.6" screen has four variants, the premier being the touch 4K OLED [True Black] alternative, with Dolby Atmos speaker system. The battery lasts an ideal 14 hours and can vary with application usage and settings. The HP equivalent being the ZBook 17 G6, unfortunately, has a 1TB HDD Storage Drive in contrast to an SSD, limiting the speed considerably, thus sometimes resulting in freezes or delayed response. In contrast, Lenovo's storage option is for 2 SSDs, with a maximum of 4TB.

Keeping corporate needs in mind, this laptop has the best security that a company has to offer- a state-of-the-art fingerprint reader, Kensington lock slot, and a physical privacy shutter for the 720p camera, ThinkShutter. The connectivity is simply excellent in terms of the Wi-Fi 6 (802.11 AX) Adapter, Bluetooth 5.0, and multiple ports for ensuring seamless physical integration; the Most Silent and the Most Efficient [Revolutionary] Owl Wing Fan, patented by Lenovo takes care of the bulk of heat generated inside, while the spill-resistant, backlit keyboard guarantees interruption-free working till the last battery percent.

