

ACS



Rebooted

We Didn't Just Execute — We Rebooted the Experience

VOL. 01

Our ACS Journey Version 2024/25



Association Of Computing Students
University of Sri Jayewardenepura



Association Of Computing Students

University of Sri Jayewardenepura



“ ACS Executed Successfully ”

ACKNOWLEDGEMENT

We, the Executive Board of the Association of Computing Students (ACS)24/25, wish to express our heartfelt gratitude to all those who contributed to the successful publication of this magazine and to the impactful year we've had as a team.

First and foremost, we extend our sincere appreciation to our respected Faculty Dean, Association Adviser, and Senior Treasurer for their unwavering support, guidance, and encouragement throughout the year. Your trust and mentorship have been instrumental in helping us pursue innovation and excellence in all our initiatives.

We are equally grateful to our President, Secretary, and fellow Executive Board members for their remarkable dedication, teamwork, and leadership in organizing and executing our core projects—CodeFuse, EduACS, TechXplore, and Did You Know? Each of these initiatives has left a meaningful imprint on the student community and beyond.

Our deepest appreciation also goes to all the volunteers, speakers, writers, and participants who played vital roles in turning our ideas into action. Your energy, passion, and commitment gave life to every seminar, competition, and publication we delivered this year.

Last but not least, we thank our vibrant student community for your enthusiasm, engagement, and continued support. You are the true driving force behind everything we do.

This magazine is a reflection of our collective journey, and we hope it inspires future generations of ACS to dream bigger, lead stronger, and create boldly.

With gratitude,

The Executive Board 24/25,

Association of Computing Students (ACS),

University of Sri Jayewardenepura.

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FROM THE PATRON

It gives me great pleasure to extend my warmest congratulations as the patron of the Association of Computing Students (ACS) on their launch of the very first volume of ACS Rebooted. This inaugural edition is a significant milestone that not only captures the dynamic spirit of ACS membership but also highlights the dedication, creativity, and commitment of talented young individuals of ACS over the past year.

The initiatives featured in this volume; **CodeFuse'24**, **TechXplore**, **EduACS**, and **Did You Know?** are testaments to the vibrant culture of innovation, leadership, and service fostered within the Faculty of Computing as well as to the connected external societies. Each program reflects a strategic blend of academic rigor, industry relevance, and social responsibility, particularly within the context of IT/BPM and related sectors. It is especially commendable to see Computing Undergraduates engaging in initiatives that go beyond the classroom and shaping their future as both professionals and responsible citizens of our motherland.

By empowering peers to think critically, collaborate meaningfully, and contribute to society, ACS continues to build a strong, future-ready community. I am confident that this magazine will serve not only as a chronicle of accomplishments but also as a source of inspiration for current and future members of ACS, as well as for all connected communities.

I extend my heartfelt appreciation to the ACS leadership and all those who contributed to these endeavors. May ACS Rebooted continue to thrive and evolve, just as the world of computing does; boldly, purposefully, and with lasting impact to our society.

With best wishes for continued success,

PROF. PRASAD M. JAYAWEERA
DEAN OF FOC |PATRON| ACS 2024/25



FROM THE ADVISOR

It is with immense pride and joy that I extend my heartfelt wishes to the Association of Computing Students (ACS) on the release of this remarkable edition of the ACS e-Magazine. As the Advisor of this vibrant association, I have had the privilege of guiding a group of passionate, capable, and forward-thinking individuals who continue to set the bar ever higher.

The ACS e-Magazine is more than just a publication. It is a mirror that reflects the creative energy, academic curiosity, and combined efforts of the student body at the Faculty of Computing. In its pages, we see the growth of an association that has rapidly evolved into a cornerstone of student engagement and leadership within the faculty.

The past year has witnessed the launch of several outstanding initiatives. One of my personal favorites **EduACS**, the association's academic empowerment arm, has provided a forum for knowledge exchange and peer learning, bridging gaps and assisting countless school students in their educational path.

TechXplore, a standout collaborative series, successfully introduced students to cutting-edge concepts and industries like Agentic AI, sparking new curiosity and conversations around emerging technologies. **CodeFuse**, our in-house competitive programming initiative, also has built a dynamic community of problem solvers and cultivating critical thinking and coding excellence.

Did You Know?, adds a delightful blend of bite-sized knowledge and tech trivia that effortlessly enriches our students' daily feed with insights that often go beyond lecture halls.

It is also essential to pause and acknowledge the roots from which this journey began while we celebrate these milestones. The formation of ACS was not a mere coincidence. It was the result of vision, unity, and bold initiative by a dedicated group of students who served as the very first set of office bearers. Their legacy is one of perseverance, leadership, and passion for computing. With gratitude and admiration, I applaud their efforts in laying the foundation of what is now a thriving community of computing students. A home for ideas, talent, transformation and improvement.

To all current members, readers, and contributors, you are what make this journey possible. I encourage you to continue challenging norms, exploring possibilities, and creating impact. May ACS soar to even greater heights in the years to come.

DR. D.G.N.D. JAYARATHNA
ADVISOR | ACS 2024/25



FROM THE PRESIDENT

The idea of the Association of Computing Students was born from a simple question. "What if we had a space where our computing undergrads could truly connect, grow, and lead as better industry-oriented professionals?" What began as a vision shared by a handful of passionate individuals is today the vibrant, thriving subject association within the Faculty of Computing. The journey from drafting the constitution to holding our very first general meeting was not always smooth but every challenge was a step toward something greater.

Today, as we present the first edition of the **ACS e-Magazine**, I see it as more than a publication. It's a reflection of how far we've come and more importantly, the direction we're heading.

This past year has been a defining chapter in the ACS story. We launched **EduACS**, a platform dedicated to uplifting our academic community through collaborative learning. Through **TechXplore**, we explored the future of technology with experts and peers alike, including sessions that introduced IoT, Cybersecurity and other groundbreaking trends. With **CodeFuse**, we celebrated logical thinking, problem-solving, and the adrenaline of competition. While **Did You Know?** kept our minds engaged with quick, intriguing facts that sparked curiosity every single week. Each initiative carried out the ACS spirit. Student-led, purpose-driven, and community-focused.

But none of this would have been possible without the trailblazers who lit the first spark. The very first set of office bearers. My team of fellow undergraduates who didn't wait for a moment to come, but created one! They deserve special recognition. Their commitment and leadership laid the foundation for everything we are building today. We walked the path we together courageously carved.

To the Chief Editor behind this magazine, you've captured the essence of ACS with creativity and clarity. And to every student reading this, this association exists for you and because of you. Let's keep dreaming, building, and moving forward, and as always, together!

Here's to growth, to learning, and to many more stories to tell.

Warm regards,

Ganindu Deshapriya

GANINDU DESHAPRIYA
PRESIDENT | ACS 2024/25



FROM THE SECRETARY

It is with great pride and heartfelt enthusiasm that I welcome you to **ACS Rebooted**, a reflection of our journey, resilience, and renewed vision. As the Secretary of the Association of Computing Students, I am incredibly honored to be part of a team that has worked tirelessly to elevate ACS into a recognized and respected name both within our university and in the wider industry.

This past year has been a transformative chapter for ACS. Through dedication, collaboration, and a shared passion for innovation, we have reignited the spirit of our association, strengthened our presence, and set a new benchmark for excellence. The milestones we have achieved are not just wins for ACS, but for every member, partner, and supporter who believed in our vision.

Let us take a moment to celebrate how far we've come from ambitious beginnings to becoming a thriving platform that empowers students, fosters talent, and bridges academia with industry. Congratulations to the entire ACS family for this outstanding success!

As we move forward, may this magazine serve as a symbol of our growth and a reminder that with unity and commitment, anything is possible.

With pride and gratitude,

Vihanga Rathnayake

VIHANGA RATHNAYAKE
SECRETARY | ACS 2024/25



As I reflect on this incredible journey with the Association of Computing Students, I am honored to present this magazine—our digital chronicle of an unforgettable year. What you hold in your hands (or view on your screen) is not just a recap, but a tribute to vision, hard work, and the unyielding spirit of our student community.

“We Didn’t Just Execute — We Rebooted the Experience”

From reimagining how we connect students to industry through **TechXplore**, to sparking curiosity and outreach with **EduACS**, to fueling innovation through **CodeFuse**, and nurturing tech-driven minds via **Did You Know?**—this was a year of bold steps, creative risks, and meaningful growth.

This magazine is a celebration of everyone who believed in that journey; every volunteer, contributor, mentor, and participant who turned ideas into impact.

To our readers: thank you for being a part of this. May these pages inspire you to keep exploring, keep building, and keep believing in the power of student-led change.

With pride and gratitude,

Malanka Tharula

MALANKA THARULA
CHIEF EDITOR | ACS 2024/25



WHO WE ARE?



ACS – ASSOCIATION OF COMPUTING STUDENTS

The Association of Computing Students (ACS) stands as a unifying platform for all students within the Faculty of Computing at the University of Sri Jayewardenepura. It was formed with a strong vision to foster an environment where undergraduates could grow together, share knowledge, and develop into future-ready professionals with a solid understanding of both academic and industry landscapes.

Since its inception, ACS has evolved into more than just a student body; it has become a hub of innovation, leadership, and collaboration. Through numerous student-led initiatives, the association has promoted learning, encouraged participation in emerging tech trends, and created opportunities for personal and professional development. Whether it's through interactive knowledge-sharing sessions, competitions that test problem-solving skills, or platforms that support academic excellence, ACS continues to be a driving force behind the student community's growth and unity.





OUR VISION

Empowering undergraduates to emerge as leaders in computing, ACS envisions a future where students embark on a transformative journey. Guided by a commitment to excellence, we illuminate the path, connecting them with real-world computing experiences, cultivating top-tier technical and professional skills, and fostering a community of innovative and proficient professionals.



OUR MISSION

Cultivate a community of innovative and proficient individuals equipped with advanced technical and professional skills, ensuring a transformative journey for every member of the "Association of Computing Students".



EDITION 1.0

TECHXPLORE



In a world where knowledge runs deep, TechXplore dares to dive beneath the surface.

Like a lone explorer venturing into the vast ocean of technology, we journey through currents of innovation, discovery, and connection.

Organized by the Association of Computing Students, TechXplore is more than a seminar series — it's a gateway where academia meets industry, where curiosity meets clarity, and where passion meets purpose. Welcome to TechXplore: where minds dive deep and emerge transformed.

What is techXplore?

TALKS, TRENDS AND TRANSFORMATION

TechXplore is a pioneering initiative launched by the Association of Computing Students at the University of Sri Jayewardenepura. It's designed to bridge the gap between academic learning and industry practice through a dynamic seminar series that explores emerging technological domains. The series brings together students, professionals, and tech enthusiasts through both in-person and online sessions, fostering innovation, learning, and career exploration.



This initiative was brought to life under the leadership of Chairperson Aashinshana Weerakoon, Project Secretary Methuli Mewanya, and Project Treasurer Dulith Perera. The design and marketing team, led by Tharindu Nimsara, played a key role in shaping the visual identity and online presence of the event, while the coordinating team, guided by Anushka Rodrigo, ensured seamless planning, communication, and execution behind the scenes. The dedication, creativity, and collaboration of both teams were instrumental in the smooth delivery and overall success of TechXplore 1.0.





Session 01-The First Step to Cybersecurity

TechXplore 1.0 began on a high note with an insightful panel discussion featuring Mr. Lakmal Embuldeniya, President of ISACA Sri Lanka and Co-founder/CXO of Henkei Corporation, and Mr. Samagi Rajakaruna, Public Liaison Officer of ISACA Sri Lanka and COO of Henkei Corporation. The session delved into essential cybersecurity concepts, current challenges, and real-world industry practices. It not only introduced participants to the field but also set a strong and engaging tone for the sessions that followed.

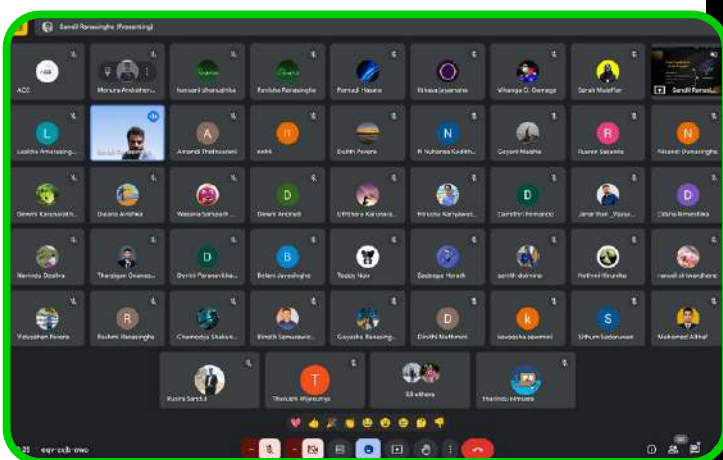
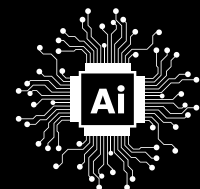


Date: 4th December 2024

Venue: University of Sri Jayewardenepura



Session 02- Introduction to Agentic AI

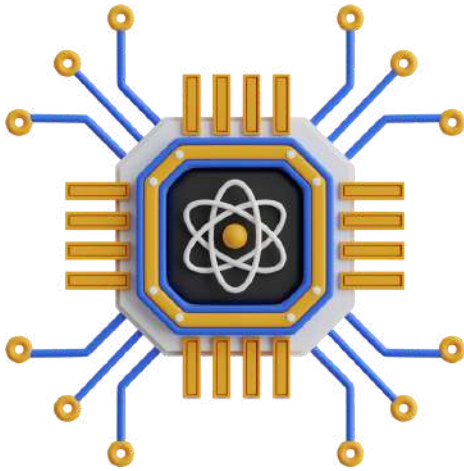


Marking the beginning of the online session series, this session featured Mr. Sandil Ranasinghe, Senior Software Engineer at HeyMilo AI. The discussion focused on the distinction between agentic AI and large language models, along with their problem-solving capabilities. It provided participants with a timely understanding of emerging AI trends.

Date: 21st March 2025



Session 03: Quantum Computing – The Next Big Thing



Led by Mr. Adhisha Gammanpila, Co-founder and CEO of Feynman, this session guided participants through the fundamental principles of quantum mechanics, its applications in AI, and potential real-world impacts in areas like finance, healthcare, and cybersecurity. Mr. Gammanpila offered accessible insights, practical resources, and a future-oriented outlook on the technology.

Date: 28th March 2025



Session 04- Introduction to FinTech

Presented by Mr. Mohamed Naseem Sadiq, Vice President – Products & Presales at Epic Lanka Pvt Ltd, this session examined how technology is revolutionizing financial services. Topics included mobile payments, blockchain, and AI-driven solutions. Real-world examples, especially from the Sri Lankan context, gave students a grounded understanding of the evolving FinTech landscape.



Date: 7th April 2025

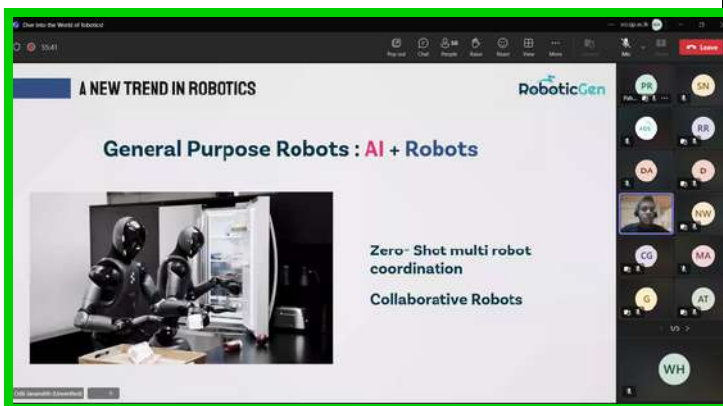
→ **Session 05: Step into the World of Game Development**

This session featured Mr. Kavindu Priyanath, Game Engineer at SpaceTimer. Attendees were introduced to industry-standard tools and development workflows in the gaming sector. Practical tips and personal insights helped aspiring developers understand the pathway to careers in game development and design.



Date: 11th April 2025

→ **Session 06- Introduction to Robotics**



Delivered by Mr. Odil Janandith, Chief Technology Officer at RoboticGen Academy, this session introduced students to the fundamental components of robotic systems, sensors, actuators, controllers, and algorithms. Applications in manufacturing, healthcare, and autonomous systems were explored, with emphasis on the role of AI in robotics. The session encouraged interdisciplinary learning across computing, electronics, and mechanics.

Date: 30th April 2025





Session 7 –IoT Bootcamp – Hands-on with the Future

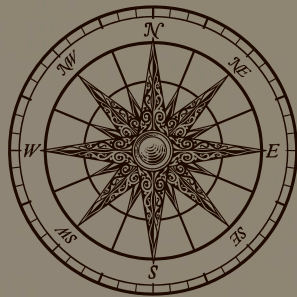
Organized in collaboration with Zone24x7, this hands-on workshop provided students with practical experience in Internet of Things (IoT) technologies. Participants worked with DHT11 and ESP32 sensors to measure environmental data and visualized their results using ThingsBoard Cloud. Guided by industry experts, the boot camp offered an interactive approach to understanding IoT architecture and real-world use cases.

Date: 15th May 2025

Venue: University of Sri Jayewardenepura



TechXplore 1.0 has left a lasting impact by bridging the gap between academia and industry through a series of insightful sessions on emerging technologies. We extend our sincere appreciation to the Dean of the Faculty of Computing, Mr. Prasad Jayaweera, as well as the academic and non-academic staff, whose unwavering support played a crucial role in the success of this initiative. We are also deeply grateful to our gold sponsor, Creative Software, and our knowledge partners, whose continued encouragement and collaboration brought this vision to life. As we look ahead, we remain dedicated to pushing the boundaries of learning, fostering innovation, and strengthening the vital connection between education and the evolving tech landscape.



*a guiding light for empowering
education*



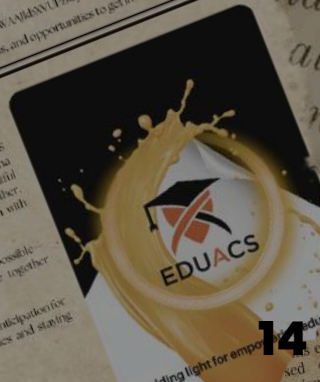
EDU ACS



Faculty of Computing
new members!
If you're eager to join the Association of Computing Students and be part of a dynamic, growth-focused community, join your respective batch's WhatsApp group now!
Year 1:
<https://chat.whatsapp.com/F3W7A8Q8M5XKCE2WV7T2f>
Year 2:
<https://chat.whatsapp.com/H4W7AM4WV1F4K9K5W9Y>
Stay tuned for updates, events, and opportunities to get involved!

Seminar Successfully Concluded

Today, we reached another exciting milestone in the EduACS Project. Our second seminar at Homagana Mahanda Rajakulsha College was a fantastic success, with engaging sessions, thoughtful discussions, and a wonderful spirit of collaboration. Together, we took a big step closer to empowering the next generation with the skills they need to thrive in the digital age.
A huge thank you to everyone who made this event possible. Your presence, support, and commitment made it all come together so beautifully. We're filled with pride and anticipation for future projects, always pushing boundaries and staying ahead of the curve. EduACS!



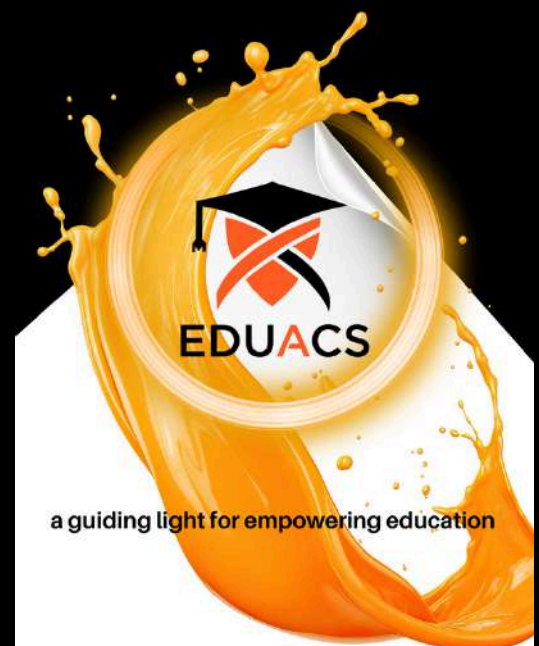
What is EduACS?



A GUIDING LIGHT FOR EMPOWERING EDUCATION

EduACS stands as the flagship community service initiative of the Association of Computing Students (ACS) at the University of Sri Jayewardenepura, driven by a mission to empower school students across Sri Lanka. With a focus on education, career awareness, and university exposure, EduACS is designed to support young learners as they navigate critical academic stages and shape their future goals.

This project primarily targets G.C.E. O/L and A/L students, offering them valuable academic assistance while also introducing them to the exciting opportunities in the field of computing and higher education.



The EduACS project is managed by a committed Organizing Committee, ensuring effective leadership and smooth coordination throughout the seminar series. The Executive Board includes Project Chair Vihanga Rathnayaka, Secretary Nishadi Wickramaarachchi, Editor Nuhansa Kodithuwakku, and Treasurer Ravindu Shashimal. Together, they oversee planning, communication, and resource management, while the broader Organizing Committee supports event logistics and participant engagement. Their combined efforts enable EduACS to successfully empower students and promote IT education across the region.

EduACS consists of two major sub-projects:

1. Connect – A/L IT Seminar Series (Physical Sessions)

“Connect” is a dynamic outreach program where university undergraduates visit schools and conduct physical A/L IT seminars. These sessions aim to:

- Strengthen students' understanding of A/L IT subject content
- Provide tips, strategies, and resources for exam preparation
- Share insights about university life, computing degrees, and career paths
- Inspire students to pursue technology-driven futures

The direct school visits create meaningful interactions, allowing students to ask questions and engage with undergraduates who once stood where they are now.

2. O/L Mathematics Seminar Series (Online Sessions)

This islandwide initiative provides free online mathematics seminars to O/L students from all corners of Sri Lanka. With the power of digital platforms, we:

- Ensure equal access to quality mathematics education regardless of location
- Conduct interactive, student-friendly sessions with real-time Q&A
- Offer revision support, exam techniques, and practice resources
- Encourage academic confidence and foster a love for learning

This project breaks barriers and brings learning to students' homes, supporting them during a critical stage of their education.



Through EduACS, the Association of Computing Students not only gives back to the community but also nurtures leadership, teaching, and communication skills among undergraduates. It's a journey of mutual growth—where those who guide and those who learn, both move closer to their aspirations.

Connect – A/L IT Seminar Series (Physical Sessions)



1. Kurunegala Maliyadeva College Seminar – A Strong First Step

Held on October 7, 2024, at Maliyadeva College, Kurunegala, this seminar marked the debut of the EduACS initiative. With the participation of nearly 250 A/L students, the session featured two key topics—Database Fundamentals and Basic Networking Concepts—delivered by ACS members. The university and faculty awareness session was well-received, and the enthusiastic student engagement set the tone for future events. This seminar played a vital role in introducing EduACS to the local community and establishing a strong foundation for the project’s success.





2. Homagama Mahinda Rajapaksha College Seminar – Reaching New Heights



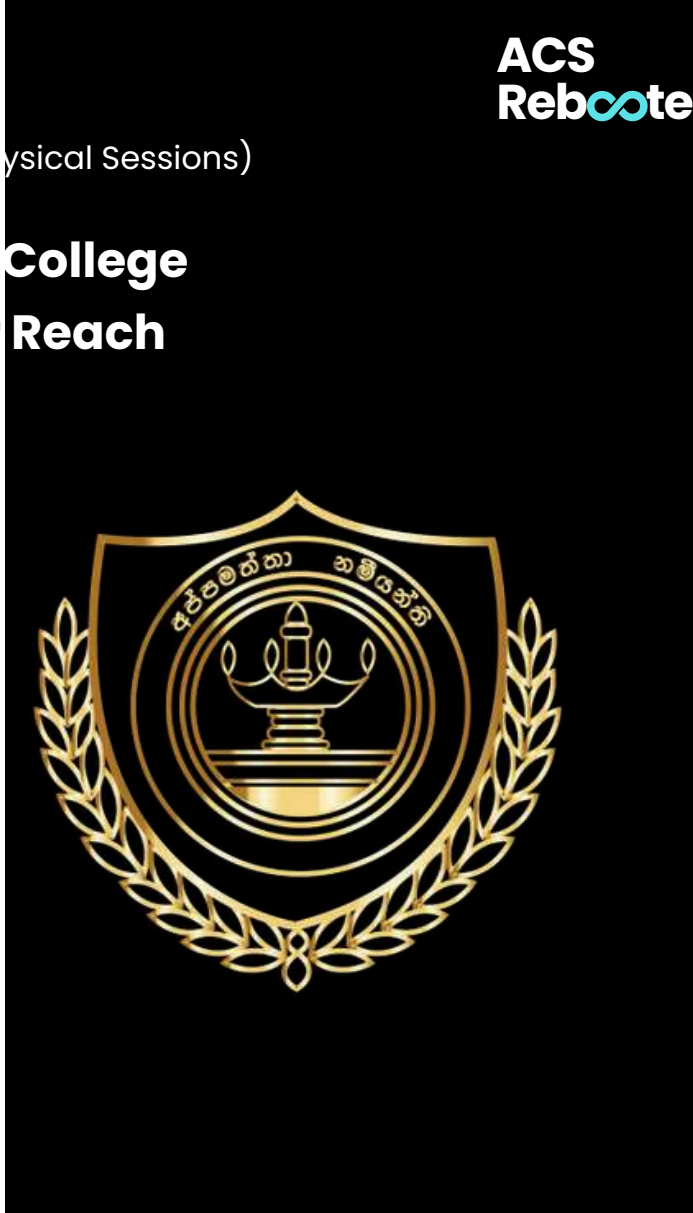
On January 6, 2025, EduACS visited Mahinda Rajapaksha College, Homagama, conducting a one-day seminar for over 250 A/L students. Topics such as Database Fundamentals and Networking Basics were taught in interactive sessions, while a motivational talk by the ACS Vice President encouraged students to pursue higher education in computing. This seminar also strengthened ACS's ties with the Homagama education zone and brought much-needed IT awareness to the area, despite challenges like securing sponsorships at the last minute.



Connect – A/L IT Seminar Series (Physical Sessions)

→ **3. Horana Taxila Central College Seminar – Widening Our Reach**

The third physical seminar took place on May 19, 2025, at Taxila Central College, Horana, with around 160 A/L students in attendance. Students were introduced to Introduction to Programming with PHP and Python Basics, which sparked lively discussions and interest in programming. A heartfelt motivational talk inspired students to see computing as a promising future. Backed by the support of the school's OBA, this seminar was a testament to EduACS's growing reach and local community impact.



Taking Education Nationwide

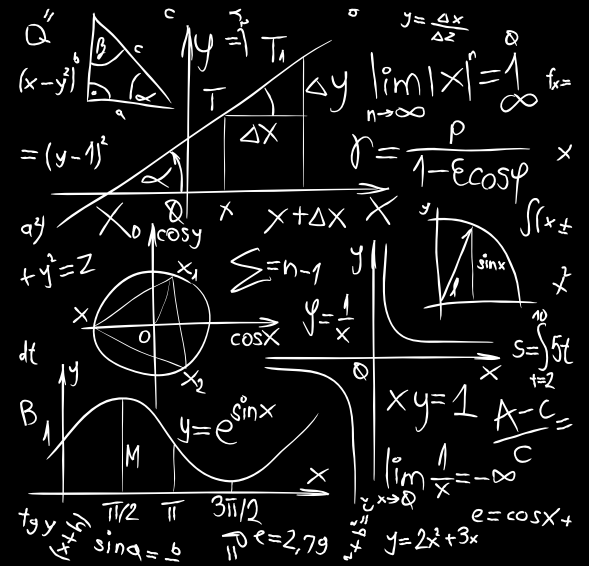
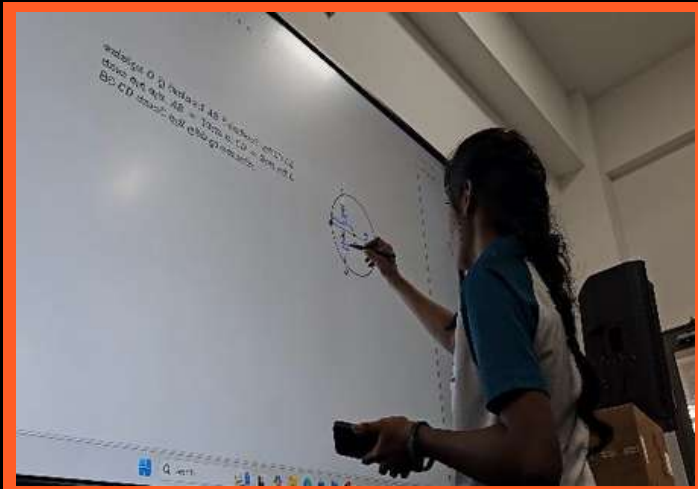


In an effort to support students preparing for their Ordinary Level examinations, EduACS conducted two online seminars tailored for O/L students across the island. Delivered via virtual platforms, these sessions focused on essential computer knowledge and study techniques. Despite being online, the sessions maintained a high level of engagement, thanks to interactive quizzes and Q&A rounds. This initiative helped EduACS extend its reach beyond physical boundaries and fulfill its mission of equitable IT education access.



1. 30th April 2024





2. 10th March 2025

With six successful seminars completed, EduACS continues to grow as a platform for empowering school students through IT education and university guidance. These efforts not only build awareness about computing as a career path but also strengthen the bond between the University of Sri Jayewardenepura and the wider community. The project is a reflection of the dedication, teamwork, and passion of ACS members, and we hope to expand its reach and impact in the coming years.





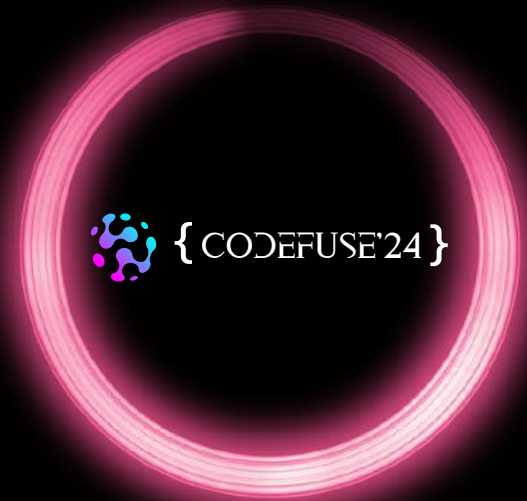
{ CODEFUSE'24 }



What is CODEFUSE '24?

IGNITING INNOVATION AT THE FACULTY OF COMPUTING

As the newest addition to the Sri Lankan University system, the Faculty of Computing has had a unique journey. Our late entry into the field meant our students, though incredibly talented, faced a distinct challenge: significant skill and experience gaps compared to their peers in the IT sector. Recognising this, the Association of Computing Students (ACS) swiftly took action, launching CODEFUSE: An Intra-Faculty DSA Hackathon.



CODEFUSE '24 was envisioned as more than just a competition; it was a dynamic platform for undergraduates to sharpen their coding skills, collaborate effectively, and tackle real-world problems in a competitive yet supportive environment. We were proud to collaborate with our esteemed knowledge partners, IEEE Sri Lanka Section and Senzemate, to bring this vision to life

From the initial spark of an idea, plans for CODEFUSE '24 rapidly took shape within a single month. Preparations were laid out, with the final event strategically scheduled to provide students sufficient time to gear up for the globally renowned IEEE Xtreme: 24-hour Global DSA Hackathon.

The momentum began building on July 21st, 2024, with a highly anticipated awareness session titled "Unlocking the World of Competitive Programming." Conducted by Mr. Ruwanga Karunaratne, a Tech Lead at WSO2, this hour-long deep dive into the essential DSA knowledge of competitive programming was a resounding success, attracting over 75 enthusiastic students.

Following the session, registrations flooded in. Within just one week, CODEFUSE '24 gathered an impressive 91 registrants out of 275 eligible first and second-year students – a testament to the students' eagerness to embrace this opportunity.

The hackathon itself kicked off bright and early on July 28th, 2024. Sign-ups opened at 7:00 a.m., and by 8:00 a.m. sharp, the intense 8-hour coding marathon was underway. Participants were initially presented with 5 challenging questions. To keep the competition dynamic, 3 new questions were released each hour from 10:00 a.m. to 2:00 p.m., totalling a comprehensive set of 20 problems.

As the clock struck 4:00 p.m., the hackathon came to a close. After an intense battle of wits and algorithms, Team Xterminators emerged victorious, claiming the championship title. Team TrackX and Team JthonX demonstrated exceptional skill, securing the 1st and 2nd runners-up positions, respectively. And just like that, the ACS's first-ever coding hackathon wrapped up, leaving behind a trail of invaluable memories, immense joy, and profound learning experiences.

The feedback from participants was overwhelmingly positive. Teams particularly appreciated the diverse range of problems, the seamless organisation of the event, and for many, the invaluable opportunity to experience their first-ever hackathon. We also identified key areas for improvement, which will be answered and enhanced in future iterations of the competition.



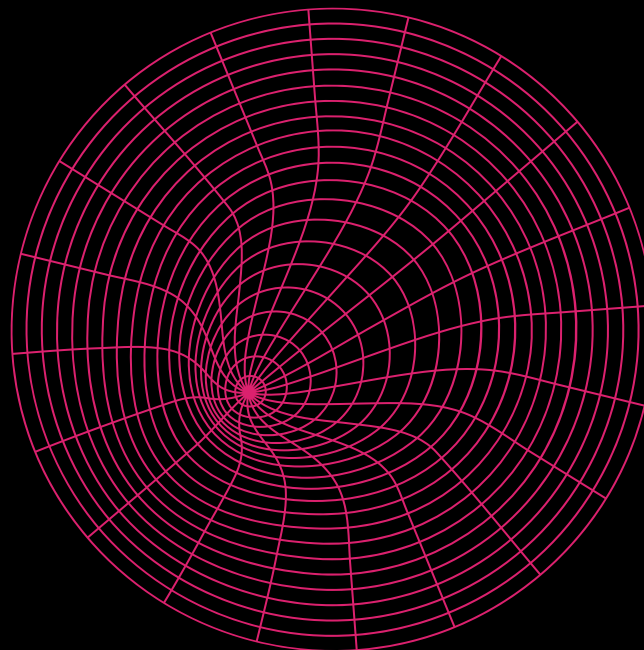
winner of codefuse'24





CODEFUSE '24 was brought to life by a passionate Organizing Committee, led by Project Co-Chairs Sandaru Wickramasinghe and Heshan Santhush, whose leadership ensured the smooth execution of the hackathon. The Design Force — Ravindu Vidurusinghe, Rasuwan Kalhara, Shenal Gunasekara, Janith Nanayakkara, and Suneth Chathuranga — played a key role in shaping the event's visual identity. With efficient planning, communication, and teamwork, the committee successfully created a platform that empowered undergraduates to unleash their coding potential and embrace innovation.

All in all CODEFUSE '24 was a resounding success, achieving its primary goals of encouraging teamwork, enhancing coding skills, and providing a platform for students to compete in a real-world coding environment. The support from sponsors, knowledge partners, and participants was instrumental in making this event a success. We look forward to building on this foundation for future editions of CODEFUSE.



DID YOU
KNOW? ✨

DIVE.
DISCOVER.
DISCUSS.

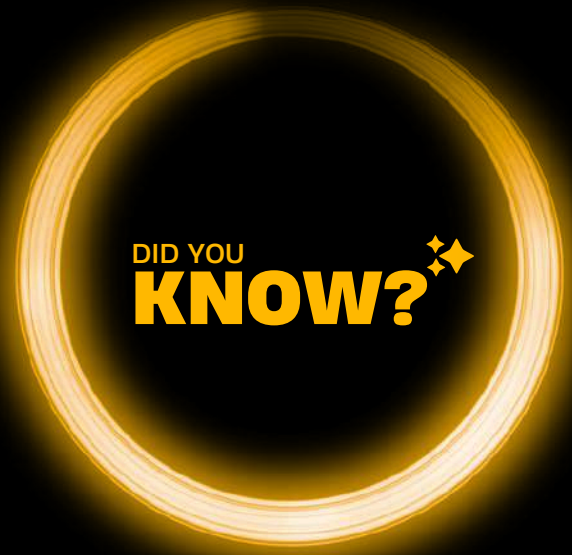
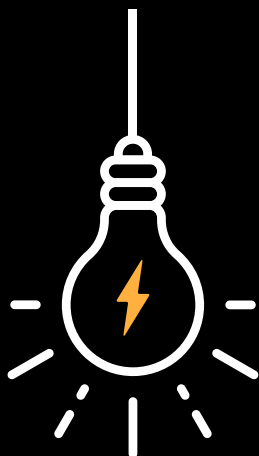
What is Did You Know?

DIVE. DISCOVER. DISCUSS.

The "Did You Know?" (DYK) project is a signature knowledge-sharing initiative launched by the Association of Computing Students (ACS) with a vision to spark curiosity, promote learning, and amplify student voices within the tech community.

At its core, DYK is a student-driven content platform where insightful articles, fun facts, and thought-provoking ideas are shared regularly, every week, across our digital ecosystem, including social media, the Medium blog, and the official ACS website. These contributions are authored by our very own undergraduates, making DYK a platform that celebrates the talent and intellect of future tech professionals.

The vision of the DYK Project is to cultivate a vibrant and informed student community that values continuous learning and the responsible dissemination of knowledge.



Through this initiative, ACS aspires to:

- Encourage and empower students to explore contemporary issues and innovations in computing.
- Provide a formal avenue for students to articulate their perspectives and research findings in a professional manner.
- Establish a lasting repository of high-quality content that reflects the intellectual capabilities and diverse interests of our students.
- Enhance academic discourse within the faculty by bridging theoretical learning with real-world applications and technological insights.

The DYK Project not only enhances the visibility of student contributions but also reinforces ACS's commitment to academic excellence, collaborative learning, and leadership in computing education.

01

Digital Burnout: How 24/7 Communication is Depleting Our Lives

In an era where phones illuminate all through the night on our nightstands and notifications beep with urgency, we're all trapped in a complex paradox of our time: we've never been more connected to each other, yet, simultaneously, we're overwhelmed by that very connection.

**The Unspoken Expectation of Quick Response.**

Several unwritten social contracts of the internet age have developed at a rapid rate over the past decade. What began as being reachable in case of emergencies has snowballed into an unsaid expectation of being always available. The 24-hour grace time for responding to emails has become a "send-follow-up-messages-if-not-responded-within-hours" business. The typing bubble's three dots create anticipation that demands immediate attention. Our devices, designed as tools of liberation, have instead quietly become devices of endless obligation.



This phenomenon crosses the line humankind must have between personal and professional spaces in an unsettling manner. Workplace messaging apps like Slack and Microsoft Teams, often considered as productivity enhancers, also readily become digital leashes that extend the workday well past traditional hours.

The 9-to-5 workday is now the 24/7 on-call grind, with managers firing off midnight messages with the caveat of "no need to respond until morning, respond now," creating exactly the pressure they claim to alleviate. That brings me to the next point,

The Illusion of Productivity.

Perhaps the cruelest trick of constant communication is its false promise of enhanced productivity. The mountain of messages we process creates a sense of accomplishment - the inbox temporarily cleared, the notifications addressed - but this reactive work often comes at the expense of deep, meaningful progress on complex tasks requiring our utmost attention.



Cal Newport, author of *Deep Work*, distinguishes between "shallow work" (the rapid-fire responses to communication) and "deep work" that generates real value. According to the author, knowledge workers are valuable precisely because of their ability to create new value through concentrated thought. However, he believes that they're increasingly measured by their responsiveness to communication, which actually prevents the very work they're employed to do in the first place.

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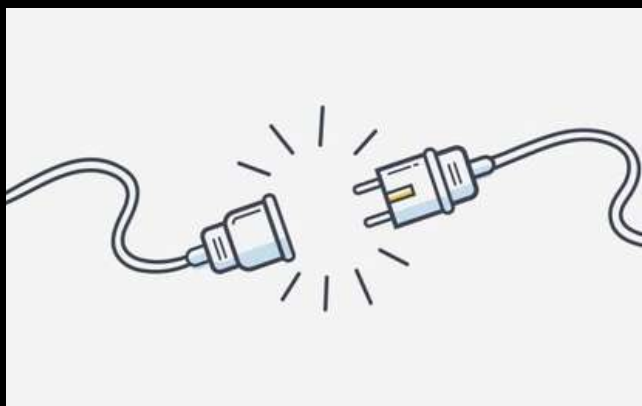
The Social Consequences of Digital Absence.

The social dynamics around digital connectivity create powerful conformity pressures. The person who steps away from constant communication risks being labeled unresponsive, disengaged, or technologically backward. Digital abstinence, even temporary, can trigger worry or even offense among those accustomed to immediate response.

There's an asymmetric punishment/reward system at play. The social or professional consequences for being 'unavailable' far outweigh any acknowledgment for maintaining healthy boundaries. No one gets praised for responding to messages only during business hours, but they might well face criticism.

This creates a collective action problem: while many people privately wish for relief from constant connectivity, few are willing to be the first to step back from it. The result is a society where nearly everyone is participating in a system that benefits almost no one.

Reclaiming Autonomy in a Connected World



The path toward a healthier relationship with digital communication isn't about rejection but reclamation - taking back control over when and how we engage. This begins with conscious boundary-setting, both internal and external.

Strategies that prove effective often involve creating structure around communication:

- Designating specific times for checking messages rather than responding continuously
- Using technology to manage technology such as auto-responders that set expectations for response times
- Creating physical distance from devices during periods of focused work or personal time
- Practicing "digital sabbaths" of regular periods completely disconnected from communication technology

Organizations that recognize the productivity paradox of constant communication are also beginning to implement structural solutions. Companies can institute "library rules" where synchronous communication is minimized, experiment with email blackout periods or "no-meeting days" to protect blocks of focused work time.

The Revolutionary Act of Considered Response

In a world optimized for immediate reaction, taking time to thoughtfully respond has become almost countercultural. Yet the quality of our thinking and by extension, the quality of our work and relationships depends on creating space between stimulus and response.

The most valuable communications are rarely the fastest. They're the ones formed with intention, crafted with context, and delivered with clarity. They respect both the sender's need to express and the recipient's capacity to absorb and consider.



Perhaps the most radical act in our hyperconnected age is to reclaim our right to respond in our own time to transform from constantly reactive to selectively responsive. In doing so, we might discover that true connection doesn't depend on constant communication at all, but rather on the depth and quality of engagement when we do choose to connect.

As we journey on through this world that is always connected, the challenge is not to sever our digital connections completely but to leave them loose with the understanding that these tools are just meant to serve our greater purposes, not become our purpose itself.

The problem of expecting constant communication will not be solved by introducing more technology, but by embracing a cultural shift in our expectations of ourselves and others. In an age where the world is so focused on immediate performance, the greatest thing we can cultivate amongst us is patience and compassion with each other.

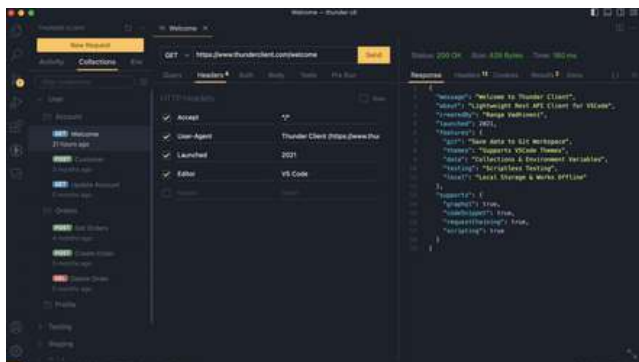
**Article by: Mulaffar Fathima Sarah
22/23 batch**

02 The Best VS Code Extensions That Eliminate the Need for Separate Tools

Visual Studio Code (VS Code) is one of the most popular code editors, known for flexibility, speed, and a wide extension marketplace. Developers often rely on multiple external tools for tasks like debugging, formatting, and version control. However, with the right VS Code extensions, you can integrate these functionalities directly into your editor, streamlining your workflow and boosting productivity.

In this article, I explore the best VS Code extensions that replace the need for separate tools, making your development experience smoother and more efficient. Whether you're a web developer, data scientist, or backend engineer, these extensions will help you code faster while keeping everything in one place.

01. Thunder Client: An alternative to Postman



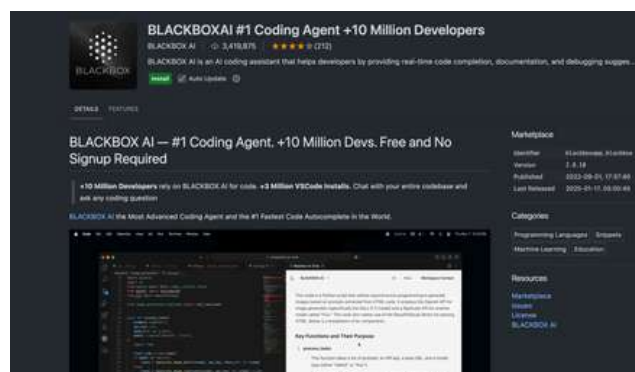
Many developers love Postman. It's a great tool for API development and testing. But it is also a separate application from our development environment, which might introduce unnecessary context switching. With the VS Code Thunder Client extension, you can replace Postman with a comparable experience directly within your development environment. It is an alternative tool to Postman and supports collections, CI/CD integration, local storage, and Git sync.

Migration Tips:

- Import Postman Collections: Export JSON files from Postman and import them into Thunder Client.
- Set Up Environment Variables: Thunder Client uses a different structure, managed in the Environment tab.
- Leverage VS Code Features: Use quick-pin collections, .env files, and shortcuts for efficiency.

Thunder Client works well for API development and testing. Postman offers additional features like monitoring and mock servers, so consider your needs when choosing between them.

02. BlackBox AI: ChatGPT alternative for VS Code

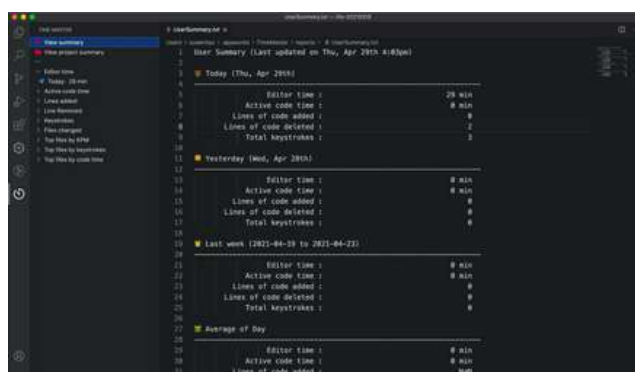


If you've been going back and forth between ChatGPT and VS Code, BlackBox AI is another AI coding assistant that works directly in VS Code. It provides code suggestions, explanations, and improvements without requiring separate tools.

While GitHub Copilot is a popular choice (and now free to some extent), BlackBox AI stands out by working immediately and needing no sign-up. It supports a wide range of coding tasks, including chat, code generation, suggestions, and reviews, making it a convenient alternative for developers who prefer an integrated experience.

One of the main advantages of ChatGPT is context awareness. BlackBox AI sees your whole project structure when making suggestions. It works well for developers who want AI assistance without leaving their editor.

03. Time Master: Alternative to Toggl and RescueTime



Toggl and RescueTime are popular for time tracking and productivity analysis, but they require switching between apps. Time Master, a VS Code extension, brings these features directly into your editor with a developer-focused approach.

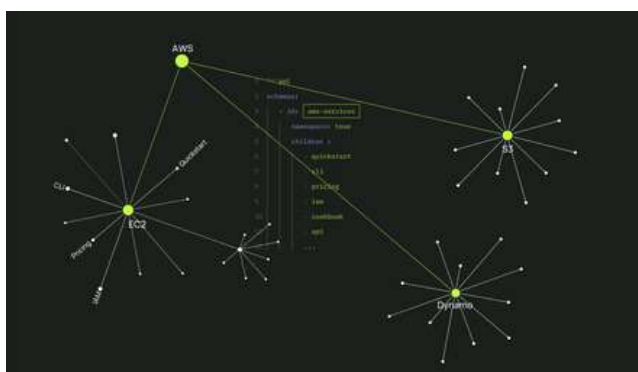
Unlike manual timers, Time Master automatically tracks your coding activity, generating insights and reports without extra effort. It's a great option for freelancers, teams, and anyone looking to streamline time tracking without leaving VS Code.

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The extension recognizes different types of development work and categorizes each automatically. Unlike RescueTime's window tracking, Time Master watches file changes and development activities. This can help you with more accurate reports for programming work.

Time Master lacks some features from the standalone apps - mobile apps, client billing, and detailed charts. But for pure development tracking, you might find it more useful than the other timers. Also, the fact that it's right in VS Code and you don't have to do anything complex to start tracking is very useful.

04. Dendron: Alternative to Notion and Obsidian



Knowledge management tools like Notion and Obsidian work well for general note-taking, but Dendron takes a developer-first approach. Dendron is built specifically for managing technical knowledge. It handles everything from documentation to meeting notes right in VS Code.

The extension uses a hierarchical structure that will feel familiar to developers:

Unlike Notion, this VS Code extension keeps everything in plain Markdown files that work seamlessly with Git. This means version Control for your notes,, edit history, and the flexibility to use any text editor. Your documentation stays alongside your code, making it a natural part of the workflow. You'll get quick lookups, backlinks, and structured hierarchies right in your editor. While you trade Notion's real-time collaboration and Obsidian's graph view, you gain developer-focused features like note references (similar to code imports), Mermaid diagrams, and KaTeX for equations—all while maintaining speed, even with thousands of notes.

05. GitDoc: Google Docs-style auto-saving for code

While not replacing a standalone app entirely, GitDoc transforms how code versioning works. It brings Google Docs-style automatic saving to your code; every save creates a git commit automatically.

Here's what this means in practice:

```
JavaScript
1 // Edit your code
2 const getUserData = () => {
3   // Save the file with Ctrl+S
4   // GitDoc creates a commit automatically
5 }
6
7 // Make another change
8 const getUserData = () => {
9   const data = fetchData()
10  // Save again
11  // Another commit is created
12 }
```

The extension only commits error-free code by default, so you won't accidentally preserve broken states. For specific branches or files, like documentation or school work, you can enable permanent auto-commits. For feature work, turn it on temporarily to track how your changes evolve.

GitDoc doesn't try to replace full git clients. Instead, it makes version control feel more natural - just save your file, and a version is preserved. When needed, you can still squash commits or undo changes using regular git commands.

Making the Switch to VS Code Extensions

Switching from standalone tools to VS Code extensions offers several advantages:

- Less context switching – Keep everything within VS Code without jumping between apps.
- Lower resource usage – Extensions use less memory than separate applications.
- Simplified updates – Manage all updates through VS Code's built-in system.
- Consistent interface – A familiar UI makes learning new tools easier.

Things to Consider:

- Feature requirements – Some specialized features may be missing in extensions.
- Team compatibility – Ensure your team is comfortable with the transition.
- Performance impact – Too many extensions can slow VS Code down.

VS Code extensions can replace many standalone tools, reducing context switching and improving workflow efficiency. While some specialized features may still require external apps, starting small and transitioning gradually helps find the right balance. Choose the mix of extensions and tools that best fits your workflow for a more streamlined development experience.

Article by: Amandi Thathsarani
21/22 Batch

Did you know that Object-Oriented Programming (OOP) is the foundation of modern software development?

Since the dawn of computers, programming languages have been a crucial element in communicating with machines and they have evolved quite a bit since their inception. Programming languages can be categorized into various paradigms according to how each language operates and behaves. One of the most notable paradigm of programming languages is Object-Oriented programming.

In this modern day and age, to cater to monumental systems and handle various changes throughout the system Object Oriented programming or better known as OOP languages have been a more suitable paradigm in the world of programming than other paradigms.

What is Object Oriented Programming?

In OOP we map real world entities of a system into objects, this entire OOP concept is based on objects. An object is a representation of real-world entity or concept. An object is derived from a class which is a blueprint for an object. An object can consist of attributes and methods. Attributes define how data is saved in an object, and methods dictate how an object behaves.

Why is OOP important in modern systems?

Using OOP paradigm in modern systems ensures that we can build systems efficiently. Here are a few reasons to choose OOP,

- Modularity and code Organization – OOP helps us encapsulate data and manage complex systems while properly organizing the source code.
- Reusability – Reusability is a key feature in modern systems as it saves a lot of time and resources in building a system and OOP supports it through inheritance.
- Scalability and maintainability – OOP helps us modify and scale up systems when introducing new features with ease.
- Better collaboration – In large development teams OOP helps multiple developers work together to build the system.

Main pillars of OOP



When talking about OOP we need to talk about the core principles involved with OOP. Often referred to as the pillars of OOP there are mainly 4 concepts that we need to investigate.

- Inheritance
- Abstraction
- Polymorphism
- Encapsulation

Inheritance



Inheritance is the concept where we derive a class from an already existing class effectively creating a parent-child relationship between them. The fascinating aspect of this is just like how a child inherits characteristics from their parents in the real world, the derived class (child class) will inherit attributes and methods from its super class (parent class). With this we can easily model real world entities that represent a parent-child relationship.

Eg :-

There can exist a class named "animal" and from it we can derive and make specific child classes such as "landAnimal", "birds", "seaAnimals", etc. and these child classes will inherit attributes and methods from its parent class.



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Abstraction



Abstraction is a concept that we see in many IT related applications. As the name suggests it is the process of effectively hiding complex details with a layer and simplifying its implementation. This is what happens in OOP as well. In OOP we make abstract methods, classes but the implementation of them will not be provided. However, a class that is derived from this abstract class will provide a specific implementation of it within its class.

Eg :-

There can exist a parent class named "shape" which implements a method "draw()", since there are many types of shapes we do not provide the implementation of the "draw()" method here. Next we can derive a class such as "circle" which inherits the methods of "shape" class, in here we can implement the "draw()" method giving the necessary implementation to draw a circle.

Polymorphism



"Poly" means many and "morphism" means forms. Therefore, polymorphism literally stands for many forms but how is it used in OOP? Polymorphism is used in OOP through method overriding and method overloading. Polymorphism helps us to make the code more flexible, scalable and reusable.

Method overriding is when a child class provides a specific implementation of a method that is already defined in the parent class.

Eg :-

The "animal" parent class has a method called "speak()" which outputs "animal is speaking", the "dog" child class derived from the "animal" class has a method "speak()" which overrides the parent classes implementation and outputs "dog is barking".

Method overloading is when we define multiple methods with the same name but different number and type of parameters.

Eg :-

A "math" class having 2 methods named "add(a, b)" and "add(a, b, c)". One method adds 2 numbers while the other method adds 3 numbers.

Encapsulation



The literal definition of encapsulation states that it is the process of enclosing something within a capsule. In OOP encapsulation is the process of bundling up data and methods into a single unit of data essentially hiding the details of the data and restricting direct access to it within the class. It restricts direct access to attributes and methods within a class.

Eg :-

There can exist a class named "bankAccount" which has a private attribute "balance". Direct access to this "balance" is restricted, and modifications can only be done through methods such as "deposit()" and "withdraw()". This ensures that the "balance" cannot be changed arbitrarily and follows the intended business logic.

Access modifiers

Furthermore, we need to investigate access modifiers which dictate how a certain class behaves. They control the visibility of attributes and methods. There are mainly 4 access modifiers,

1. Public
2. Private
3. Protected
4. Default

These access modifiers can be accessed according to the following ways,

	Public	Protected	Default	Private
Same class	Yes	Yes	Yes	Yes
Subclass, same package	Yes	Yes	Yes	No
Non-sub class, same package	Yes	Yes	Yes	No
Sub class, another package	Yes	Yes	No	No
Non-sub class, another package	Yes	No	No	No

OOP in different programming languages

OOP concept behaves in each programming language in different ways.

Java

Java is a fully Object-Oriented programming language. Memory management is done automatically through garbage collection and method overloading is supported.

Python

Python is not a fully Object-Oriented programming language as it supports multiple paradigms. Memory management is done automatically, and method overloading is not supported but can be stimulated in Python.

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C++

C++ is not a fully Object-Oriented programming language as it supports multiple paradigms. Memory management is done manually, and method overloading is supported.

C#

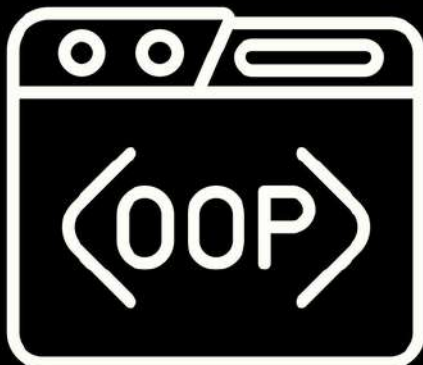
C# is a fully Object-Oriented programming language. Memory management is done automatically through garbage collection and method overloading is supported.

JavaScript

JS is mainly known as a prototype-based language which supports OOP. Memory management is done automatically, and method overloading is not supported in JavaScript. However, method overloading can be stimulated in other ways in JavaScript.

To conclude, OOP is a programming paradigm based on the concept of objects. There are 4 pillars in OOP which dictates how the object behaves. The access to object attributes and methods can be restricted and given through access modifiers and each programming language handles OOP concept in its own way. In the modern age of Software Engineering OOP concept has become more popular due to it supporting modular codes, reusability, scalability and overall maintainability when it comes to complex system. OOP furthermore helps us to directly model real world entities into the system. Therefore, OOP has become an essential concept to embrace and master to operate in the IT industry.

*Article by: Anushka Rodrigo
22/23 Batch*



DID YOU KNOW?

GOOGLE'S ORIGINAL NAME

Did you know that Google was originally called "Backrub"? It was renamed Google in 1997, a name derived from the mathematical term "googol," meaning the number 1 followed by 100 zeros.

FROM "BACKRUB" TO "GOOGLE" 🤖💡

DID YOU KNOW THAT GOOGLE WAS ORIGINALLY CALLED "BACKRUB"? 🤖

IN 1997, IT WAS RENAMED GOOGLE, INSPIRED BY THE TERM "GOOGOL," WHICH REPRESENTS THE NUMBER 1 FOLLOWED BY 100 ZEROS. 🤖🔗 THIS PLAYFUL NAME REFLECTED THEIR MISSION TO ORGANIZE VAST AMOUNTS OF INFORMATION ONLINE! 🤖📄

TODAY, GOOGLE IS SYNONYMOUS WITH INTERNET SEARCH, BUT IT ALL STARTED WITH A QUIRKY NAME CHANGE. 🤖🔗

#DIDYOUKNOW #ACS #USJ #GOOGLE #TECHHISTORY #SEARCHENGINE

DID YOU KNOW?

YOUTUBE WAS ORIGINALLY A DATING SITE

Did you know YouTube started in 2005 as a video-based dating site where users could upload videos introducing themselves. When that didn't work, they pivoted to general video sharing!

YOUTUBE'S UNEXPECTED BEGINNING ❤️🤖

DID YOU KNOW YOUTUBE WAS ORIGINALLY LAUNCHED IN 2005 AS A VIDEO-BASED DATING SITE? 🤖🔗

THE IDEA WAS FOR USERS TO UPLOAD INTRODUCTION VIDEOS TO FIND POTENTIAL MATCHES. WHEN THAT DIDN'T TAKE OFF, THE FOUNDERS PIVOTED TO GENERAL VIDEO SHARING—AND THE REST IS HISTORY! 🤖🔗

IMAGINE IF YOUTUBE HAD STAYED A DATING SITE! 😍❤️

#DIDYOUKNOW #ACS #USJ #YOUTUBE #TECHFACTS #FUNTECHHISTORY

DID YOU KNOW?

THE FIRST COMPUTER GAME

Did you know the first computer game, "Spacewar!," was created in 1962 by Steve Russell? It was played on a computer called the PDP-1 and featured two spaceships battling in outer space.

THE BIRTH OF COMPUTER GAMING 🤖🎮

DID YOU KNOW THE FIRST COMPUTER GAME, "SPACEWAR!," WAS CREATED IN 1962 BY STEVE RUSSELL? 🤖

PLAYED ON A COMPUTER CALLED THE PDP-1, IT FEATURED TWO SPACESHIPS BATTLING IN OUTER SPACE! 🤖🔗 THIS ICONIC GAME SET THE STAGE FOR THE VIDEO GAME INDUSTRY WE KNOW TODAY. 🤖🎮

FROM SIMPLE GRAPHICS TO IMMERSIVE WORLDS, GAMING HAS COME A LONG WAY! 🤖🔗

#DIDYOUKNOW #ACS #USJ #GAMINGHISTORY #SPACEWAR #COMPUTERGAMES

DID YOU KNOW?

THE ORIGIN OF FIREFOX LOGO

Did you know that the Firefox logo isn't actually a fox? 🤖🔗 It's a red panda! Mozilla chose the name to honor the endangered species, also known as the "firefox."

THE TRUTH ABOUT THE FIREFOX LOGO 🤖🔗

DID YOU KNOW THAT THE FIREFOX LOGO ISN'T ACTUALLY A FOX? 🤖

IT'S A RED PANDA! MOZILLA CHOSE THE NAME TO HONOR THIS ADORABLE ENDANGERED SPECIES, ALSO KNOWN AS THE "FIREFOX." 🤖🔗

NEXT TIME YOU BROWSE THE WEB, YOU'RE CARRYING A LITTLE PIECE OF WILDLIFE WITH YOU! 🤖❤️

#DIDYOUKNOW #ACS #USJ #FIREFOXFACTS #TECHHISTORY #REDPANDA

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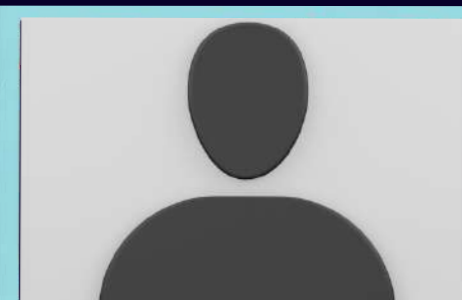
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(ACS)

THANK YOU!

To everyone who dreamed with us,
worked beside us,
and believed in what we could build -
Thank you.

This magazine is more than pages and
pixels;
it's a celebration of every effort, idea, and
spark
that made our journey as ACS a
meaningful one.
From late-night plans to launch-day
cheers
you were there.
And because of you,
we thrived.

*With deepest gratitude,
Association of Computing Students
University of Sri Jayewardenepura*

ACS Rebooted



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