Volume 04 | Edition 02 | August 2021

Bits & Bytes

An Initiative By

ITSA

Department of Information Technology

#SATYAVACHAN

"Program testing can be used to show the presence of bugs, but never to show their absence"

- Edsger W. Dijkstra

Staff Coordinators:
- Mrs. Sanketi Raut
- Mr. Akshay Agrawal

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Designed by Ms. Anushri Jadhav, Ms. Lavanya Deivakarunathan & Ms. Maliha Momin

Microsoft Acquires CloudKnox Security

Helping organizations strengthen cloud security and Zero Trust. At Microsoft, we are committed to supporting organizations in their digital transformation and helping them to deliver secure and seamless experiences. Since IT modernization often spans multiple clouds, cloud security and identity are top of mind for most of our customers. Modern identity security needs to protect all users and resources consistently across multi-cloud and hybrid cloud environments. Today, Microsoft is taking a significant step toward this goal with the acquisition of CloudKnox Security, a leader in Cloud Infrastructure Entitlement Management (CIEM). CloudKnox offers complete visibility into privileged access. It helps organizations right-size permissions and consistently enforce least-privilege principles to reduce risk, and it employs continuous analytics to help prevent security breaches and ensure compliance. This strengthens our comprehensive approach to cloud security.

As organizations adapt to hybrid work and more and more cloud services are deployed, new service entities that collaborate and exchange data without human interaction, such as virtual machines and containers, are proliferating. The growth of these service accounts and identities and their increasing volumes of permissions, privileges and entitlements exposes organizations to new attack vectors. Left in blind spots or uncontrolled, these permissions leave business critical systems open to infiltration and disruption. High-profile breaches demonstrate how quickly bad actors can move laterally by exploiting misappropriated privileged credentials.

While organizations are reaping the benefits of cloud adoption, they still struggle to assess, prevent, enforce and govern privileged access across hybrid and multi-cloud environments. Even if they piece multiple siloed systems together, they still get an incomplete view of privileged access. Traditional Privileged Access Management and Identity Governance and Administration solutions are well suited for on-premises environments, however they fall short of providing the necessary end-to-end visibility for multi-cloud entitlements and permissions. Neither do they provide consistent identity lifecycle management or governance in multi-cloud and cloud-native environments.

In January, when I shared the five identity priorities for 2021, I stressed the importance of a Zero Trust security approach that verifies explicitly, grants least privileged access and always assumes breach — with identity as your first line of defense.

As the corporate network perimeter disappears, it's crucial to establish a strong cloud identity foundation, so you can enforce least privileged access to protect business-critical systems while improving business agility. We're committed to making it easier to enforce least privileged access for all user and workload identities.

The acquisition of CloudKnox further enables Microsoft Azure Active Directory customers with granular visibility, continuous monitoring and automated remediation for hybrid and multi-cloud permissions. We are committed to providing our customers with unified privileged access management, identity governance and entitlement management including:

- Automated and simplified access policy enforcement in one integrated multi-cloud platform for all human and workload identities.
- The widest breadth of signal-enabling, high-precision machine learning-based anomaly detections.
- Seamless integration with other Microsoft cloud security services, including Microsoft 365 Defender, Azure Defender and Azure Sentinel.

Our acquisition of CloudKnox, like our recent acquisition announcements on RiskIQ and ReFirm Labs, shows our focus and execution in acquiring, integrating and expanding the strongest defenses for our customers — from chip to cloud — backed by more than 3,500 defenders at Microsoft and the more than 8 trillion security signals we process every day. Microsoft is uniquely positioned to help empower and defend the future of hybrid work and multi-cloud environments, providing essential visibility, control and monitoring Zero Trust demands.

We're excited to bring the CloudKnox team and technology to Microsoft and our joint customers and look forward to their contributions. We'll share more information as we integrate CloudKnox with Microsoft's identity, security and compliance solutions.

Source: https://blogs.microsoft.com/blog/2021/07/21/microsoft-acquires-cloudknox-security-to-offer-unified-privileged-access-and-cloud-entitlement-management/

- MRS. SANKETI RAUT
(Assistant Professor)

Want to Start a Freelance Career? Here is a Quick Guide for IT Professionals

1. Major Considerations to Kick Start your Freelance Career:

Amid the pandemic, freelancing work has taken the front seat and professionals are now considering it as a major career option. This is not just to earn more money but to upskill as well for employees, students, and unemployed individuals. Hence, here are a few things that one must consider before deep diving into a freelance career.

https://content.techgig.com/5-major-considerations-to-kickstart-your-freelance-career/articleshow/84406725.cms

2. Top In-Demand Freelancing Jobs for Remote Workers:

More companies are hiring freelancers to maintain their budgets. The demand for gig workers is increasing and has put India at the 23rd position worldwide. Here are some of the in-demand freelancing jobs that professionals can watch out.

https://content.techgig.com/top-in-demand-freelancing-jobs-for-remote-workers/articleshow/81346066.cms

3. Freelance Jobs for Artificial Intelligence Professionals:

Are you an Artificial Intelligence expert who wants to start a career as a freelancer? Well, AI is gaining momentum in the market that has reduced manual labour and increased the revenue of businesses. It is best to know the in-demand AI jobs that professionals can explore.

https://content.techgig.com/5-freelance-jobs-for-artificial-intelligence-professionals/articleshow/84348496.cms

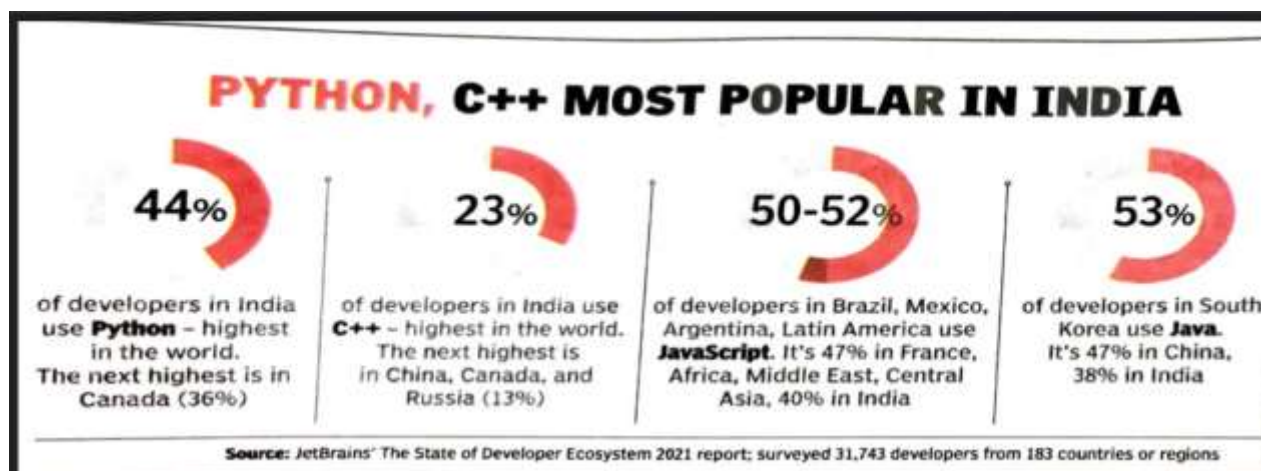**4. Tips to Become a Freelance Software Developer:**

Software development demand is skyrocketing in the market with companies working remotely that has made professionals know how to start their career as a freelancer. The navigation of the career choice as a freelancer is not easy and requires proper layout and plans.

https://content.techgig.com/5-tips-to-become-a-freelance-software-developer/articleshow/84234639.cms

Source: https://content.techgig.com/want-to-start-a-freelance-career-here-is-a-quick-guide-for-it-professionals/articleshow/84475051.cms

- MR. AKSHAY AGRAWAL
(Assistant Professor)

Languages Popular In India

PYTHON, C++ MOST POPULAR IN INDIA

44% of developers in India use **Python** – highest in the world. The next highest is in Canada (36%)

23% of developers in India use **C++** – highest in the world. The next highest is in China, Canada, and Russia (13%)

50-52% of developers in Brazil, Mexico, Argentina, Latin America use **JavaScript**. It's 47% in France, Africa, Middle East, Central Asia, 40% in India

53% of developers in South Korea use **Java**. It's 47% in China, 38% in India

Source: JetBrains' The State of Developer Ecosystem 2021 report: surveyed 31,743 developers from 183 countries or regions

- MRS. YOGITA MANE
(H.O.D. - I.T.)

Home Minister Operationalized Cyber Crime Helpline

Union Home Minister Amit Shah made the national Helpline 155260 and Reporting Platform to prevent financial loss due to cyber-crime operationalized on Thursday. The move is yet another step towards Narendra Modi government's commitment to providing a safe and secure digital payments eco-system.

The National Helpline and Reporting Platform provide a mechanism for victims of cyber fraud to report such incidents and avoid losing their hard-earned money.

The Helpline went live on April 1st of this year. The Indian Cyber Crime Coordination Centre (I4C) of the Ministry of Home Affairs has made the Helpline 155260 and its Reporting Platform operational, with active support and cooperation from the Reserve Bank of India (RBI), all major banks, Payment Banks, Wallets and Online Merchants.

I4C created the Citizen Financial Cyber Fraud Reporting and Management System in-house to link Law Enforcement Agencies, Banks, and Financial Intermediaries. It is now used in conjunction with 155260 by seven states and union territories (Chhattisgarh, Delhi, Madhya Pradesh, Rajasthan, Telangana, Uttarakhand, and Uttar Pradesh), accounting for more over 35% of the country's population. The rollout of pan-national coverage in the other states is currently underway to limit the flow of money stolen off by fraudsters.

Helpline 155260 has saved more than Rs 1.85 crore of scammed money from reaching the hands of fraudsters in just two months since its soft launch, with Delhi and Rajasthan saving Rs 58 lakh and Rs 53 lakh, respectively.

By exploiting new-age technologies for sharing online fraud-related information and taking action in near real time, the facility empowers both banks and police. The loss of fraudulent money in online cheating instances can be halted by pursuing the money trail and halting its further flow before the fraudster takes it out of the digital environment.

How does the Helpline Work:

1. Victims of cyber fraud call on Helpline no. 155260, which is manned and operated by the concerned State Police.

2. The Police operator notes down the fraud transaction details and basic personal information of the caller and submits them in the form of a Ticket on the Citizen Financial Cyber Frauds Reporting and Management System.

3. The Ticket gets escalated to the concerned Banks, Wallets, Merchants and so on, depending on whether they are the victim's bank or the bank/wallet in which the defrauded money has gone.

4. An SMS is also sent to the victim with an acknowledgement number of the complaint with direction to submit complete details of the fraud on the National Cybercrime Reporting Portal (https://cybercrime.gov.in/) within 24 hours, using the acknowledgement number.

5. The concerned Bank, which can now see the ticket on its dashboard on the Reporting Portal, checks the details in its internal systems.

6. If the defrauded money is still available, the Bank puts it on hold, i.e., the fraudster cannot withdraw the money. If the defrauded money has moved out to another Bank, the Ticket gets escalated to the next Bank to which the money has moved out. This process is repeated until the money is saved from reaching into the hands of the fraudsters.

All of the major public and private sector banks are currently on board with the Helpline and its Reporting Platform. It is also linked to all major wallets and retailers, including Paytm, PhonePe, Mobikwik, Flipkart, and Amazon.

The Helpline and Reporting Platform's success may be gauged by the fact that cheated money has been stopped from reaching fraudsters on multiple instances, even after it has been shifted by the cheats to five other banks to obscure the trail.

*Source***:**   https://www.the420.in/home-minister-amit-shah-operationalised-cyber-crime-helpline-155260-to-report-and-prevent-cyber-fraud/

- MRS. YOGITA MANE
(H.O.D. - I.T.)

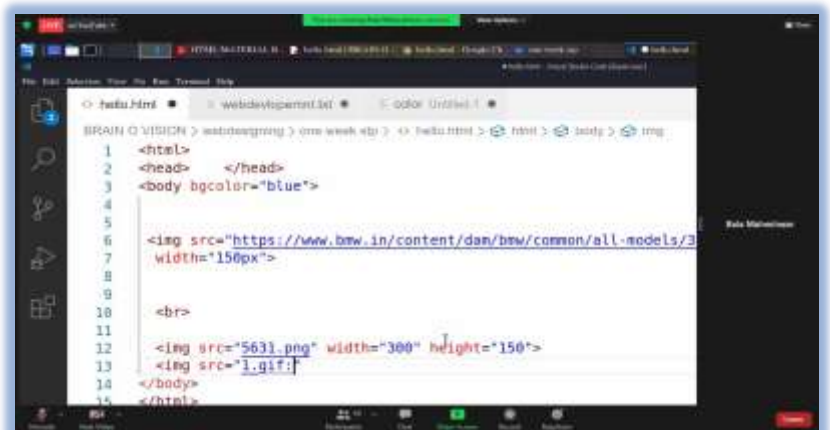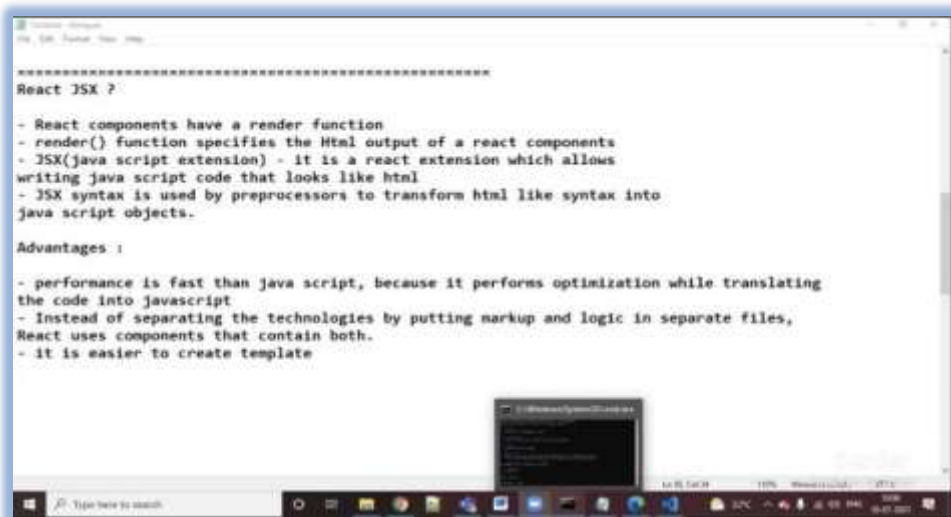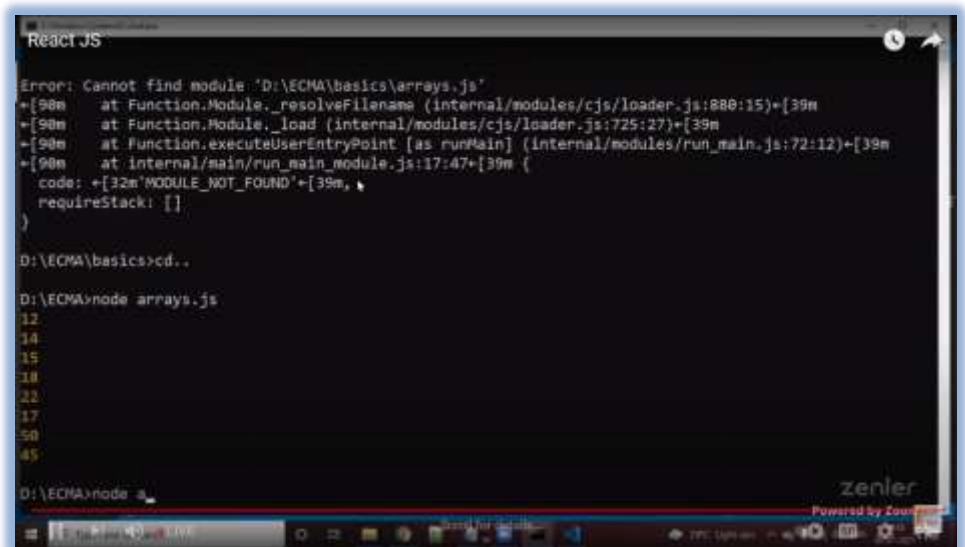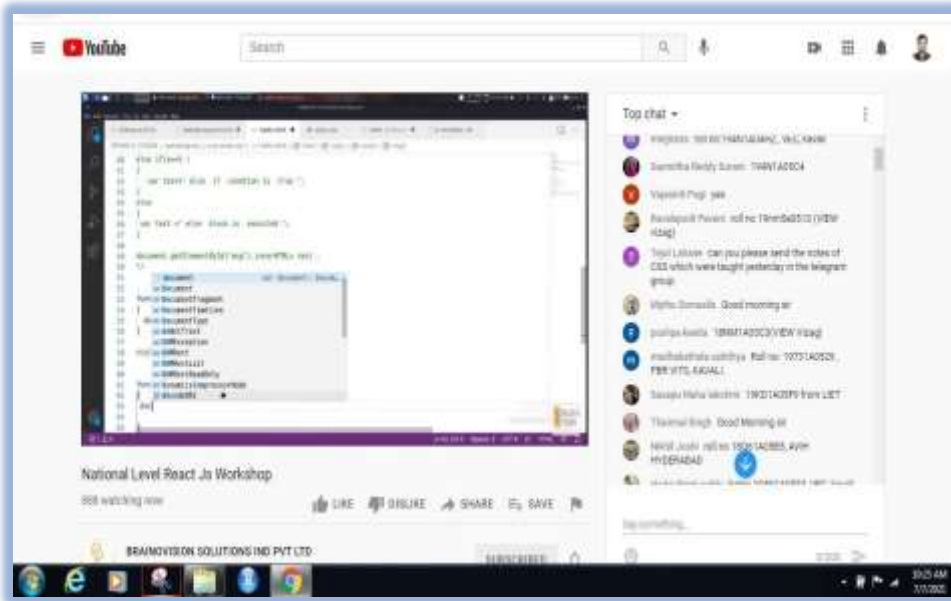# Departmental Event

<u>6-Day National Online Workshop on ReactJS</u>

- A 6-Day National Online Workshop on ReactJS was organized by Department of IT on 5th July 2021. It was conducted from 5th July 2021 to 10th July 2021 through YouTube Live. There were total 240 registered number of participants. Chief guest Ms. Sunanda Gundavajhala was welcomed by the team of Brainovision. Speaker was Mr. Mahesh and Mr. Madhu throughout the whole workshop.

The learning outcome through this workshop was HTML CSS and JavaScript, ReactJS, React Components, FLUX, React Server Integration and Development, ECMA Script. Total 40 host colleges participated in the workshop, later a valedictory function was conducted to thank the speakers, team of Brainovision for making the session informative and participants for their patience.

<u>Some of the Glimpses</u>:

National Level React Js Workshop

```
React JSX ?

- React components have a render function
- render() function specifies the Html output of a react components
- JSX(java script extension) - it is a react extension which allows
writing java script code that looks like html
- JSX syntax is used by preprocessors to transform html like syntax into
java script objects.

Advantages :

- performance is fast than java script, because it performs optimization while translating
the code into javascript
- Instead of separating the technologies by putting markup and logic in separate files,
React uses components that contain both.
- it is easier to create template
```

AURORA 2K21 WINNERS

AURORA is a *Sports and Cultural Fest of UCoE* which is celebrated every year with great enthusiasm. This year as well it was conducted from 5th - 10th July 2021, but *Digitally*! It had 7 sports and 10 cultural events in all.

We CONGRATULATE each and every Winners and Participants of "AURORA 2021" !!!

SPORTS WINNERS

SR. NO.	STUDENT'S NAME	EVENT NAME	POSITION
1.	Bhavesh Dalvi	Football Freestyle	1st
2.	Shaili Shah	Quiz	
3.	Anuj Hegishte	Chess	2nd
4.	Kaustubh Latake	Quiz	
5.	Nency Batada	Tennis Clash	
6.	Rushabh Mistry	8 Ball Pool	

CULTURAL WINNERS

SR. NO.	STUDENT'S NAME	EVENT NAME	POSITION
1.	Rohan Surti	Painting	1st
2.	Shaili Shah	Rangoli	
3.	Shaili Shah	Collage	
4.	Vedangi Shewale & Sonia Bagalkot	Group Dance	
5.	Anushka Agarwal	Storytelling	2nd
6.	Maliha Momin	Mehandi	
7.	Samiksha Nijai	Painting	
8.	Samiksha Nijai	Rangoli	
9.	Shaili Shah	Poster / Cartooning	
10.	Shaily Verma	Solo Singing	
11.	Vishwajit Singh	Stand-Up Comedy / Mimicry	

ACADEMIC TOPPERS (2020-2021)

SE TOPPERS

9.87
NEHA SURATKAL

9.83
HET VIKAM

9.78
HARSH MAKWANA

TE TOPPERS (CGPI)

9.74
MOHINI KATHROTIYA

9.67
ANIRBAN RUDRA

9.63
ZEBA QURESHI

BE TOPPERS (CGPI)

8.79
APARNA SUDHIR

8.76
DHRUV PATEL

8.52
SIDDHANT PAWAR

10
JINAL PADHIAR

10
JAIVAL PATEL

10
KAUSTUBH LATAKE

10
DARPAN RAUT

10
PAYAL CHAUDHARY

10
MANASHVINI YADAV

10
SATISH AOUDICHYA

10
SONIA BAGALKOT

10
SHAILI SHAH

10
FAISAL KHAN

10
RAHIL MEHTA

10
ZEBA QURESHI

BE TOPERS (SGPI)

10
AISHWARYA TAWDE

10
APARNA SUDHIR

10
AVIK GHOSH

10
ARYAN PATEL

10
YASH PIMPLE

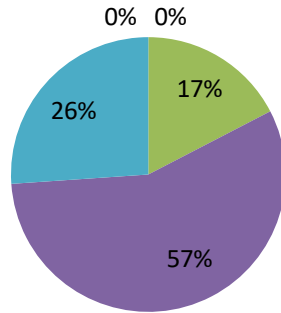**10**
NISARG RAJPURA

10
ABHILASHA VARMA

10
SHAILY VERMA

CONGRATULATIONS!!

TO ALL THE TOPPERS

B.E. IT BASED ON CGPI

Legend: ■ 10 ■ 9 to 9.99 ■ 8 to 8.99 ■ 7 to 7.99 ■ less than 7

- 0%
- 0%
- 17%
- 26%
- 57%

B.E. IT BASED ON SGPI

Legend: ■ 10 ■ 9 to 9.99 ■ 8 to 8.99 ■ 7 to 7.99 ■ less than 7

- 1%
- 0%
- 0%
- 12%
- 87%

T.E. IT BASED ON CGPI

Legend: ■ 10 ■ 9 to 9.99 ■ 8 to 8.99 ■ 7 to 7.99 ■ less than 7

- 0%
- 16%
- 23%
- 29%
- 32%

RESULT ANALYSIS (2020-2021)

T.E. IT BASED ON SGPI

■ 10 ■ 9 to 9.99 ■ 8 to 8.99 ■ 7 to 7.99 ■ less than 7

Pie chart segments: 0%, 7%, 16%, 15%, 62%
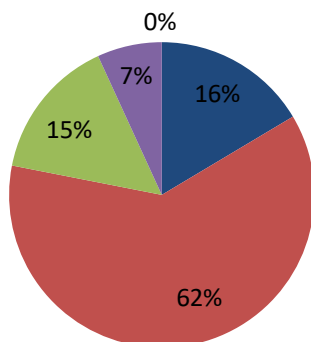
STUDENT'S PLACEMENT

Sr. No.	Name of the student	Company	Package (in LPA)
1.	Tejas Mate		
2.	Tejashree Mhatre		
3.	Abhilasha Varma	Pentagon Space	5 LPA
4.	Bhavik Saglani		
5.	Sujal Upadhyay		

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