

## BILL GATES



Bill Gates, widely recognized as the co-founder of Microsoft Corporation, spearheaded the personal computer revolution with the development and popularization of the Microsoft Windows operating system, establishing it as a global standard. His strategic vision propelled Microsoft to the forefront of the technology industry, positioning it as a leader in productivity suites and operating systems.

Upon his retirement from the company, Gates dedicated his time to philanthropy, co-founding the Bill & Melinda Gates Foundation. His philanthropic endeavors have made a profound impact on combating diseases, improving education, and promoting healthcare in developing nations.

## GRACE HOPPER



Grace Hopper, widely recognized as a pioneer in the field of computer science, distinguished herself through her groundbreaking contributions to the development of computer programming. As one of the first female programmers, her work revolutionized the industry. Her ingenuity led her to invent the first compiler, a revolutionary program that translates high-level code into machine language, laying the foundation for the creation of the COBOL programming language, which significantly simplified software writing.

Her leadership in defining programming standards and her unwavering advocacy for object-oriented programming made her a legendary figure, leaving a lasting legacy in the computer science industry.

## GLOSSARY

1. **Cybersecurity:** Practices and technologies employed to safeguard computer systems, networks, and data from cyber threats, including viruses, malware, and hacking.
2. **Algorithm:** A sequence of logical instructions designed to perform a specific task or solve a problem, applicable in various fields such as computer science.
3. **Encryption:** The process of transforming readable data into an unreadable form, known as ciphertext, using an algorithm or key, with the aim of protecting information during transmission or storage.
4. **Server:** A powerful computer dedicated to providing services to other computers in a network.
5. **Machine Learning:** The development of algorithms and models that enable computers to learn and improve automatically from experience.
6. **Cloud Computing:** An IT model that delivers computing resources over the internet, eliminating the need for local infrastructure.
7. **Firewall:** A device or software designed to monitor and filter network traffic, allowing or blocking data flow based on predefined rules.
8. **HTML:** HyperText Markup Language, a markup language used to create and structure content on web pages.
9. **Backend:** The part of a computer system that handles data processing and storage, as well as business logic, in a way that is invisible to the end user.
10. **Big Data:** A comprehensive set of techniques and technologies for analyzing, processing, and managing massive volumes of data, with the aim of extracting valuable insights and making strategic decisions.
11. **Blockchain:** A distributed ledger technology that facilitates the creation of shared and secure databases.
12. **Authentication:** The process of verifying the identity of a user or entity.

- 13. Robotics:** An interdisciplinary field that encompasses the design, construction, operation, and application of robots, which are programmable machines capable of performing tasks autonomously or semi-autonomously.
- 14. Web Development:** The process of creating and maintaining websites, which involves planning, designing, implementing, and optimizing.
- 15. Source Code:** A set of instructions written in a programming language that constitute a software program before being compiled or interpreted.
- 16. SDK (Software Development Kit):** A virtual environment used to facilitate the creation of applications compatible with its platform or technology.
- 17. VPN:** A technology that enables the establishment of a secure and encrypted connection over the internet.
- 18. JavaScript:** A programming language primarily used to create interactivity in web pages.
- 19. Neural Networks:** Computational models inspired by the functioning of the human brain, composed of interconnected nodes called artificial neurons.
- 20. Artificial Intelligence:** A branch of computer science focused on creating intelligent systems and algorithms that can perform tasks typically requiring human intelligence.
- 21. Frontend:** The part of a computer system or web application that interacts directly with the user, displaying the graphical interface.
- 22. Network:** A group of computers and other devices connected together to share resources and communicate.
- 23. Platform as a Service (PaaS):** A cloud computing service model that provides users with a complete platform for developing, deploying, and managing applications.
- 24. User Experience (UX):** The overall set of perceptions and emotional responses a user has when interacting with a product, system, or service.
- 25. Application Programming Interface (API):** A set of rules and protocols that allows different applications and systems to communicate with each other.