

THE PROGRAMMERS' OASIS

DATE: 21 JUNE 2024

PROGRAMMERS' PARADISE

WELCOME TO OUR

Monthly Newsletter

Dear Club Members,

Welcome to another exciting month at our Programming Club! As your club incharge, I am thrilled to embark on this journey with all of you. Our club stands as a beacon for creativity, innovation, and collaboration in the realm of programming and technology.

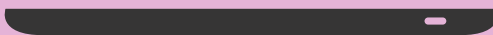
This month, we aim to push the boundaries of our knowledge and skills even further. Whether you are a seasoned coder or just beginning your journey in programming, there will be opportunities for everyone to learn and grow.

Our club is not just about coding; it's about fostering a community where ideas flourish and friendships form. I encourage each of you to actively participate, share your expertise, and engage with your peers. Together, we can create an environment that inspires creativity and drives us towards excellence.



From the Desk
of the club
Incharge

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*Reflecting on
our*

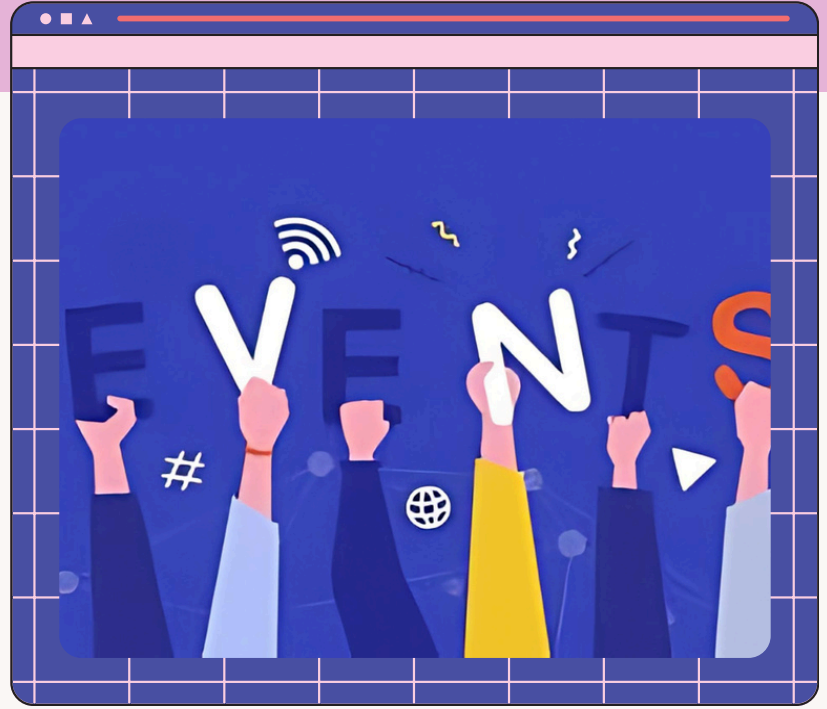
PAST EVENTS

Event 1 Introduction to GIT, GitHub & GitHub Desktop

Event 2 MATLAB WORKSHOP

Event 3 Competative Programming

Event 4 Introduction to computer vision



INTRODUCTION TO GIT, GITHUB & GITHUB DESKTOP

PROGRAMMERS' PARADISE RECENTLY HOSTED AN INFORMATIVE AND INTERACTIVE EVENT ON "INTRODUCTION TO GIT, GITHUB, AND GITHUB DESKTOP." THIS SESSION WAS DESIGNED FOR BOTH BEGINNERS AND SEASONED DEVELOPERS LOOKING TO ENHANCE THEIR VERSION CONTROL SKILLS.

THE EVENT COVERED THE ESSENTIALS OF GIT, THE POWERFUL VERSION CONTROL SYSTEM, AND HOW TO EFFECTIVELY USE GITHUB FOR PROJECT COLLABORATION AND REPOSITORY MANAGEMENT. ATTENDEES ALSO GOT HANDS-ON EXPERIENCE WITH GITHUB DESKTOP, A USER-FRIENDLY INTERFACE FOR MANAGING GIT REPOSITORIES.

PARTICIPANTS LEFT WITH A SOLID UNDERSTANDING OF VERSION CONTROL BEST PRACTICES, ENABLING THEM TO COLLABORATE MORE EFFICIENTLY AND STREAMLINE THEIR DEVELOPMENT WORKFLOWS.





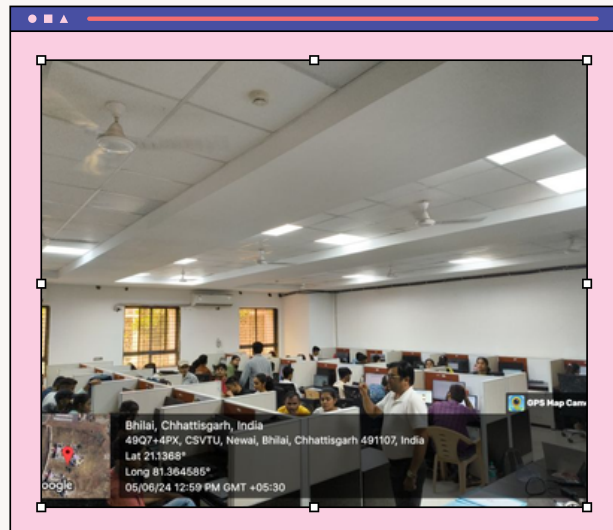
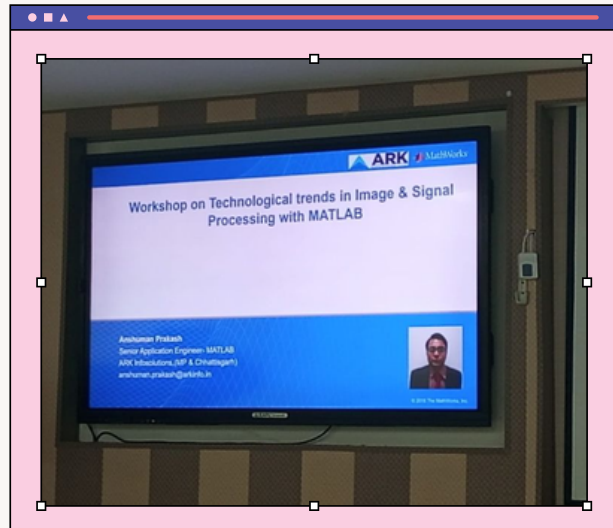
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MATLAB WORKSHOP

AN INSIGHTFUL WORKSHOP CONDUCTED BY MR. ANSHUMAN PRAKASH, A SEASONED EXPERT IN MATLAB. THE EVENT FOCUSED ON THREE CRITICAL AREAS: SIMULINK, IMAGE PROCESSING, AND COMPUTER VISION.

MR PRAKASH GUIDED PARTICIPANTS THROUGH THE BASICS AND ADVANCED FEATURES OF SIMULINK, ILLUSTRATING ITS POWER IN MODELLING, SIMULATING, AND ANALYZING MULTIDOMAIN DYNAMICAL SYSTEMS. THE SESSION ALSO DELVED INTO IMAGE PROCESSING TECHNIQUES, SHOWCASING HOW MATLAB CAN BE USED TO ENHANCE, ANALYZE, AND INTERPRET VISUAL DATA. FINALLY, ATTENDEES EXPLORED THE EXCITING FIELD OF COMPUTER VISION, LEARNING HOW TO IMPLEMENT ALGORITHMS FOR OBJECT DETECTION, RECOGNITION, AND TRACKING.

THE WORKSHOP WAS HIGHLY INTERACTIVE, WITH PRACTICAL DEMONSTRATIONS AND HANDS-ON EXERCISES, LEAVING PARTICIPANTS EQUIPPED WITH VALUABLE SKILLS AND KNOWLEDGE TO APPLY IN THEIR ACADEMIC AND PROFESSIONAL PURSUITS.

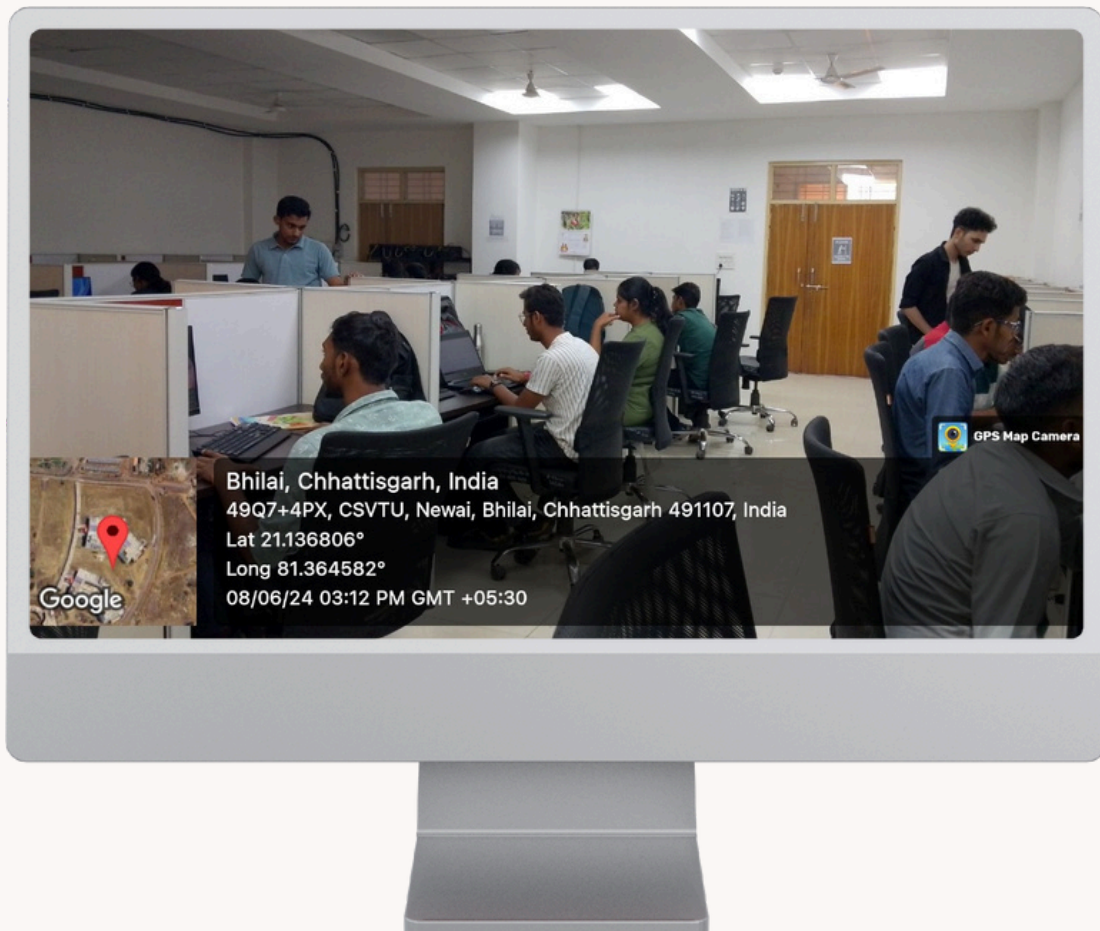


COMPETITIVE PROGRAMMING

PROGRAMMERS' PARADISE HOSTED A THRILLING COMPETITIVE PROGRAMMING CHALLENGE THAT BROUGHT TOGETHER CODING ENTHUSIASTS FROM VARIOUS BACKGROUNDS. THIS EVENT WAS A HIGH-ENERGY COMPETITION DESIGNED TO TEST PARTICIPANTS' PROBLEM-SOLVING SKILLS, ALGORITHMIC THINKING, AND CODING EFFICIENCY.

COMPETITORS FACED A SERIES OF CHALLENGING PROBLEMS THAT REQUIRED INNOVATIVE SOLUTIONS AND QUICK THINKING. THE EVENT NOT ONLY FOSTERED A SPIRIT OF FRIENDLY COMPETITION BUT ALSO PROVIDED A PLATFORM FOR PROGRAMMERS TO SHOWCASE THEIR TALENTS AND LEARN FROM EACH OTHER.

THE CHALLENGE CONCLUDED WITH IMPRESSIVE PERFORMANCES, HIGHLIGHTING THE PARTICIPANTS' DEDICATION AND EXPERTISE. IT WAS AN EXCELLENT OPPORTUNITY FOR ALL INVOLVED TO SHARPEN THEIR COMPETITIVE PROGRAMMING SKILLS AND NETWORK WITH LIKE-MINDED INDIVIDUALS IN THE CODING COMMUNITY.



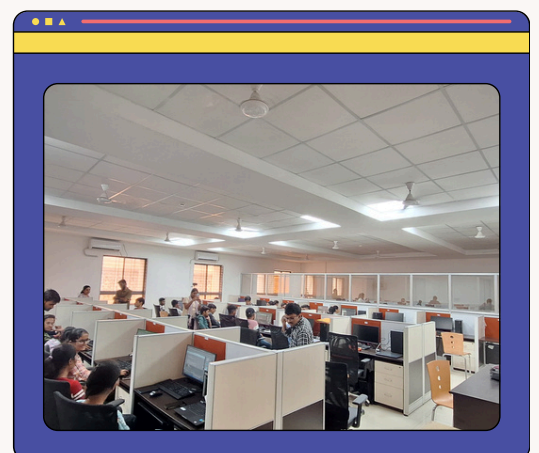
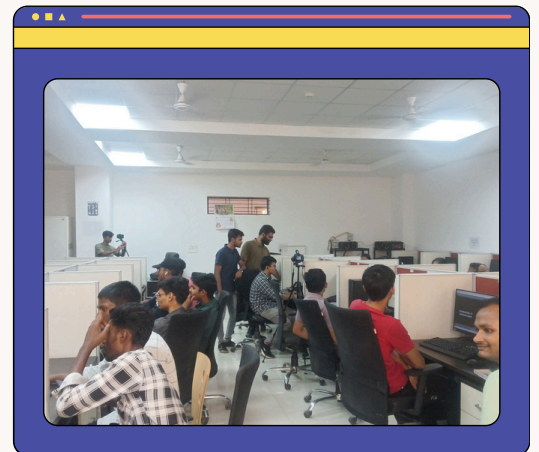


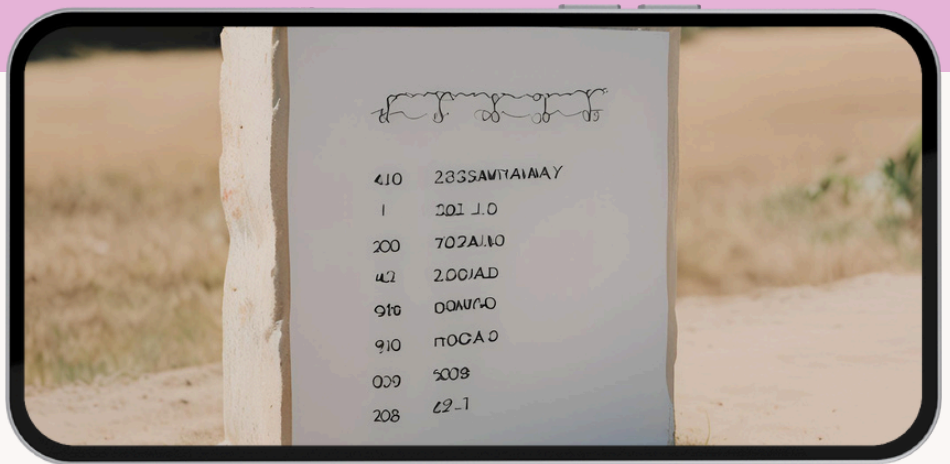
INTRODUCTION TO COMPUTER VISION

PROGRAMMERS' PARADISE RECENTLY CONDUCTED AN ENGAGING WORKSHOP TITLED "INTRODUCTION TO COMPUTER VISION." THIS EVENT PROVIDED ATTENDEES WITH A COMPREHENSIVE OVERVIEW OF COMPUTER VISION, EXPLORING ITS FUNDAMENTAL CONCEPTS AND PRACTICAL APPLICATIONS.

PARTICIPANTS WERE INTRODUCED TO KEY TOPICS SUCH AS IMAGE PROCESSING, FEATURE EXTRACTION, AND OBJECT RECOGNITION. THE WORKSHOP INCLUDED HANDS-ON SESSIONS WHERE ATTENDEES COULD EXPERIMENT WITH POPULAR COMPUTER VISION LIBRARIES AND TOOLS, APPLYING THEIR NEWFOUND KNOWLEDGE TO REAL-WORLD PROBLEMS.

THE INTERACTIVE FORMAT AND EXPERT GUIDANCE MADE THE WORKSHOP AN ENRICHING EXPERIENCE, LEAVING PARTICIPANTS WELL-EQUIPPED TO DELVE DEEPER INTO THE FASCINATING FIELD OF COMPUTER VISION.





our

MILESTONE

Since the founding of our club, we have set our sights on lofty goals. Thanks to the dedication and hard work of our members, we have accomplished several major milestones. Yet, this is just the beginning. At Programmers' Paradise, we don't rest on our laurels. We are committed to ongoing excellence and innovation, constantly pushing the limits of what we can achieve.

We're thrilled to announce that we are in the final stages of discussions to sign a Memorandum of Understanding (MoU) with two innovative companies: Swapso.io and Altair.

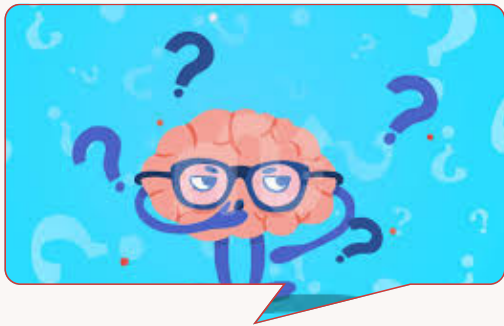
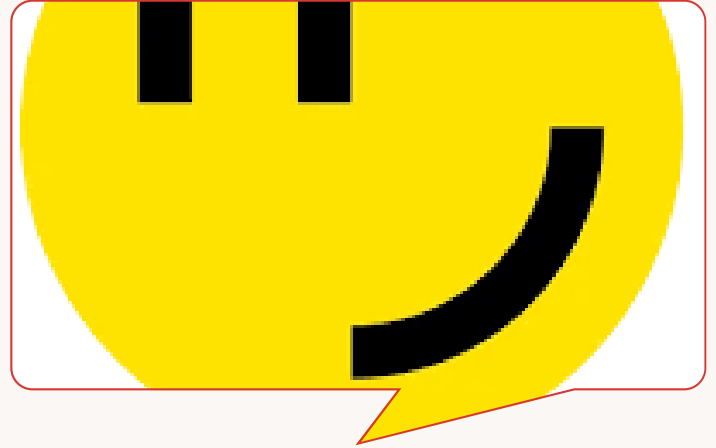
Our potential partnership with Swapso.io promises to bring cutting-edge technological advancements to our community. Swapso.io is renowned for its blockchain solutions and decentralised finance (DeFi) technologies expertise. We aim to enhance our capabilities in these rapidly growing fields by aligning with them.

In addition, we are on the verge of solidifying a partnership with Altair, a leader in digital innovation and transformative technology solutions, regarding conduction of workshops, hackathons and other events. We have also successfully exchanged conversation regarding license for **RapidMiner**.

Keep an eye out for further announcements as we move forward with these exciting collaborations!

ENIGMA ENCLAVE: THE RIDDLE ROUNDUP

Alice, Bob and Charles are standing in a line. Alice is looking at Bob. Bob is looking at Charles. We know that Alice is married, while Charles is not. Is there a married person among the three who is looking at an unmarried person?



Solution of Previous Riddle

A SCHOOL HAS EXACTLY ONE THOUSAND LOCKERS, NUMBERED FROM 1-1000, AS WELL AS ONE THOUSAND STUDENTS. EACH YEAR, THE PRINCIPAL HAS CLOSING CEREMONIES ON THE LAST DAY OF SCHOOL, DURING WHICH SHE ENLISTS THE HELP OF HER STUDENTS TO CLOSE UP THE SCHOOL'S LOCKERS. SHE ASSIGNS EACH STUDENT A NUMBER AND ASKS HIM OR HER TO HELP HER ONE BY ONE. THESE ARE THE INSTRUCTIONS SHE GIVES EACH OF THE STUDENTS. STUDENT #1: GO TO EVERY LOCKER AND OPEN IT. STUDENT #2: GO TO EVERY SECOND LOCKER AND CLOSE IT. STUDENT #3: GO TO EVERY THIRD LOCKER. IF IT IS CLOSED, OPEN IT, AND IF IT IS OPEN, CLOSE IT. STUDENT #4: GO TO EVERY FOURTH LOCKER. IF IT IS CLOSED, OPEN IT, AND IF IT IS OPEN, CLOSE IT. THIS GOES ON UNTIL STUDENT #1000 IS FINISHED. AFTER THE CLOSING CEREMONIES ARE FINISHED, THE PRINCIPAL WALKS THROUGH THE SCHOOL AND CLOSES EACH LOCKER THAT IS LEFT OPEN. HOW MANY LOCKERS WILL THE PRINCIPAL CLOSE?

Answer : 969

THIS PROBLEM IS RELATED TO FINDING WHICH LOCKERS REMAIN OPEN AFTER ALL STUDENTS HAVE FINISHED THEIR INSTRUCTIONS.

THE KEY INSIGHT HERE IS THAT A LOCKER WILL REMAIN OPEN IF IT HAS BEEN TOGGLED AN ODD NUMBER OF TIMES. EACH LOCKER N IS TOGGLED BY EACH STUDENT WHOSE NUMBER IS A DIVISOR OF N .

FOR EXAMPLE:

- LOCKER 1 IS TOGGLED BY STUDENT #1 ONLY (1 TIME).
- LOCKER 4 IS TOGGLED BY STUDENTS #1, #2, AND #4 (3 TIMES).

A LOCKER WILL END UP OPEN IF AND ONLY IF IT HAS AN ODD NUMBER OF TOTAL TOGGLES.

NOW, WHICH LOCKERS HAVE AN ODD NUMBER OF DIVISORS? ONLY PERFECT SQUARES HAVE AN ODD NUMBER OF DIVISORS BECAUSE DIVISORS GENERALLY COME IN PAIRS (EXCEPT FOR PERFECT SQUARES, WHERE ONE DIVISOR IS REPEATED).

THEREFORE, THE OPEN LOCKERS ARE EXACTLY THE LOCKERS NUMBERED WITH PERFECT SQUARES: $1^2, 2^2, 3^2, \dots, 31^2$.

TO FIND HOW MANY PERFECT SQUARES ARE THERE FROM 1^2 TO 31^2 :
 $1^2, 2^2, 3^2, \dots, 31^2$ GIVES US 31 PERFECT SQUARES.

THEREFORE, THE NUMBER OF LOCKERS THAT THE PRINCIPAL WILL CLOSE IS **969**

SEND US SOLUTION THROUGH
[GitHub USING THIS LINK](#)

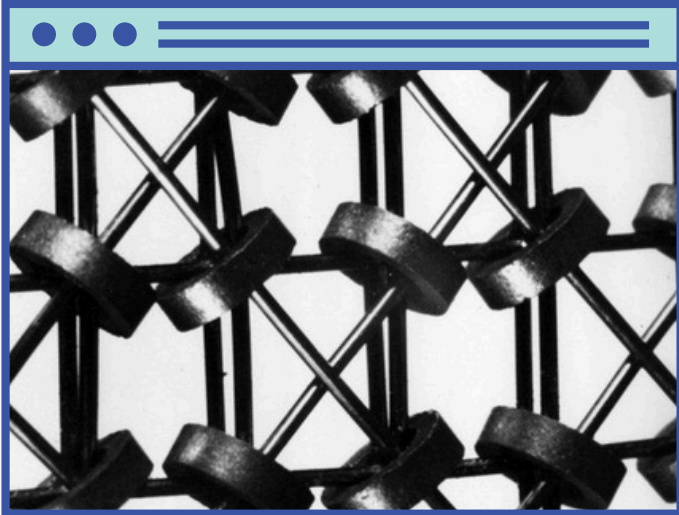
Tech

HISTORY

June 15, 1949

MIT's Forrester Records "Core Memory" Idea

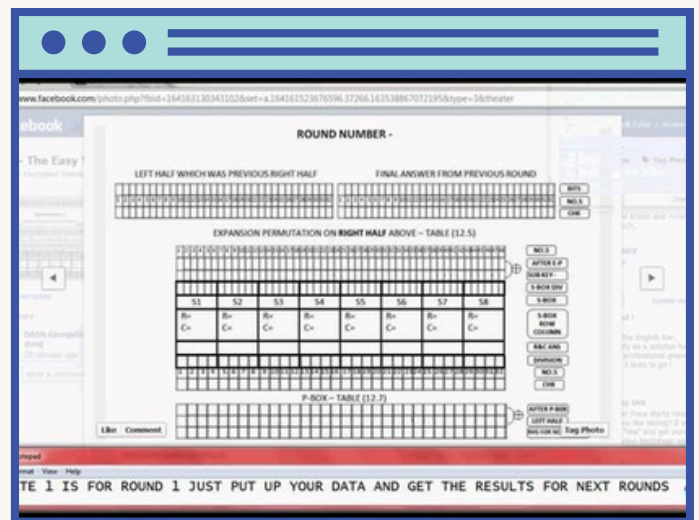
Jay Forrester recorded a proposal for core memory in his notebook. A professor at MIT at the time, Forrester eventually installed magnetic core memory on the Whirlwind computer. Core memory made computers more reliable, faster, and easier to make. Such a system of storage remained popular until the development of semiconductors in the 1970s.



June 17, 1997

Hackers Decipher Data Encryption Standard

Hackers deciphered computer code written in the Data Encryption Standard, which had been designed to be an impenetrable encryption software. A group of users organized over the Internet cracked the software **“the strongest legally exportable encryption software in the United States”** after five months of work. The United States bans stronger encryption software out of fear that it would be used by terrorists. Still, companies designing the software say such restrictions are worthless because foreign countries offer much stronger programs.



June 21, 1981

IBM Retires Last "STRETCH" Supercomputer

IBM retired its last "STRETCH" mainframe, part of the 7000 series that represented the company's first transistorized computers. At the top of the line of computers **“all of which emerged significantly faster and more dependable than vacuum tube machines”** sat the 7030, or STRETCH. Seven of the computers, which featured a 64-bit word architecture and other innovations, were sold to national laboratories and other scientific users. L. R. Johnson first used the term "architecture" in describing the STRETCH.



June 23, 1912

Computer Pioneer Alan Turing Born

Turing, a British mathematician, logician and cryptanalyst, played key roles in the conception and theoretical underpinnings of electronic computers. As a codebreaker at Bletchley Park in the UK during World War II, Turing led the team that cracked the "unbreakable" Enigma code used by the German high command for battlefield communications. This has led some observers to speculate that Turing's work alone shortened the war by two years, savings many lives. Turing is best-known today for his work on the idea of a "universal computer," one that could run any program. This has since become known as a "Turing Machine." Turing died under mysterious circumstances from cyanide poisoning in 1954, though it was officially declared suicide. He was 41.



Contact Information

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