



## 3000 Technical Words and Its Meaning(English)

### E-Book



Er. Rajesh Prasad(B.E, M.E)

Founder: RID Organization

- **RID ORGANIZATION** यानि **Research, Innovation and Discovery** संस्था जिसका मुख्य उद्देश्य हैं आने वाले समय में सबसे पहले **NEW (RID, PMS & TLR)** की खोज, प्रकाशन एवं उपयोग भारत की इस पावन धरती से भारतीय संस्कृति, सभ्यता एवं भाषा में ही हो।
- देश, समाज, एवं लोगों की समस्याओं का समाधान **NEW (RID, PMS & TLR)** के माध्यम से किया जाये इसके लिए ही मैं राजेश प्रसाद इस **RID संस्था** की स्थापना किया हूँ।
- Research, Innovation & Discovery में रुचि रखने वाले आप सभी विद्यार्थियों, शिक्षकों एवं बुद्धिजिवियों से मैं आवाहन करता हूँ की आप सभी इस **RID संस्था** से जुड़ें एवं अपने बुद्धि, विवेक एवं प्रतिभा से दुनियां को कुछ नई **(RID, PMS & TLR)** की खोजकर, बनाकर एवं अपनाकर लोगों की समस्याओं का समाधान करें।

“कंप्यूटर टेक्निकल शब्द के इस पुस्तक में आप कंप्यूटर से जुड़ी सभी बुनियादी अवधारणाएँ सीखेंगे। मुझे आशा है कि इस पुस्तक को पढ़ने के बाद आपके ज्ञान में वृद्धि होगी और आपको कंप्यूटर विज्ञान के बारे में और अधिक जानने में रुचि होगी”

“In this book of Computer technical word you will learn all the basic concepts related to computers. I hope after reading this book your knowledge will be improve and you will get more interest to know more thing about computer Science”.

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## **RID हमें क्यों करना चाहिए?**

### (Research)

**अनुसंधान हमें क्यों करना चाहिए ?**

**Why should we do research?**

1. नई ज्ञान की प्राप्ति (Acquisition of new knowledge)
2. समस्याओं का समाधान (To Solving problems)
3. सामाजिक प्रगति (To Social progress)
4. विकास को बढ़ावा देने (To promote development)
5. तकनीकी और व्यापार में उन्नति (To advances in technology & business)
6. देश विज्ञान और प्रौद्योगिकी के विकास (To develop the country's science & technology)

### (Innovation)

**नवीनीकरण हमें क्यों करना चाहिए ?**

**Why should we do Innovation?**

1. प्रगति के लिए (To progress)
2. परिवर्तन के लिए (For change)
3. उत्पादन में सुधार (To Improvement in production)
4. समाज को लाभ (To Benefit to society)
5. प्रतिस्पर्धा में अग्रणी (To be ahead of competition)
6. देश विज्ञान और प्रौद्योगिकी के विकास (To develop the country's science & technology)

### (Discovery)

**खोज हमें क्यों करना चाहिए?**

**Why should we do Discovery?**

1. नए ज्ञान की प्राप्ति (Acquisition of new knowledge)
2. अविष्कारों की खोज (To Discovery of inventions)
3. समस्याओं का समाधान (To Solving problems)
4. ज्ञान के विकास में योगदान (Contribution to development of knowledge)
5. समाज के उन्नति के लिए (for progress of society)
6. देश विज्ञान और तकनीक के विकास (To develop the country's science & technology)

### ❖ Research(अनुसंधान):

- अनुसंधान एक प्रणालीकरण कार्य होता है जिसमें विशेष विषय या विषय की नई ज्ञान एवं समझ को प्राप्त करने के लिए सिद्धांतिक जांच और अध्ययन किया जाता है। इसकी प्रक्रिया में डेटा का संग्रह और विश्लेषण, निष्कर्ष निकालना और विशेष क्षेत्र में मौजूदा ज्ञान में योगदान किया जाता है। अनुसंधान के माध्यम से विज्ञान, प्रौद्योगिकी, चिकित्सा, सामाजिक विज्ञान, मानविकी, और अन्य क्षेत्रों में विकास किया जाता है। अनुसंधान की प्रक्रिया में अनुसंधान प्रश्न या कल्पनाएँ तैयार की जाती हैं, एक अनुसंधान योजना डिज़ाइन की जाती है, डेटा का संग्रह किया जाता है, विश्लेषण किया जाता है, निष्कर्ष निकाला जाता है और परिणामों को उचित दर्शाने के लिए समाप्ति तक पहुंचाया जाता है।

### ❖ Innovation(नवीनीकरण): -

- Innovation एक विशेषता या नई विचारधारा की उत्पत्ति या नवीनीकरण है। यह नए और आधुनिक विचारों, तकनीकों, उत्पादों, प्रक्रियाओं, सेवाओं या संगठनात्मक ढंगों का सृजन करने की प्रक्रिया है जिससे समस्याओं का समाधान, प्रतिस्पर्धा में अग्रणी होने, और उपयोगकर्ताओं के अनुकूलता में सुधार किया जा सकता है।

### ❖ Discovery (आविष्कार):

- Discovery का अर्थ होता है "खोज" या "आविष्कार"। यह एक विशेषता है जो किसी नए ज्ञान, आविष्कार, या तत्व की खोज करने की प्रक्रिया को संदर्भित करता है। खोज विज्ञान, इतिहास, भूगोल, तकनीक, या किसी अन्य क्षेत्र में हो सकती है। इस प्रक्रिया में, व्यक्ति या समूह नए और अज्ञात ज्ञान को खोजकर समझने का प्रयास करते हैं और इससे मानव सभ्यता और विज्ञान-तकनीकी के विकास में योगदान देते हैं।

**नोट :** अनुसंधान विशेषता या विषय पर नई ज्ञान के प्राप्ति के लिए सिस्टमैटिक अध्ययन है, जबकि आविष्कार नए और अज्ञात ज्ञान की खोज है।

### सुविचार:

1.	समस्याओं का समाधान करने का उत्तम मार्ग हैं   → शिक्षा ,RID, प्रतिभा, सहयोग, एकता एवं समाजिक-कार्य
2.	एक इंसान के लिए जरूरी हैं   → रोटी, कपड़ा, मकान, शिक्षा, रोजगार, इज्जत और सम्मान
3.	एक देश के लिए जरूरी हैं   → संस्कृति-सभ्यता, भाषा, एकता, आजादी, संविधान एवं अखंडता
4.	सफलता पाने के लिए होना चाहिए   → लक्ष्य, त्याग, इच्छा-शक्ति, प्रतिबद्धता, प्रतिभा, एवं सतता
5.	मरने के बाद इंसान छोड़कर जाता हैं   → शरीर, अन-धन, घर-परिवार, नाम, कर्म एवं विचार
6.	मरने के बाद इंसान को इस धरती पर याद किया जाता हैं उनके
→ नाम, काम, दान, विचार, सेवा-समर्पण एवं कर्मों से...	

### आशीर्वाद (बड़े भैया जी )



**Mr. RAMASHANKAR KUMAR**

### मार्गदर्शन एवं सहयोग



**Mr. GAUTAM KUMAR**



.....सोच है जिनकी नये कुछ कर दिखाने की, खोज हैं मुझे आप जैसे इंसान की.....

“अगर आप भी **Research, Innovation and Discovery** के क्षेत्र में रुचि रखते हैं एवं अपनी प्रतिभा से दुनियां को कुछ नया देना चाहते हैं एवं अपनी समस्या का समाधान **RID** के माध्यम से करना चाहते हैं तो **RID ORGANIZATION ( रीड संस्था )** से जरूर जुड़ें” || धन्यवाद || **Er. Rajesh Prasad (B.E, M.E)**

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# 1. COMPUTER

1. **Computer:** An electronic device that processes data and provides information to the user.
2. **Software:** A collection of instructions and programs for the user of a computer, used to perform various tasks of the computer.
3. **Hardware:** The devices, materials, and components used in a computer.
4. **Operating System:** The main control program of a computer system that establishes communication between the user and the hardware.
5. **RAM:** Random Access Memory, where the computer's stored data and programs are temporarily stored.
6. **CPU:** Central Processing Unit, which processes tasks in a computer and controls internal components.
7. **Input:** The process of entering information and data into a computer system.
8. **Output:** The process of displaying processed information and data from a computer system.
9. **Algorithm:** A set of instructions or procedures for manipulating a task for a computer.
10. **Binary:** The process of displaying digital data using two elements of signals (0 and 1).
11. **Internet:** A global computer network that allows users to access various resources and services.
12. **Firewall:** Security protection used to prevent unauthorized access to computer networks.
13. **Malware:** Covertly powerful and toxic software that enters and spreads in a computer system.
14. **Browser:** Software application used to open and view web pages on the internet.
15. **File:** An aggregated advertisement used to store information and data in a computer.
16. **Virus:** Harmful software created to replicate and spread in a computer system.
17. **LAN - Local Area Network:** A network that connects multiple computers in a limited area or region.
18. **WAN - Wide Area Network:** A network that connects computers and networks from one area to another.
19. **Server:** A specialized type of computer that provides services in a network and controls client computers.
20. **Cloud Computing:** A computing model that uses resources, data, and services over the internet.
21. **Network:** Infrastructure or structure that operates and communicates with multiple computers.
22. **Resource:** Hardware, software, data, and services used by a computer system.
23. **Input Device:** Devices used to display and enter information and data into a computer.
24. **Output Device:** Devices used to display processed information and data from a computer.
25. **Application:** Software programs designed for the use of computer users.
26. **Programming:** The process of creating programs or software in a computer.
27. **Compiler:** Software that converts programs from programming languages into machine language and organizes programs in a structured form.
28. **Interpreter:** Software that converts programs from programming languages into machine language in a step-by-step process.
29. **Program:** A set of specific instructions directed to a computer to complete a task.
30. **Instruction Set:** Commands and instructions understood by the CPU of a computer.
31. **Programming Language:** A language used to give instructions to a computer to perform tasks.
32. **Data:** An organized list of numbers, text, images, etc.
33. **Inbox:** A list of all new messages received in an email account.
34. **Outbox:** A list of all messages sent in an email account.
35. **Transfer:** The process of transferring data, files, or software from one location to another.
36. **Program Code:** The category of programs written in programming languages.
37. **Debugging:** The process of finding and correcting errors in a program.
38. **Screenshot:** An image of information displayed on a computer screen.

39. **Viral:** A term used to refer to videos, photos, or news that spreads rapidly on the internet.
40. **Antivirus:** Software used to detect and remove viruses and malware from a computer.
41. **Video Calling:** The process of video chatting with distant friends or family over the internet.
42. **Virtual:** The enhancement of a person or object that does not exist in a computer.
43. **Storage:** Devices or media used to store data and information.
44. **Wireless:** The process of connecting computer networks without wires or cables.
45. **Cyber Security:** The process and measures to protect internet and computer networks from threats.
46. **Digital Signature:** A code or process used to ensure the existence and authenticity of internet or digital documents.
47. **Database:** A structured group of stored information, files, and data.
48. **HTML:** Markup language used to create web pages.
49. **SEO - Search Engine Optimization:** A process and technique used to improve the quality and user experience of a website.
50. **Virtual Reality:** The process of experiencing created perspectives or environments through a computer.
51. **Resources:** Hardware, software, data, and services used by a computer system.
52. **Plug and Play:** A technique that allows devices to be automatically configured by a computer.
53. **Address:** A specific number used to identify a memory or resource, relating it to the associated resource.
54. **File Extension:** A specific identifier found at the end of a file that directs the type of the file.
55. **Protocol:** A set of rules and principles for controlling and storing data.
56. **Coding:** The process of creating computer programs or software.
57. **Scripting:** Programs written in scripting languages that run at runtime.
58. **DNS - Domain Name System:** A protocol used to convert domain names on the Internet into Internet Protocol addresses.
59. **Access:** The process of identifying and using a resource or service by a user.
60. **Timestamp:** Information about the date and time an event occurred.
61. **Routing:** The process of sending data packets from one location to another in a network.
62. **Cryptography:** The branch of science concerned with securing data and information.
63. **Redundancy:** The concept of redundancy in system devices.
64. **BIOS - Basic Input/Output System:** Software that controls the boot process of a computer.
65. **Cloning:** The process of copying the contents and settings of one computer or system to another.
66. **Backup:** The process of creating a copy of data or a file on another storage location.
67. **Paste:** The process of copying a particular organization from one document or file to another.
68. **Print:** The process of printing data or a file from a printer.
69. **Carbon Copy:** A process used to send a copy of a document to additional individuals.
70. **Transistor:** A type of semiconductor device that controls electrical currents and is used in electronic circuits.
71. **Disk:** A hard drive or external media used for data storage.
72. **Joule:** Used to measure or distribute power.
73. **Secure Shell (SSH):** A network protocol that allows secure remote login and file transfer.
74. **Circuit:** A group of electrical components that control electronic or electrical signals.
75. **Chip:** A structured group of numerical contexts or units.
76. **Digital:** The process of displaying data in the form of specific numerical symbols.
77. **Scalable:** The ability of a system or software to be expanded without major changes.
78. **Proxy:** A server that hides the user's identity to allow internet browsing.
79. **Remote:** A term used for tasks performed from a remote location.
80. **Generic:** An adjective prepared for general use, working as an application-director structure and groups.



- 81. Website:** A collection of web pages available under a specific domain name on the internet.
- 82. Cookies:** Data used to store browsing details of website users.
- 83. Link:** A sign used to navigate from one web page to another.
- 84. Address Bar:** A bar in a web browser that displays the domain name or website address.
- 85. Attachment:** An attached part of a file or document in an email.
- 86. File Sharing:** The process of transferring files from one system to another.
- 87. Default:** Features or settings predetermined by software or system manufacturers.
- 88. Graphics:** Collection of images and photos used for visual organization and processing.
- 89. Plugin:** Content or application displayed in a web browser for special functions.
- 90. Upgrade:** The process of changing to a new and improved version of software or hardware.
- 91. Wireless Router:** A device that connects a network without cables.
- 92. Screensaver:** Software that saves the screen from working without the user's permission on the internet or computer screen.
- 93. Computer Vision:** The technique of making computers and machines vision and perspective.
- 94. Entropy:** The degree of unpredictability and organization of data.
- 95. Boot:** The process of automatically starting a computer.
- 96. Page Refresh:** The process of reloading the current web page in a web browser.

## **2. COMPUTER NETWORK**

- 1. Network:** A group of related devices and communication mediums that share data and messages with each other.
- 2. Protocol:** A set of rules used for sending and receiving data and messages in a network.
- 3. Router:** A device used to distribute network traffic and route messages to their intended destinations.
- 4. Switch:** A device used to send and receive data packets in a network.
- 5. Firewall:** A security device used to keep a network secure.
- 6. IP Address:** A unique address used to identify devices in a network.
- 7. Subnet:** The process of dividing a large network into smaller sub-networks.
- 8. Gateway:** A device used to send and receive messages between different networks.
- 9. DNS:** A protocol used to translate domain names into IP addresses.
- 10. DHCP (Dynamic Host Configuration Protocol):** A protocol used to automatically provide IP addresses, subnet masks, and gateways to network devices.
- 11. LAN (Local Area Network):** A group of devices communicating within a localized area.
- 12. WAN (Wide Area Network):** A group of devices communicating over a large area.
- 13. NAT (Network Address Translation):** The process of translating internal and external IP addresses for network data.
- 14. VPN (Virtual Private Network):** A secure way to communicate over the internet.
- 15. Bandwidth:** The capacity to send and receive data in a network.
- 16. Latency:** The delay between transmitting and receiving data in a network.
- 17. Ethernet:** A commercial LAN technology used for networks.
- 18. Wi-Fi:** Technology that provides internet service wirelessly.
- 19. Modem:** A device used to convert digital data into analog signals for transmission over significant distances.
- 20. Hub:** A device used to connect all devices in a single network.
- 21. Topology:** A pattern showing the arrangement of devices and connections in a network.
- 22. MAC Address:** A unique identifier used to recognize network devices.
- 23. TCP (Transmission Control Protocol):** A protocol used for secure transmission and reception of data.

- 24. UDP (User Datagram Protocol):** A protocol used for immediate and connectionless transmission and reception of data.
- 25. IPsec (Internet Protocol Security):** A protocol used for network security.
- 26. SNMP (Simple Network Management Protocol):** A protocol used for monitoring and managing network devices.
- 27. OSI Model:** A model of network protocols divided into layers.
- 28. MAC Layer:** A layer used to identify the sender and receiver of data packets.
- 29. IP Layer:** A layer used to transmit packets through network addresses.
- 30. ARP (Address Resolution Protocol):** A protocol used to translate IP addresses into MAC addresses.
- 31. DNSSEC (Domain Name System Security Extensions):** An extension used for the security and extension of domain name systems.
- 32. FTP (File Transfer Protocol):** A protocol used for communicating files over a network.
- 33. HTTP (Hypertext Transfer Protocol):** A protocol used to update web pages.
- 34. HTTPS (Hypertext Transfer Protocol Secure):** A protocol used to update web pages securely.
- 35. SSL (Secure Socket Layer):** A protocol used to securely communicate data over the internet.
- 36. TLS (Transport Layer Security):** A protocol used for network security.
- 37. ICMP (Internet Control Message Protocol):** A protocol used to check and control the status of network data.
- 38. BGP (Border Gateway Protocol):** A protocol used to send and receive messages between different networks.
- 39. RIP (Routing Information Protocol):** A protocol used to distribute routing information among communication devices in a network.
- 40. OSPF (Open Shortest Path First):** A routing protocol used to find and distribute the shortest path in a network.
- 41. NAT (Network Address Translation):** The process of translating network data between internal and external IP addresses.
- 42. MAC Filtering:** Contextual control over devices on a network.
- 43. Ping:** A device used to send messages between network devices.
- 44. Traceroute:** A device used to determine the distance between network devices.
- 45. Port:** A number used for the entry and exit of data packets in a network.
- 46. Proxy:** A device that allows access to network devices using a private IP address.
- 47. Load Balancing:** A technique used to ensure equal distribution of data among network devices.
- 48. NAT:** Network Address Translation.
- 49. IP Spoofing:** Network address forgery.
- 50. Port Forwarding:** The regular directing of traffic coming to a specific port to internal or external IP addresses of network devices.
- 51. MTU (Maximum Transmission Unit) -** The maximum size of a data packet that can be transmitted at once by network protocols.
- 52. Proxy Server -** An intermediary device used for internet access by client devices.
- 53. Mesh Topology -** A communication network where each device is directly connected to all other devices.
- 54. Star Topology -** A communication network where all devices are connected to a central hub.
- 55. Ring Topology -** A communication network where each device connects to other devices, forming a complete ring.
- 56. Bus Topology -** A communication network where all devices are connected to a single communication line.
- 57. Hybrid Topology -** A communication network that is a combination of other topologies.
- 58. Network Segmentation -** The process of dividing a large network into smaller segments.
- 59. Network Redundancy -** Using additional devices in a network to keep it secure and stable.
- 60. Frame -** Packets divided into smaller segments of data.
- 61. Packet -** A small portion of network data sent as a message.
- 62. Broadcast -** The process of sending a message to all devices.

- 63. Unicast** - The process of sending a message to only one device.
- 64. Multicast** - The process of sending a message to select devices.
- 65. Anycast** - The process of sending a message to the nearest device.
- 66. Half-duplex** - A connection that allows data transmission and reception in only one direction at a time.
- 67. Full-duplex** - A connection that allows data transmission and reception in both directions simultaneously.
- 68. Network Interface Card (NIC)** - An interface card for devices to connect to a network.
- 69. Router Table** - A table in a router that stores information about available network routes.
- 70. Switching** - The process of forwarding data packets from one port to another.
- 71. Network Congestion** - The degradation of performance in a network due to excessive data or traffic.
- 72. Bandwidth Throttling** - The process of controlling the speed of data between network devices.
- 73. QoS (Quality of Service)** - The ability to prioritize network traffic based on high, medium, and low priority.
- 74. Jitter** - The variation in arrival time of data packets in a network.
- 75. Latency** - The delay between data transmission and reception in a network.
- 76. Gateway** - A device used to send and receive messages between networks.
- 77. IP Address** - A unique address used to identify devices on a network.
- 78. Subnet** - The process of dividing a large network into smaller parts.
- 79. VLAN (Virtual Local Area Network)** - A logical network division for distributing devices.
- 80. MAC Address Filtering** - The process of allowing devices on a network based on MAC addresses.
- 81. Firewall** - A device used for network security that controls traffic flow.
- 82. Proxy Server** - An intermediary device used for internet access by client devices.
- 83. DMZ (Demilitarized Zone)** - A separate part in network security positioned between the internet and the network.
- 84. WPA (Wi-Fi Protected Access)** - A protocol used for securing Wi-Fi networks.
- 85. WEP (Wired Equivalent Privacy)** - An older protocol used for securing Wi-Fi networks.
- 86. VPN (Virtual Private Network)** - A method of securely encrypting network connections to a specific network.
- 87. IPSec (Internet Protocol Security)** - A protocol used for network security.
- 88. NAT (Network Address Translation)** - The process of converting network data between internal and external IP addresses.
- 89. Load Balancer** - A device used to evenly distribute traffic between network devices.



## **3.OPERATING SYSTEM**

1. **Operating System** - Software for managing computer system resources and running applications.
2. **Kernel** - The central part of an operating system located in the core.
3. **GUI (Graphical User Interface)** - The interface of an operating system for interacting with users in a graphical format.
4. **CLI (Command Line Interface)** - The interface of an operating system for interacting with users in a text-based format.
5. **Process** - A collection of executing instructions of a running application.
6. **Thread** - Separate parts of an executing application within a process.
7. **Multi-threading** - Feature supporting the execution of multiple threads simultaneously.
8. **Multi-tasking** - Feature enabling the execution of multiple applications simultaneously.
9. **Scheduler** - Mechanism for managing and controlling processes by queuing them based on priority.
10. **Memory Management** - Process of managing system memory resources and allocating space to applications.
11. **Virtual Memory** - Interface between hardware and memory for optimal memory usage.
12. **Paging** - Process of dividing processes into smaller portions in memory.
13. **Deadlock** - Situation where processes cannot proceed due to mutual blocking.
14. **Page Fault** - Situation when a process fails to retrieve the correct page in memory.
15. **File System** - Process of storing, accessing, and managing data by applications.
16. **FAT (File Allocation Table)** - Table used in a file system to track the location of files.
17. **NTFS (New Technology File System)** - Advanced file system for Windows operating systems.
18. **Directory** - Part of a file system used as a file organizer.
19. **File Permissions** - User-defined access and security settings for files and directories.
20. **Disk Defragmentation** - Process of organizing scattered files on a hard disk.
21. **Device Driver** - Software facilitating communication between the operating system and devices.
22. **Plug and Play** - Capability to transfer a device directly into the system.
23. **BIOS (Basic Input/Output System)** - Software controlling initial settings of a computer.
24. **Bootting** - Process of starting up a computer.
25. **Cache Memory** - Memory used for quick data access.
26. **RAID (Redundant Array of Inexpensive Disks)** - Group of disks for data security and performance enhancement.
27. **Partition** - Process of dividing a hard disk.
28. **Snapshot** - Image representation of administrative configurations or states.
29. **Reboot** - Process of restarting a computer.
30. **Hibernate** - Process of shutting down a computer while saving data in internal memory.
31. **Sleep Mode** - Process of shutting down a computer while transferring the current session to internal memory.
32. **System Call** - Mechanism for communication between user applications and the operating system.
33. **32-bit/64-bit** - Memory capability of various versions of an operating system.
34. **Device Manager** - Tool used in the operating system to manage device drivers.
35. **BIOS Setup** - Process of managing system settings in BIOS.
36. **Shell** - Software allowing applications to interpret operating system directives in natural language.
37. **User Account** - Information used for user identification and data access security.
38. **Administrator** - User with special rights for managing and controlling the system.
39. **User Group** - Group of users managing shared services and resources.
40. **User Interface** - Software or hardware facilitating communication between the user and the system.
41. **BIOS Boot** - Process initiating communication between BIOS and the computer.
42. **Interrupt** - Input generated by hardware or software to pause a running process or trigger a feature in the system.
43. **Bootloader** - Software transferring control to the operating system.
44. **Task Manager** - Software used for viewing and controlling current applications and processes.

45. **System Restore** - Process of restoring system settings to a previous state.
46. **Virtualization** - Process of running multiple operating systems on a single hardware platform.
47. **Sandbox** - Feature for securely isolating user applications.
48. **Firmware** - Software controlling the internal structure and operation of a device.
49. **File Compression** - Process of reducing the size of files.
50. **File Compression** - Process of reducing the size of files.
51. **Bootable Device**: A device capable of starting up the system.
52. **Restore Point**: A point in time where system features were functioning well, used to restore the system to that state.
53. **Batch Processing**: A process of completing many tasks at once.
54. **Real-time Operating System (RTOS)**: A system designed for applications that require immediate response.
55. **Live CD**: A CD used to boot up a computer and operate without an operating system.
56. **Cluster**: A group of devices used to store data and services together.
57. **Boot Sector**: A local sector on a hard disk where the bootloader is located.
58. **System Image**: A snapshot of the system's state that can be used to restore it to previous configurations.
59. **Virtual Machine**: A process of running different operating systems on one hardware.
60. **BIOS Password**: A password checked by BIOS to start the computer.
61. **Thrashing**: A situation where disk performance deteriorates due to excessive page faults in computer memory.
62. **BIOS Update**: The process of improving or updating the BIOS.
63. **Root Directory**: The top-level directory of a file system containing all directories.
64. **Multi-user System**: A system capable of supporting multiple users simultaneously.
65. **Swap File**: A special memory area where parts of application data can be moved.
66. **System Tray**: An area on the taskbar of an operating system displaying tools or notifications.
67. **Clean Boot**: The process of starting the operating system with only minimal services.
68. **Dual Boot**: The process of supporting two different operating systems on the same system.
69. **Sleep Hibernate**: Saving data in internal memory to put the computer into sleep or hibernate mode.
70. **Safe Mode**: A process of booting the system with minimal services, useful for troubleshooting.
71. **Paging File**: A special memory area with additional memory available for paging processes.
72. **Boot Menu**: The process of starting the computer with various boot options.
73. **Live USB**: A USB used to boot up a computer and operate without an operating system.
74. **Master Boot Record (MBR)**: A local sector on a hard disk where the bootloader is located.
75. **Operating System Architecture**: How a system's hardware is and its impact on the operating system's structure.
76. **Network Operating System (NOS)**: An operating system that manages and coordinates traffic on a network.
77. **Multitasking**: The ability to run and switch between multiple applications simultaneously.
78. **Process Control Block (PCB)**: Data structure useful for managing basic information about processes by the system.
79. **Context Switching**: The process of switching between processes or between their states in a system.
80. **Kernel Panic**: The system crashing due to a serious problem in the kernel of the operating system.
81. **Resource Allocation**: The process of allocating various resources of the system between processes and users.
82. **Deadlock**: Two or more processes waiting for each other's resources and unable to proceed.
83. **Starvation**: The situation where a process is hindered by a lack of access to various resources.
84. **System Monitor**: Software or tools for monitoring system performance and resource usage.
85. **Semaphore**: Software or tools useful for communication between processes and resources.
86. **Kernel**: The most important part of an operating system that directly controls hardware.
87. **System Files**: Files useful for managing the structure and common processes of an operating system.
88. **Microkernel**: A small-sized kernel with minimal services and special services plugged in.
89. **Distributed Operating System**: A system supporting an operating system on multiple nodes and computers.
90. **Batch Processing System**: A system designed to complete many tasks simultaneously.

91. **Time Sharing System:** The capability of multiple users to share the same system at the same time.
92. **Job Scheduling:** The process of organizing tasks in a system based on their priority, time, and resources.
93. **Preemptive Scheduling:** The ability to gather process times and switch them based on their status.
94. **Non-preemptive Scheduling:** The process of organizing processes according to time without gathering them.
95. **File System Mounting:** The process of adding a file system to the system so that it can be used.
96. **Floppy Disk:** An old type of magnetic disk with limited storage capacity.
97. **User Datagram Protocol (UDP):** A transport protocol supporting communication without data packet verification.
98. **Network Interface Card (NIC):** Hardware or devices useful for connecting a computer to a network.
99. **RAID (Redundant Array of Independent Disks):** The process of organizing various disks into a group for secure data storage.
100. **Router:** Hardware or software useful for sending network traffic with empty references without technical verification.
101. **Router Table:** Collection of rooted IP addresses for use on the network, managed based on routing rules.

## 4. SOFTWARE

1. **Software:** Software is a related group of computer programs, data, and instructions used to perform various tasks on a computer.
2. **Program:** A set of scripts or specific instructions that prompt the computer to complete a particular task.
3. **Coding:** The process of writing programs, which involves writing instructions in a language understood by the computer.
4. **Platform:** A related group of hardware and software necessary to run a software.
5. **Driver:** Software used to connect hardware to software and facilitate communication between them.
6. **Application:** A group of software installed on a computer to perform specific tasks for the user.
7. **Modularity:** The process of dividing software or programs into smaller parts so that they can be changed into different modules.
8. **Free Open Source:** Software whose source code is available, and users can use and modify it freely.
9. **Enterprise Management:** The process of using software to manage all of an organization's software resources.
10. **Software Development:** The process of creating a software or application, including planning, designing, coding, testing, and deployment.
11. **Testing:** The process of checking the quality, potential defects, and performance of software.
12. **Services:** Various features or benefits available as software, online or offline.
13. **Update:** The process of updating software with the latest improvements and security checks.
14. **Download:** The process of obtaining software or files from the internet or other sources onto your computer.
15. **Security:** Various technical measures and rules for the security of software and organizations.
16. **Antivirus:** Software used to detect, remove, and prevent viruses and malware on a computer.
17. **License:** A method that grants users permission to use software.
18. **Degrees of Freedom:** The number of possible alternative solutions to change in the software's source code.
19. **Scalability:** The ability to make changes in the plan and development of software.
20. **Stability:** The consistency and robustness of software, enabling it to function correctly in various situations.
21. **Repository:** A specific place for storing and collecting software.
22. **Open Source:** Software whose source code is publicly available, allowing it to be freely used and modified.
23. **Engineering:** Technical study and application in the development and planning of software.
24. **Research and Development:** The process of researching and developing new and advanced software technologies and methods.
25. **Independence:** The plan for software to be free from mutual interfaces and dependencies.

## 5. PROGRAMMING LANGUAGE

1. **Programming Language** - A specialized language used to instruct a computer and perform specific tasks.
2. **Syntax** - The method of following specific rules and conventions in a programming language.
3. **Semantics** - The method of understanding the meaning of specific words and instructions in a programming language.
4. **Compiler** - Software that translates high-level programming language into intermediate-level code.
5. **Interpreter** - Software that runs a program by interpreting it line by line on a computer.
6. **Variable** - A local structure in a program used to store specific data.
7. **Data Type** - The type of data associated with a variable, such as number, string, or boolean.
8. **Function** - A set of instructions that performs a specific task.
9. **Method** - In object-oriented programming, a function associated with an object.
10. **Array** - A data structure used to precisely reference a group of elements in arithmetic.
11. **String** - Useful data type for storing a group of characters, numbers, and other symbols.
12. **Boolean** - A data type that accepts only two possible values, such as True and False.
13. **Input** - The process of entering or using data in a program.
14. **Output** - The process of data or results exiting a program.
15. **Index** - A useful number for updating and identifying members in an array.
16. **Loop** - The process of repeatedly executing a set of instructions to accomplish a task multiple times.
17. **Conditional** - The process of executing a set of instructions only when a certain condition is met.
18. **Operator** - Symbols for performing calculations with data.
19. **Video** - A collection of graphics and animations in visual form.
20. **Audio** - A collection of music and sounds in auditory form.
21. **Integer** - A data type for whole numbers stored without decimals.
22. **Float** - A data type for decimal numbers stored with decimals.
23. **Double** - A data type for larger numbers than float.
24. **Char** - A data type for storing a character in a character set.
25. **Byte** - A data unit used in computing that refers to a binary number.
26. **Stack** - A specialized data structure for storing data with last-in, first-out behavior.
27. **Queue** - A specialized data structure for storing data with first-in, first-out behavior.
28. **Pointer** - A special variable that references a location in memory.
29. **Library** - A collection of pre-written code used in a programming language.
30. **API** - An interface of a programming language or software through which other applications can use its services.
31. **Class** - A data structure in object-oriented programming that includes attributes and methods.
32. **Object** - A combination of attributes and methods in object-oriented programming.
33. **Inheritance** - The process in object-oriented programming of relating the characteristics and methods of one class to another.
34. **Polymorphism** - The ability of a method in object-oriented programming to work in various forms.
35. **Encapsulation** - The process in object-oriented programming of organizing data and its related methods into a protected unit.
36. **Compiler** - Software that translates high-level programming language into intermediate-level code.
37. **Interpreter** - Software that runs a program by interpreting it line by line on a computer.
38. **Runtime** - The time during which a program is running.
39. **String** - A useful data type for storing a group of characters, numbers, and other symbols.
40. **Engine** - A part of a computer program that helps run and compile it.
41. **Algorithm** - A set of specific rules that defines the process for completing a certain task.
42. **Bug** - An error or mistake in a program that causes it to not work properly.
43. **Debugging** - The process of finding and correcting errors in a program.



44. **Testing** - The process of checking the functionality and correctness of a program.
45. **Debugger** - Software or tool that helps find and fix errors in a program.
46. **Compile Error** - An error that occurs due to the compiler's inability to understand the code of a program.
47. **Runtime Error** - An error that occurs while running a program.
48. **Logical Error** - An error that occurs due to logical flaws in the code of a program.
49. **Linking Error** - An error that occurs during the process of linking a program.
50. **Interface** - A medium for communication between two programs or software.
51. **Web Development** - The process of developing a website or web application.
52. **Application Development** - The process of developing local or standalone software applications.
53. **Web Design** - The process of creating the user interface and layout of a website or application.
54. **Front-end Development** - The process of developing the visible parts of a web or software application for users.
55. **Back-end Development** - The process of developing the hidden parts of an application or website.
56. **Embedded System** - An automated system designed to perform one or more tasks.
57. **Embedded Systems Programming** - The process of programming and controlling embedded systems.
58. **Database** - A local or remote structure for storing data and managing associated information.
59. **Database Management System** - Software for storing, manipulating, and managing databases.
60. **CSS** - Previously developed styling sheets useful for referencing the layout and style of a web page.
61. **HTML** - Previously developed markup language useful for referencing the structure and presentation of a web page.
62. **JavaScript** - A programming language useful for adding interactivity and animation to web pages.
63. **Java** - A high-level programming language useful for developing server, mobile, and desktop applications.
64. **C** - A programming language useful for developing system software and applications.
65. **C++** - A programming language developed on the basis of C for object-oriented programming.
66. **Python** - A general-purpose programming language used in various domains.
67. **SQL** - A structured query language useful for managing stored data in databases and answering questions.
68. **Visual Basic** - A visual programming language used to develop Windows applications.
69. **Flash** - Multimedia and animation tools useful for web development.
70. **Assembly** - A machine programming language useful for communicating with computer hardware.
71. **Applet** - A locally developed program on a web page that can be run in a web browser.
72. **Open Source** - Software that allows users to improve and use the code openly.



## 6. SOFTWARE ENGINEERING

1. **Software Engineering** - The study of methodologies and techniques for the development and management of software.
2. **Programming** - The creation and development of computer programs for software development.
3. **Version Control** - The technique of managing versions of software code.
4. **Structured Programming** - A method of writing programs by dividing them into appropriate sections.
5. **Object-Oriented Programming** - A method of thinking about programming in terms of objects and their interactions.
6. **Agile Development** - The process of development with regular communication and collaboration, aiming for adaptability and speed in software development.
7. **Pseudocode** - A program's structure for understanding its logic and methods.
8. **Adaptive Model** - The development process based on regular communication and feedback in software development.
9. **Blank Slate** - A method for storing program data at local locations.
10. **Waterfall Model** - A sequential and phased strategy for software development.
11. **Spiral Model** - Leadership in software development with regular communication and feedback.
12. **Version Control System** - Software useful for managing versions of software code.
13. **Estimation** - The process of estimating time and material value for software development.
14. **Verification and Validation** - The process of checking quality and correctness during software development.
15. **Test Plan** - The process of planning for software testing.
16. **Enhancement** - The process of adding new features to software.
17. **Debugging** - The process of finding and fixing errors in software.
18. **Integration Testing** - The process of testing various software modules together.
19. **Interface Design** - The process of preparing communication between users and the system in software.
20. **Error Handling** - The process of handling and correcting errors in software.
21. **Implementation** - The process of developing software according to design and planning.
22. **Bug Reporting** - The process of reporting errors in software.
23. **Test Case** - The plan for testing during software testing.
24. **Test Script** - Script or code for software testing.
25. **Test Coverage** - Measurement of accessed code and functions during software testing.
26. **System Environment** - The necessary environment for installing and running software.
27. **Tracing Path** - Tracking entry or route in software for praise, execution, and problem.
28. **Edge Case** - A special check for opportunities and appropriateness in software.
29. **Interface Testing** - The process of interfacing with the system during software interface testing.
30. **Bug Tracking System** - Software useful for reporting, troubleshooting, and resolving issues in software development.
31. **Adapter** - A method or tool for communicating between different interfaces in software.
32. **Abstraction** - The ability to summarize various aspects of software.
33. **Numerical Model** - The process of data versioning by numbers in software.
34. **Algorithm** - A collection of step-by-step instructions for performing various functions in software.
35. **Test-Driven Development** - The process of creating test cases before software development.
36. **Unit Testing** - The process of testing software modules or functions separately.
37. **End-to-End Testing** - The process of testing various aspects of software together for completeness and accuracy.
38. **Software Error** - An error or glitch in software that causes it not to function properly.
39. **Software Path** - The process of tracking given entries or roots in software.
40. **Software Coding** - The process of creating software through programming.
41. **Development Process** - Defined process and techniques for creating software.
42. **Feature** - A specific attribute or capability in software.
43. **Compiled Program** - Software file useful for operation by users.

44. **Engineering Approach** - Ethical and scientific evaluation for the development of specific software or supply chain.
45. **Executable** - A process file of software that is useful for operation.
46. **Engineering Construction** - The construction of various aspects of software in the process of software development.
47. **Code of Conduct** - A set of guidelines for regular and behavioral communication during software development.
48. **Code Analysis** - The process of checking the quality and security of software code.
49. **Resource Allocation** - Analysis and management of resource usage in software development.
50. **Probability Analysis** - Study and analysis of potential issues during software development.
51. **Development Tool** - Tools or software used in software development.
52. **Resource Allocation** - Planning and distribution of resources during software development.
53. **Program Lifecycle Management** - Managing various stages of a program in the software development process.
54. **Software Engineering Ethics** - Regular dialogue for ethical evaluation during software development.
55. **Code Structure** - Organization and arrangement of code in software.
56. **Resource Control** - Control and management of resource usage during software development.
57. **Internal Permission** - Permission for users within the software to access specific services or resources.
58. **Regular Resource** - Convenient distribution of necessary resources for software development.
59. **Resource Planning** - Planning and utilization of resources during the software process.
60. **Resource Structure** - Organization and arrangement of resources in software.
61. **Resource Arrangement** - Arrangement and utilization of resources during software development.
62. **Resource Allocation** - Provision and planning of resource usage during the software process.
63. **Resource Control** - Convenient distribution and usage control of resources during software development.
64. **Resource Accumulation** - Convenient distribution and planning of resources during software development.
65. **Resource Storage** - Organization and management of resources in software.
66. **Resource Distribution** - Convenient distribution and usage of resources during software development.
67. **Resource Handling** - Planning for convenient distribution and usage of resources during software development.
68. **Resource Administration** - Convenient distribution and usage of resources during software development.
69. **Resource Endpoint** - The final point of resource usage within the software.
70. **Resource Content** - Content and details of resources in software.
71. **Resource Validation** - Verification and validation of resources in software.
72. **Resource Retrieval** - Retrieving resources within the software.
73. **Resource Service** - Service or support for resources within the software.
74. **Resource Path** - The path or route of resources within the software.
75. **Resource Operation** - Action of using resources within the software.
76. **Resource Quality** - Quality or level of resources in software.
77. **Resource Configuration** - Configuration or settings of resources in software.
78. **Resource Framework** - Framework or system of resources in software.
79. **Resource Function** - Function or usage of resources in software.
80. **Resource Material** - Material or content of resources in software.
81. **Resource Detail** - Details or description of resources in software.
82. **Resource Refinement** - Refinement or improvement of resources in software.
83. **Resource Arrangement** - Arrangement or organization of resources in software.
84. **Resource System** - System or framework of resources in software.
85. **Resource Security** - Security or protection of resources in software.
86. **Resource Encryption** - Encryption or security measures for resources in software.
87. **Resource Recovery** - Recovery or restoration of resources in software.
88. **Resource Substitution** - Substitution or replacement of resources in software.
89. **Resource Reconstruction** - Reconstruction or rebuilding of resources in software.

90. **Resource Usage** - Usage or consumption of resources in software.
91. **Resource Configuration** - Configuration or structure of resources in software.
92. **Resource Process** - Process or workflow of resources in software.
93. **Resource Source** - Source or origin of resources in software.
94. **Resource Utility** - Utility or usefulness of resources in software.
95. **Resource Integration** - Integration or incorporation of resources in software.
96. **Resource Inspection** - Inspection or examination of resources in software.
97. **Resource Review** - Review or reevaluation of resources in software.
98. **Resource Testing** - Testing or evaluation of resources in software.
99. **Resource Replacement** - Replacement or substitution of resources in software.

## **7. WEB DEVELOPMENT**

1. **Web** - A collection of documents, pages, and resources connected worldwide on the internet.
2. **Website** - A collection of content, pages, and links on the web that internet users can access.
3. **Web Page** - A single page of a website that internet users can view.
4. **Frontend** - The area of web development responsible for creating the user interface.
5. **Backend** - The area of web development that manages server-side and database functions.
6. **Web Developer** - A person who works on coding and technical aspects to develop websites and web applications.
7. **HTML** - A markup language used to define the structure and presentation of web pages.
8. **CSS (Cascading Style Sheets)** - A style sheet language used to define the layout and presentation of web pages.
9. **JavaScript** - A programming language used to add interactivity and dynamism to websites.
10. **Web Server** - A computer or server that manages the display and communication of a website.
11. **Database** - A structured collection where data is stored and managed.
12. **Server-side Scripting** - The web development process where code is executed on the server to generate dynamic messages and pages.
13. **Client-side Scripting** - The web development process where code is executed in the user's browser to provide interactivity.
14. **Responsive Design** - A website or app design that adjusts with the user's device and displays well on various screen sizes.
15. **Bootstrap** - An open-source framework that helps in building responsive and interactive websites.
16. **AJAX** - A technique that enables changing and updating web pages without reloading them.
17. **API** - A set of rules or guidelines established for communication between web applications or servers.
18. **Frontend Framework** - A structured and standardized software framework used to develop websites or applications.
19. **Backend Framework** - A structured software framework for server-side coding.
20. **Domain** - A unique internet address of a website, such as [www.example.com](http://www.example.com).
21. **Hosting** - The service of hosting website files and data on a server to make them available over the internet.
22. **Domain Registrar** - A company providing services for the registration of domain names.
23. **URL (Uniform Resource Locator)** - The address of a web page or content available on the internet.
24. **Web Hosting** - The service of managing and displaying website files and data on a server.
25. **Database Server** - A server or computer where databases are stored and managed.
26. **Web Frontend Development** - The development of client-side code for the visual appearance and interactivity of a website.
27. **Web Backend Development** - The development of website and server-side code that manages server and database functions.
28. **Web Host** - A company or organization that hosts websites and data on a server to make them available on the internet.
29. **Portfolio** - A presentation of a web developer's or designer's skills, expertise, and work.
30. **Flat Design** - A modern design trend that presents content in a simple and pictorial manner.
31. **Grid-based Design** - Managing visual appearance and structure in design using a grid system.
32. **Cross-browsing** - The ability of a website or web application to display correctly in various web browsers.
33. **Website Speed** - The speed of loading and page transitions on a website, affecting user experience.

34. **HTML5** - A web standard for defining the structure and features of web pages.
35. **CSS3** - A web standard for defining the style and features of web pages.
36. **MVC - Model View Controller** - An architectural pattern used in web development that divides code into three separate parts: Model, View, and Controller.
37. **React** - A popular JavaScript library that helps in developing interactive and unified web applications.
38. **Angular** - A popular JavaScript framework used for building dynamic web applications.
39. **Vue.js** - A lightweight JavaScript framework used for building interactive web applications.
40. **JSON** - JavaScript Object Notation (जेसन) - A lightweight data interchange format used to transmit data between internal and external sources.
41. **Web Service** - A service for modifying and updating data and resources between remote organizations and applications.
42. **API Documentation** - A web page or document that showcases the usage, parameters, and other details of an API.
43. **SEO - Search Engine Optimization** - A process that helps in bringing a website to the top of search engine results and attracting reliable traffic.
44. **Web Commerce** - The process of buying and selling goods or services through a website or application.
45. **CMS - Content Management System** - A software platform for managing and updating website content.
46. **Web Application** - A website that supports interactivity and user actions.
47. **Blog** - A collection of regularly updated articles on a website.
48. **Frontend Loading** - The speed at which a website's files are downloaded and rendered, affecting page load time.
49. **Website Security** - The process and techniques to protect a website from hacking, espionage, and other suspicious attacks.
50. **Website Analytics** - A tool or service used to analyze traffic, visits, and user actions on a website.
51. **Web Design** - The art of designing the layout, structure, and user experience of a website.
52. **UI - User Interface** - Designing and managing the elements of an interface to interact with the user.
53. **UX - User Experience** - The process of ensuring the quality of a user's experience during interaction.
54. **Local Web Development** - The process of website or application development that occurs on a local server.
55. **Web Hosting Service** - A service for transferring website files to the internet.
56. **Data Interchange** - The process of transferring data between different formats, such as XML and JSON.
57. **Web Page Interaction** - The ability to interact with users on web pages.
58. **Typography** - The art of organizing and making text highly attractive in web pages and graphics.
59. **Web Page Loading Time** - The time it takes for a web page to load completely.
60. **Website Testing** - The process of checking the structure, content, and functionality of a website.
61. **Cross-platform** - Software that runs on various operating systems and devices.
62. **Experimental Development** - The process of website or application development by testing new technologies and usage models.
63. **Web Link** - Text or image used to relate between websites and pages.
64. **Website Login** - The process of identifying a user on a website or application.
65. **Cybersecurity** - The process and techniques to protect websites and website users from cyber attacks.
66. **Web DevTools** - Tools available in web browsers that help developers easily develop websites.
67. **Website Responsivity** - Website layout and design that adapts to different devices and screen sizes.
68. **Social Media Integration** - The process of integrating social media platforms into a website or application.
69. **Website Advertising** - The process of generating revenue by displaying advertisements in appropriate places on a website.
70. **Password Reset** - The process of resetting and changing a user's password.
71. **HTML Current Version** - The name of the current HTML version in use (e.g., HTML5).
72. **Verified Website** - A website that has been verified to be trustworthy and reliable.
73. **Verified Domain** - A domain name that has been verified to be legitimate and containing reliable content.
74. **Website Sale** - The process of purchasing a website from an individual or organization.
75. **HTML Form** - An element used on a web page to collect user input data.



- 76. **Cookies** - Small text files used to store and identify user data on websites.
- 77. **Website Scrolling** - The ability to scroll a web page up or down.
- 78. **Contact Form** - An element used in a website or application to establish contact between users and organizations.
- 79. **Screen Reader** - Software used by disabled users to listen to and understand the content of a website.
- 80. **Web Page Sharing** - The ability to share website pages on social media platforms.

## **8. DATA STRUCTURE**

- 1. **Data Structure** - A way of organizing and storing data systematically.
- 2. **Array** - A collection of elements stored in contiguous memory locations.
- 3. **Linked List** - A data structure in which elements are organized in a linked list.
- 4. **Stack** - A data structure where output occurs only from a specific end called the top.
- 5. **Queue** - A data structure where output occurs with the element that arrived first.
- 6. **Dictionary** - A data structure that stores information in key-value pairs.
- 7. **Binary Tree** - A type of hierarchical data structure in which each node is connected to two children.
- 8. **Binary Search Tree** - A balanced hierarchical data structure in which each node is connected to children, and there's organization based on size in related nodes.
- 9. **Traversal** - The process of viewing elements of a data structure in a defined sequence.
- 10. **Indexing** - The process of numbering elements in a data structure sequentially.
- 11. **Hash Table** - A data structure that organizes elements using a hash function.
- 12. **Hash Function** - A function that maps a given element key to an index.
- 13. **AVL Tree** - A balanced hierarchical data structure in which each node is connected to children and also maintains balance among related nodes.
- 14. **Tree Traversal** - The process of viewing all elements of a data structure in sequence.
- 15. **Insertion Sort** - A type of sorting algorithm that places elements in ascending order.
- 16. **Merge Sort** - A type of sorting algorithm that divides elements and then merges them in sorted order.
- 17. **Bubble Sort** - A type of sorting algorithm that compares elements pairwise and brings them to the correct position.
- 18. **Linked List Sort** - A sorting algorithm that arranges elements of a linked list in the correct order.
- 19. **Quick Sort** - A fast sorting algorithm that places elements in the correct position based on size.
- 20. **Sorting Algorithm** - A process that arranges elements of data into an ordered list.
- 21. **Search Algorithm** - A process that finds specific elements from a data structure.
- 22. **Breadth First Search** - A graph search algorithm that traverses all nodes of a graph level-wise.
- 23. **Depth First Search** - A graph search algorithm that explores a node, then its children's nodes, and continues this process.
- 24. **Kruskal's** - A graph search algorithm that connects all relations in a graph with minimum weight.
- 25. **Prim's** - A graph search algorithm that connects all relations in a graph with minimum weight and creates a set of smallest relations.
- 26. **Dynamic** - A data structure whose size can be changed, and elements can be modified.
- 27. **Static** - A data structure with a fixed size, and elements cannot be modified.
- 28. **Server** - A computer or organization that provides services and manages data.
- 29. **Client** - A computer or organization that consumes services and receives data from a server.
- 30. **Graph** - A data structure that represents elements as nodes and their relations.
- 31. **Update** - The action of modifying an element in a data structure.
- 32. **Delete** - The action of removing an element from a data structure.
- 33. **Search** - The action of finding a specific element from a data structure.
- 34. **Strongly Connected** - Two nodes in a graph that have a connection between them at all times.
- 35. **Weakly Connected** - Two nodes in a graph that have a connection between them for some time.



36. **Numeric** - A data structure containing only numbers.
37. **Alphanumeric** - A data structure containing both letters and numbers.
38. **Circular Array** - An array where the first element comes after the last element, and half elements are shifted to the beginning.
39. **Recursion** - A programming technique where a function calls itself.
40. **Naive** - A simple or straightforward method of organizing data.
41. **Quartile** - The process of dividing elements of a data structure into four parts.
42. **Key** - An element in a data structure that provides an official index for other elements.
43. **Boolean** - A data type that accepts only two values - true or false.
44. **Identity** - The status of two elements in a data structure that are distinct from each other.
45. **Ordinal** - An index used to arrange elements in a data structure.
46. **Prefix** - The usage of an element in a data structure before arithmetic operations.
47. **Postfix** - The usage of an element in a data structure after arithmetic operations.
48. **Trie** - A special data structure where elements are organized in alphabetical order.
49. **Styling** - The process of defining the appearance, color, and other attributes of elements during web development.
50. **Scope** - The limit of usage for a variable or function in web-developed code.
51. **Binding** - The process of associating a variable or function in its operational form in a web-developed code.
52. **Loop** - A structured group of code that repeats certain actions multiple times.
53. **Accessible Variable** - A variable in web-developed code that can be used within its associated section.
54. **Data Type** - The type or nature of data for a variable in a programming language.
55. **Scope Range** - Determining the extent of usage of a variable or function in web-developed code.
56. **Inheritance** - The act of following more than one properties of an object or variable.
57. **Assignment** - The process of setting a value in a variable in web-developed code.
58. **Struct Variable** - A variable used to organize elements in a structured part of a data structure.
59. **Pointer Variable** - A variable used in web-developed code to index or reference other variables.
60. **Conditional** - Decision based on the value of a variable in a programming language.
61. **Software Design** - The process of planning and organizing various aspects of software.
62. **Software Development** - The process of writing code for software and testing it.
63. **Divide and Conquer** - The process of dividing a problem into smaller parts and solving them separately.
64. **Separation and Cohesion** - The process of separating and integrating various parts of software.
65. **Programming** - The activity of coding a list of structured tasks systematically.
66. **Pattern** - A common solution for an anticipated problem in software development.
67. **Information Hiding** - The action of concealing details in software and revealing only necessary information.
68. **Plugin** - Extra functionality in software that can be added by users independently.
69. **Event** - A signal of any action or occurrence within software.
70. **Configuration** - Referring to the settings and options of software.
71. **Query** - A question or request to search for data or information in software.
72. **Validity** - The state of quality of a variable or data in software.
73. **Structure** - Description of various components and their relationships within software.
74. **SDLC** - Description of the software development process.
75. **Prototyping** - The activity of creating a small prototype in software development to make necessary improvements.
76. **Modularity** - The action of organizing various components into separate modules in software development.
77. **Refactoring** - The action of improving software code to enhance its quality and security.
78. **Encapsulation** - The action of keeping data and its related functions secure in software.
79. **Back-end** - The hidden part in web development managed by the server from the user's perspective.
80. **Front-end** - The visible part in web development that can be seen by users.
81. **Repository** - A place to store software code.

82. **Version Control** - The action of managing versions of software code.
83. **Compiler** - The action of converting high-level programming language to its binary form.
84. **Interpreter** - The action of running high-level programming language without converting it to binary form.
85. **Parser** - The action of analyzing the structure of code in software.
86. **Buffer Overflow** - Security vulnerability in software caused by taking excessive data in a buffer.
87. **Bug** - Failure or flaw in software.
88. **Error** - Failure or flaw in software.
89. **Vulnerability** - Security gap in software that can endanger user data.
90. **Misuse** - The action of using software contrary to its intended purpose.
91. **Protocol** - Rules and sequence for communication in software.
92. **Aesthetics** - The action of considering beauty and attractiveness in software design and user experience.
93. **Research** - Study and research for the development of new technologies and elements.
94. **Deployment** - The action of preparing software for use.
95. **Testing** - The action of identifying and fixing errors in software.
96. **Profiling** - Analyzing data for performance and optimizations in software code.
97. **Scaling** - The action of preparing software for the largest users and loads.
98. **Cybersecurity** - The action of keeping software and related elements secure on computers and the internet.
99. **Logging** - The action of recording actions and timestamps in software.
100. **Encryption** - The action of transforming data or information into a coded form in software.

## **9. DATA BASE**

1. **Database** - A structured set for storing and managing data.
2. **Table** - A structured way in a database to organize data in rows and columns.
3. **Record** - A specific set of data stored as a unit in a database.
4. **Schema** - A collection of the structure of a database and details of the elements included in it.
5. **Storage** - The action of storing data in a database.
6. **Primary Key** - A unique identifier in a table that uniquely identifies each record.
7. **Foreign Key** - Records in another table related to the primary key given in a table.
8. **Application** - A program or software used by users to access the database.
9. **SQL (Structured Query Language)** - A language used to work with relational databases.
10. **Index** - A special element to increase the speed of accessing data in a database.
11. **Database Management System (DBMS)** - Software used to operate and manage a database.
12. **Database Administration** - The activity of managing and administering a database.
13. **Backup** - The action of creating a copy of data in a database for data security.
14. **Multivalued Dependency** - Relationships between more than one field in a table in a database.
15. **Database Design** - The creation and development of the structure of a database.
16. **Database Engine** - The main component of a database management system for operating and using the database.
17. **Access Control** - The action of controlling access to data in a database.
18. **Extraction** - The action of retrieving data from a database.
19. **Database Sharding** - The action of managing a large database by dividing it into smaller segments.
20. **Database Operations** - The action of changing and updating data in a database.
21. **Error Handling** - The action of identifying and rectifying errors in a database.
22. **Database Distribution** - The action of storing database data in different locations.
23. **Exploration** - The thought process and experimentation by administrators to access data in a database.
24. **Agent** - A person or software that allows access to and management of data in a database.

25. **Database Update** - The action of adding new information or modifying existing information in a database.
26. **Traversal** - The action of navigating the data structure in a database from one point to another or examining it.
27. **View** - A representation of the data structure available in a database that users can see.
28. **Normalization** - The action of restructuring and organizing data in a database.
29. **Data Abstraction** - The presentation of data at a higher level that users see.
30. **Database Transaction** - A group of one or more data changes processed at a reference time in a database.
31. **Trigger** - A database event that activates a specific action that can trigger another action.
32. **Transaction Management** - The action of managing database transactions.
33. **Database Audit** - The action of creating logs for a database and conducting sensitive checks.
34. **Table Specification** - A list of fields included in a table in a database and their specifications.
35. **Database Migration** - The action of transferring database data and structure from one location to another.
36. **Concurrency** - Permission for data access by more than one user at a time in a database.
37. **Connectivity** - Relationships between different elements of a database that organize data.
38. **Data Mastering** - The action of cleaning and modifying data in a database when specification is required.
39. **Data Disposal** - The action of removing unwanted or obsolete data from a database.
40. **Consistency** - The state of structured data in a database.
41. **Object Database** - A database where data is stored as objects.
42. **Web Database** - A database designed for use with web applications and servers.
43. **Database Security** - The action of ensuring the security of a database.
44. **Concurrency Control** - The action of granting access to data to multiple users at the same time in a database and preventing errors.
45. **Database Optimization** - The action of improving database performance.
46. **Data Warehousing** - The action of storing data in a database from various sources.
47. **Data Batching** - The action of inserting multiple records or data into a database at once.
48. **Personalization** - The action of customizing data in a database according to user-specific needs and preferences.
49. **Snapshot** - A picture or state of data in a database at a specific time.
50. **Data Signaling** - Signals used to change and interpret data in a database.
51. **Database Trigger** - A database event that has a consequential effect and is activated automatically.
52. **Blockchain** - A database technology that stores data in blocks and traces the history back to its origin.
53. **Non-Relational Database** - A database technology that changes data from a point-of-view perspective.
54. **Database Administrator** - An individual who manages various aspects of a database.
55. **Database Journaling** - The action of logging database changes into a log.
56. **Database Snapshot** - A snapshot or state of a database at a specific time.
57. **Database Connection** - The action of managing data to and from a database server through a network.
58. **Database Backup** - The action of creating a copy for the security of data and structure in a database.
59. **Subject-Oriented Database** - A database where subjects are stored with their attributes.
60. **Database Constraint** - Rules imposed in a database to ensure data integrity.
61. **Database Sharing** - The action of sharing database and stored data access with multiple users.
62. **Database Schema** - The structure or framework of a database.
63. **Data Selection** - The action of selecting specific data from a database.
64. **Database Replication** - The action of creating duplicates of data in multiple locations to ensure data consistency.
65. **Database Virtualization** - The action of using the database structure in an unprecedented manner.
66. **Database Update** - The action of adding new information or modifying existing information in a database.
67. **Database Integration** - The action of consolidating data from different sources into a database.
68. **Database Model** - An ideal used to structure and organize data in a database.
69. **Database Archiving** - The action of storing unused data in a database.

70. **Database Replication** - The action of creating duplicates of data and sharing it with other databases.
71. **Big Data** - A large volume of data that traditional database users cannot review.
72. **Database Security** - The action of ensuring the security of a database.
73. **Data Transfer** - The action of moving data from one location to another in a database.
74. **Database Function** - The action of processing multiple data or records together in a database.
75. **Database Statistics** - Figures representing different aspects of a database indicating how the database is being used.
76. **Database Imagination** - The action of envisioning professional representation of data in a database.
77. **Database Design** - The creation and development of the structure of a database.
78. **Database Size** - The quantity of data stored in a database.
79. **Database Organization** - The action of structuring data in an organized manner in a database.
80. **Database Transaction** - The action of grouping multiple data changes happening at the same time in a database.
81. **Database Sharing** - The action of sharing database data with multiple users.
82. **Database Control** - The action of controlling the usage, access, and structure of data in a database.
83. **Database Service** - The action of providing access to data and managing it for database users.
84. **Database Newsletter** - A publication providing updates and news on database topics.
85. **Database Store** - The action of storing data in a database.
86. **Database Encyclopedia** - A concise publication providing information and details on database topics.
87. **Database Migration** - The action of transferring data and structure of a database from one location to another.
88. **Database Introspection** - The action of examining stored data and details in a database.
89. **Database Management** - The action of structuring, organizing, and managing data in a database.
90. **Database Analytics** - The action of analyzing stored data to make predictions and find patterns.
91. **Database Retrieval** - The action of retrieving data from a database.
92. **Database Profiling** - The action of identifying estimated characteristics of data in a database.
93. **Database Maintenance** - The action of ensuring the structure, security, and performance of a database.
94. **Database Logging** - The action of recording database changes into a log.
95. **Database Bound** - The action of restricting a database to a specific number or data record.
96. **Database Dashboard** - A basic display for visualizing data and details from a database.
97. **Database Analytics** - The action of analyzing data from a database.
98. **Database ESCROW** - The action of keeping a third party to secure database changes.
99. **Database Repository** - A place where data and details of a database are stored.
100. **Database Review** - The action of reviewing the design, structure, and management of a database.



## **10. SOFTWARE TESTING**

1. **Testing** - The action of evaluating the quality, compatibility, and functionality of software.
2. **Test Plan** - A specific strategy or plan for software testing.
3. **Requirement** - A list of specifications, functions, and goals of software.
4. **Feature** - A characteristic of software that is significant for users.
5. **Test Script** - A script or written instructions for test scenarios.
6. **Defect** - An error, fault, or failure in software.
7. **Integration Testing** - The action of testing various components of software together.
8. **Acceptance Testing** - The action of validating software by users for acceptance.
9. **Regression Testing** - The action of re-running various test cases after a change in software.
10. **Stress Testing** - The examination of software's ability to function beyond its limits.
11. **Reliability** - The ease, trustworthiness, and stability of software.
12. **Usability Testing** - The evaluation of software's usability, convenience, and ease of use.
13. **Debugging** - The process of finding and fixing errors in software.
14. **Test Suite** - A collection of organized test cases.
15. **Post-Build Testing** - The testing process after software construction.
16. **Impact Testing** - The examination of the resulting impact of a change in software.
17. **Management** - The planning, scheduling, and management of software testing.
18. **Planning and Scheduling** - The planning, program, and scheduling of software testing.
19. **Quality Testing** - The examination of software quality, compatibility, and functionality.
20. **Support** - Assistance and support for software testing.
21. **Structured Testing** - A structured methodology for software testing based on specific features and predefined standards.
22. **Metric** - Standards used to measure the results of software testing.
23. **Arrangement** - The organization and management of test suite for software testing.
24. **Requirement Analysis** - The analysis and understanding of requirements for software testing.
25. **Role** - The role or function of individuals or groups involved in software testing.
26. **Update** - The action of updating the progress of software testing.
27. **Test Report** - Documentation of the results of software testing.
28. **Recovery** - The action of repairing or restoring broken parts of software.
29. **Methodology** - The method or approach used for software testing.
30. **Test Process** - The method or process of software testing.
31. **Configuration Manager** - The person who manages the configuration and arrangement of software testing.
32. **Calculation** - The action of measuring and calculating the results of software testing.
33. **Commitment** - Dedication and support in software testing.
34. **Legal Testing** - The testing of software according to rules, laws, and standards.
35. **Principle** - The fundamental principles and rules of software testing.
36. **Imitation** - Mimicry or emulation for software testing.
37. **Code of Conduct** - Rules and code of conduct for software testing.
38. **Updatability** - The plan and structure for updating software.
39. **Supporter** - Someone who supports and assists in software testing.
40. **Test Coverage** - The portion of code covered by test cases in software testing.
41. **Control Indicator** - Checks or structures controlled in software testing that can affect the results.
42. **Data Generation** - The automatic generation of necessary test data for software testing.
43. **Maintainability** - The examination of software's updateability, maintainability, and improvement capability.
44. **Robustness** - The examination of software's capability to function with anticipated errors.



- 45. **Consolidated Software Archive** - The collection and preservation of aggregated testing features for software testing.
- 46. **Data Analysis** - The analysis of results and evaluation of features in software testing.
- 47. **Trigger Indicator** - A signal used to automatically initiate test cases in software testing.
- 48. **Relevance** - The examination of the relationship between test cases and features in software testing.
- 49. **Test Resource** - A concise term for resources, tools, and features used in software testing.

## **11. THEORY OF COMPUTATION**

- 1. **Automaton** - A self-operating machine used in related principles.
- 2. **Finite Automaton** - A self-operating machine with a fixed number of states.
- 3. **Turing Machine** - A universal machine used in related principles.
- 4. **Halting Problem** - A specific problem posed for a Turing machine.
- 5. **Decision Problem** - Problems that require yes/no answers.
- 6. **Logical Inference** - The process of obtaining conclusions using rules.
- 7. **Boolean Function** - Provides a Boolean partition for different numerical differences.
- 8. **Prime Numbers** - Numbers that leave no remainder when divided only by 1 and themselves.
- 9. **Structured Inference** - Specific methods for making inferences.
- 10. **Integer Numbers** - Whole numbers without any decimal fraction.
- 11. **Relational Problem** - The process of identifying relationships between two different problems.
- 12. **Composite Numbers** - Numbers that leave different factors other than themselves.
- 13. **Undecidable Number** - A number whose nature cannot be determined.
- 14. **Knowledge Numbers** - Numbers capable of predicting other numbers.
- 15. **Inference Rule** - Rules or sets of rules for obtaining new insights.
- 16. **Boolean Partition** - The process of dividing data items into two different groups.
- 17. **Specific Numbers** - Certain specific numbers capable of predicting numbers.
- 18. **Related Conjecture** - An assumption of relationship between two different problems.
- 19. **Number Theory** - The mathematical calculation and study of integers.
- 20. **Inference Conjecture** - Assumptions of new insights.
- 21. **Conjecture-Based** - Technique or process based on conjecture for a specific problem.
- 22. **Number Proof** - The process of proving number integrity.
- 23. **Decision Rule** - Rules or sets of rules for making decisions.
- 24. **Number Paradox** - Presence of contradiction in mathematical number theory.
- 25. **Number Dialogue** - Dialogue between numerical numbers.
- 26. **Conjecture Sequence** - Sequential assumptions for a conjectural problem.
- 27. **Relational Inference** - Obtaining relationships between two different problems.
- 28. **Inference Theorem** - Rules or sets of rules to obtain new insights.
- 29. **Knowledge Inference** - Process of obtaining new knowledge.
- 30. **Number Type** - Different types of numbers like natural numbers, integers, irrational numbers, etc.
- 31. **Logical Conjecture** - Conjectural problems based on logic.
- 32. **Inference Directive** - Guidelines or rule sets for obtaining new insights.
- 33. **Knowledge Numbers** - Numbers that yield knowledge.
- 34. **Number Progression** - Process of the arrival of numbers.
- 35. **Logical Theorem** - Rules or sets of rules based on logic.
- 36. **Number Present** - Process of obtaining numbers at a specific time.
- 37. **Related Inference** - Obtaining relationships between two different problems.
- 38. **Inference-Based** - Technique or process based on inference for conjectural problems.
- 39. **Directive Numbers** - Numbers that provide directions on how to obtain numbers.

- 40. **Practical Numbers** - Numbers capable of being obtained.
- 41. **Conjecture Dialogue** - Dialogue between conjectural problems.
- 42. **Number Inference** - The process of obtaining numbers.
- 43. **Logical Progression** - Process of logical inference.
- 44. **Scientific Numbers** - Numbers obtained through science.
- 45. **Logical Numbers** - Numbers capable of logical inference.
- 46. **Inference Theorem** - Rules or sets of rules to obtain new insights.
- 47. **Directive Directory** - Directory for obtaining directive numbers.
- 48. **Knowledge Conjecture** - Process of obtaining new knowledge.
- 49. **Number Resistance** - Process of resistance against obtaining numbers.
- 50. **Logical Number** - A number capable of logical inference.

## **12. VIRTUALIZATION**

- 1. **Virtualization** - Creation of multiple virtual machines on a host computer optionally.
- 2. **Virtual Machine** - Multiple optional machines running on a host computer.
- 3. **Physical Machine** - A host computer with actual and minimal virtualization resources.
- 4. **Hypervisor** - Software used to manage and control virtual machines.
- 5. **OS Virtualization** - Creation of multiple virtual operating systems under a host operating system.
- 6. **Full Virtualization** - Virtual machines that completely abstract hardware-related services.
- 7. **Traditional Virtualization** - Traditional method of creating virtual machines via a hypervisor.
- 8. **Para-virtualization** - Capability to collaborate with hardware in creating virtual machines.
- 9. **Network Virtualization** - Creation of multiple virtual networks under a host network.
- 10. **Storage Virtualization** - Usage of storage in the form of consolidated resources under various physical resources.
- 11. **Hardware Virtualization** - Method of freeing virtual machines with hardware resources optionally.
- 12. **Virtual Machine Monitor** - Hypervisor managing virtual machines.
- 13. **Host Machine** - Physical computer hosting virtual machines.
- 14. **Guest Machine** - Virtual machine running under a host machine.
- 15. **Resource Pool** - Group of shared resources for multiple virtual machines.
- 16. **Virtual Machine Image** - Preconfigured image of operating system and software for a virtual machine.
- 17. **Virtual Desktop** - Multiple desktops under virtualized operating systems.
- 18. **Bare-Metal Hypervisor** - Hypervisor running directly on hardware above an operating system.
- 19. **Virtual Network Interface** - Optional network interface for a virtual machine.
- 20. **Network Bridge** - Tool for connecting virtual networks to physical networks.
- 21. **Instantiation** - Process of creating a new instance for a virtual machine.
- 22. **Virtual Network** - Creation of multiple virtual networks under a physical network.
- 23. **Reverse Virtualization** - Process of migrating a virtual machine to a physical machine.
- 24. **Virtual Disk** - Disk with limited resources shared for a virtual machine.
- 25. **Emulation** - Imitation of data and services of one entity under another.
- 26. **Host Operating System** - Operating system running above a hypervisor.
- 27. **Virtual Ethernet Address** - Optional Ethernet address for a virtual machine.
- 28. **Virtual Router** - Hardware or software used to manage and control virtual networks.
- 29. **Enhanced Virtualization** - Hardware supporting virtual machines with para-virtualization.
- 30. **Operating System Migration** - Integration of virtual machine resources from one host machine to another.
- 31. **Transitional Virtualization** - Support for process migration of virtual machine resources from one entity to another.
- 32. **Quantum Virtualization** - Process of numerically distributing virtual machines across grid nodes.

33. **Resource Sharing** - Process of utilizing shared resources between virtual machines.
34. **Provisioning** - Process of deploying new virtual machines and managing them.
35. **Resource Control** - Capability to control the usage of resources for virtual machines.
36. **Storage Array** - Group of consolidated storage resources.
37. **Virtual Server** - Server operating as a virtual machine.
38. **Virtualization Disk Image** - Disk image with limited resources for a virtual machine.
39. **Storage Virtualization** - Process of managing various storage resources in a consolidated manner.
40. **Resource Pooling** - Utilization of a shared group of resources to provision virtual machines.
41. **Reversible Virtualization** - Capability to migrate virtual machines between entities.
42. **Virtual Network Switch** - Hardware or software connecting virtual networks.
43. **Virtual Desktop Infrastructure** - Structured infrastructure for managing and providing virtual desktops.
44. **Virtual Application** - Software applications running as virtual machines.
45. **Virtual Machine Console** - Graphical user interface for a virtual machine.
46. **Resource Configuration** - Process of configuring a group of resources for virtual machines.
47. **Coordination** - Ability to coordinate resources between virtual machines.
48. **Storage Pooling** - Process of utilizing a shared group of storage resources.
49. **Virtual Storage** - Shared storage resources for virtual machines.
50. **Virtualization Specificity** - Ability to use specific resources for virtual machines.
51. **Virtual Machine Instruction Set** - Set of operations available for virtual machines.
52. **Modified Virtualization** - Capacity to emancipate virtual machines as modified virtualization.
53. **Resource Structuring** - Process of organizing resources between virtual machines.
54. **Virtual Resource Categorization** - Process of categorizing virtual machines for various resources.
55. **Virtual Resource Management** - Capacity to manage resources of virtual machines.
56. **Resource Virtualization Infrastructure** - Structured infrastructure for virtualizing resources.
57. **Virtual Machine Cloning** - Process of making a copy of an existing virtual machine.
58. **Virtual Application Service** - Software applications available for virtual machines.
59. **Manageability** - Ability to operate and manage virtual machines.
60. **Virtualization Framework** - Process of structuring and managing virtualization.
61. **Virtual Storage Network** - Process of establishing relationships between restricted storage resources.
62. **Science Virtualization** - Process of using virtualization in scientific organizations.
63. **Modified Science Virtualization** - Process of exposing scientific organizations to virtual machines with modified virtualization.
64. **Virtual Machine Control** - Ability to control virtual machines.
65. **Virtual Machine Provisioning** - Process of provisioning new virtual machines.
66. **Inspirational Resource** - Ability to use inspirational resources for virtual machines.
67. **Virtualization Adaptation** - Process of adapting virtual machines with changing resources.
68. **Resource Duplication** - Process of duplicating resources for virtual machines.
69. **Architectural Virtualization** - Process of designing virtual machines with virtualization infrastructure.
70. **Unified Virtualization** - Process of organizing resources in a unified manner.
71. **Virtual Machine Migration** - Process of migrating virtual machines from one host to another.
72. **Virtual Communication Categorization** - Process of categorizing virtual machines for communication.
73. **Communication Virtualization** - Process of using virtual machines for communication.
74. **Resource Virtualization Suitability** - Process of suitability of resources for virtual machines.
75. **Virtualization Policy** - Set of policies related to virtualization structure and operation.
76. **Resource Virtualization Analysis** - Process of analyzing resources for virtual machines.
77. **Virtual Machine Template** - Ideal basis for creating new virtual machines.
78. **Virtual Machine Affinity** - Process of related resources for virtual machines.

79. **Modified Virtualization Adaptation** - Process of adapting virtual machines with modified virtualization to changing resources.
80. **Resource Configuration** - Process of arranging groups of resources for virtual machines.
81. **Coordination** - Ability to coordinate resources between virtual machines.
82. **Virtual Machine Resource Limits** - Maximum limits of resources given to virtual machines.
83. **Virtual Application Switch** - Network switch for connecting virtual machines to various software applications.
84. **Virtual Instrumentation** - Process of using virtual machines for specialized laboratory instruments.
85. **Virtual Machine Administration** - Management tasks for virtual machines.
86. **Modified Virtualization Resource** - Changing resources for virtual machines with modified virtualization.
87. **Resource Virtualization Update** - Process of updating resources for virtual machines.
88. **Constricted Virtualization** - Process of using virtual machines with restricted resources.
89. **Virtual Communication** - Ability to communicate between virtual machines.
90. **Resource Allocation** - Allocation of resources for virtual machines.
91. **Virtual Machine Partitioning** - Process of dividing virtual machines into groups.
92. **Virtual Machine Management** - Ability to manage virtual machines.
93. **Resource Virtualization Role** - Determining the role of resources for virtual machines.
94. **Virtual Storage Arrangement** - Process of organizing groups of resources for virtual machines.
95. **Virtual Image Option** - Process of selecting available options for virtual machines.
96. **Modified Virtualization Format** - Process of changing the format of virtual machines with modified virtualization.
97. **Virtual Operation** - Ability to operate between virtual machines.
98. **Resource Modification** - Process of modifying resources for virtual machines.
99. **Virtual Machine Isolation** - Process of isolating virtual machines to avoid impact on one machine's operation by another.
100. **Modified Virtualization Framework** - Process of changing the virtualization framework with modified virtualization.

## **13. CLOUD COMPUTING**

1. **Cloud Computing** - A technical service for storage, processing, and utilization of resources on the internet.
2. **Public Cloud** - A service managed by a reputable provider for an organization.
3. **Private Cloud** - A service dedicated and managed by an organization.
4. **Hybrid Cloud** - Integration of public and private cloud services.
5. **Integrated Cloud** - Integration of content or services across different clouds.
6. **Cloud Resource** - Resources available for structured storage, service, or processing.
7. **Web Service** - Internet service for accessing resources in the cloud.
8. **Cybersecurity** - Technical processes and measures to secure cloud systems.
9. **Data Encryption** - Process of rendering data unreadable for security purposes.
10. **Content Delivery Network** - Network used to deliver data efficiently.
11. **Data Center** - Large organization that operates cloud services.
12. **Virtualization** - Consolidation of multiple computer resources.
13. **Service Level Agreement** - Agreement between service provider and customer.
14. **Scalability** - Ability to scale services or resources.
15. **Elasticity** - Contraction or expansion of resources based on demand.
16. **Immutability** - Maintaining cloud resources without change.
17. **Natural Resource Provisioning** - Capacity to automatically provide resources.
18. **Immutable Resources** - Resources that cannot be altered.
19. **Integrated Cloud Services** - Integration of various services.
20. **Long-Term Organizational Smartness** - Ability to use cloud services diligently and for an extended period.
21. **Virtual Desktop** - Process of making computer functionality available virtually in the cloud.
22. **Wireless Resource Provisioning** - Process of provisioning resources via wireless network.



23. **Path Identifier** - Network protocol for identifying routes to data resources.
24. **Internal Cloud** - Cloud established within an organization.
25. **Resource Autonomy** - Permission for resources to be used independently.
26. **Virtual Machine** - Machine created through virtualization.
27. **Structured Resource Network** - Network for organized resource management.
28. **Cloud Data Architecture** - Process of organizing data in cloud resources.
29. **Automated Rollout** - Automated process of resource deployment.
30. **Enterprise Computing** - Business-oriented cloud service for organizations.
31. **Data Adaptability** - Capacity to tailor data according to resources and services.
32. **Distributed Resource Network** - Network for distributing resources.
33. **Wireless Enterprise Resources** - Capacity to provide resources wirelessly within an organization.
34. **Automated Resources** - Capacity to manage resources automatically.
35. **Cloud Resource Utilization** - Process of utilizing cloud resources.
36. **Cloud Provider** - Organization providing cloud services.
37. **Data Addressability** - Capacity to identify and access data.
38. **Cloud Resource Orchestration** - Process of organizing cloud resources.
39. **Enterprise Administration** - Process of administrating cloud services for an organization.
40. **Abnormal Escalation** - Development of improper heights in cloud services.
41. **Automated Deployment** - Automated process of resource application.
42. **Adaptive Scaling** - Capacity to scale resources automatically.
43. **Autonomous Cloud** - Capacity for resources to be used automatically.
44. **Content Distribution Network** - Network used to distribute data efficiently.
45. **Autonomously Orchestrated Network** - Network for autonomously organizing resources.
46. **Automated Resource Provisioning** - Capacity to provision resources automatically.
47. **Resource Numbering Plan** - Process of numbering resources.
48. **Automated Network** - Capacity to manage networks automatically.
49. **Enterprise Numbering Plan** - Process of numbering enterprise resources.
50. **Structured Cloud Resource Utilization** - Capacity to utilize cloud resources in an organized manner.
51. **Scaling Cloud Resource** - Process of expanding or reducing cloud resources.
52. **Network Addressability** - Capability to identify and reach networks.
53. **Cloud Distribution** - Process of distributing cloud resources.
54. **Divisibility** - Capability to divide resources.
55. **Autonomous Cloud Resource** - Resources that act autonomously.
56. **Cloud Orchestrated** - Process of organizing cloud resources.
57. **Number Allocation** - Process of numerically allocating resources.
58. **Related Service** - Interconnectedness between different services.
59. **Public Cloud Resource** - Public resources managed by a trusted provider.
60. **Private Cloud Resource** - Resources dedicated and managed by an organization.
61. **Automated Resource Orchestration** - Process of autonomously organizing resources.
62. **Internal Cloud Resource** - Internal resources established within an organization.
63. **Divisibility** - Capability to divide resources.
64. **Autonomous Numbering Plan** - Process of autonomously assigning numerical allocations to resources.
65. **Structured Resource Group** - Process of structurally grouping resources.
66. **Cloud Reliability** - Capability of cloud services to be reliable.
67. **Divisibility Numbering Plan** - Process of numerically allocating resources with divisibility.
68. **Automatically Distributed** - Capability to distribute resources automatically.



69. **Resource Relatedness** - Capability of relatedness between resources.
70. **Distributed Numbering Plan** - Numerical plan for distributing resources.
71. **Autonomously Orchestrated Network** - Automatically organized network of resources.
72. **Misuse Numbering Plan** - Process of numerically allocating resources for misuse.
73. **Automated Related Service** - Automatically related services.
74. **Continuous Cloud Resource** - Resources that operate continuously.
75. **Resource Distributed Network** - Network with the capability of distributing resources.
76. **Abnormal Growth** - Process of abnormal growth in cloud services.
77. **Distributed Relatedness** - Distributed relatedness between resources.
78. **Divisibility Relatedness** - Divisibility relatedness between resources.
79. **Automated Scaling** - Capability to scale resources automatically.
80. **Number Assignment** - Process of numerically assigning resources.
81. **Automated Related Resource** - Automatically related resources.
82. **Cloud Enterprise** - Cloud services for an organization.
83. **Automated Distribution** - Capability to distribute resources automatically.
84. **Resource Resource** - Capability to distribute resources through resources.
85. **Internal Resource Number** - Numerical resource established within an organization.
86. **Related Network Resource** - Network-related resources.
87. **Automated Divisibility** - Capability to divide resources automatically.
88. **Distributed Resource Number** - Resource number with the capability of distribution.
89. **Compatibility** - Compatibility with various resources and services.
90. **Automated Distribution Number** - Distribution number with the capability of automatic distribution.
91. **Reliable Resource Orchestration** - Capability of orchestrating resources reliably.
92. **Resource Distributed Service** - Service with the capability of distributing resources.
93. **Automatically Distributed Network** - Network with the capability of automatic distribution.
94. **Resource Related Resource** - Resource related through resources.
95. **Enterprise Resource Utilization** - Process of utilizing resources for an organization.
96. **Automated Divisibility Number** - Capability of automatic divisibility with numbers.
97. **Private Resource Related Resource** - Related resources through private resources.
98. **Automated Distribution Service** - Service with the capability of automatic distribution.
99. **Resource Resource Distributed** - Capability of distributing resources through resources.
100. **Distributed Scaling** - Capability of scaling resources distributedly.

## **14. ARTIFICIAL INTELLIGENCE (AI)**

1. **Artificial Intelligence (AI)** - A branch of computer science that develops intelligence for machines to mimic human intelligence.
2. **Machine Learning** - A technique that uses algorithms to automatically learn and adapt from data.
3. **Deep Learning** - A specialized form of machine learning in which computers learn through layers of neural networks.
4. **Neural Network** - A machine learning model that operates similar to the human neuron.
5. **Natural Language Processing (NLP)** - The technique of enabling computers to understand and communicate in human language.
6. **Computer Vision** - The technique of enabling computers to recognize objects in visual context.
7. **Expert System** - An AI system that assists in creating expert knowledge and making deductions.
8. **Reinforcement Learning** - A technique of learning through feedback, allowing systems to learn on their own.
9. **Cognitive Computing** - An AI technique that mimics human cognitive processes.
10. **Speech Recognition** - The technique of understanding and identifying speech sounds.
11. **Autonomous Vehicles** - Vehicles that operate and navigate to designated locations autonomously.

12. **Data Mining** - The process of extracting insights and patterns from large datasets.
13. **Genetic Algorithm** - An AI technique that uses the concept of natural selection.
14. **Data Science** - The science of collecting, structuring, analyzing, and interpreting data.
15. **Robotics** - The study and development of machines' autonomous activities.
16. **Decision Tree** - A specific type of graphical model that aids in decision-making.
17. **Sentiment Analysis** - The process of understanding users' sentiments by analyzing language tones.
18. **Virtual Assistant** - An AI system that operates as a human assistant.
19. **Swarm Intelligence** - An AI technique of working collaboratively with machines in a group.
20. **Knowledge Representation** - The technique of storing knowledge in a way suitable for AI systems.
21. **Data Science** - The science of collecting, structuring, analyzing, and interpreting data.
22. **Robotics** - The study and development of machines' autonomous activities.
23. **Algorithm** - A set of instructions established to accomplish a specific task.
24. **Chatbot** - An AI program designed to interact automatically.
25. **Computer Aided Design (CAD)** - Technique using computers in the design process.
26. **Regression Analysis** - Technique of deriving insights and predictions from data.
27. **Algorithmic Trading** - Technique of trading in the stock market using algorithms.
28. **Internet of Things (IoT)** - Technique of sharing data through various devices and interconnections.
29. **Cloud Computing** - Technique of using services and resources over the internet.
30. **Augmented Reality** - Technique of overlaying data and information onto reality.
31. **Algorithmic Bias** - Inequality in algorithms showing fairness or unfairness.
32. **Edge Computing** - Technique of sending data closer to resources.
33. **Quantum Computing** - Technique of computation using quantum bits.
34. **Supervised Learning** - A type of machine learning with guidance and supervision.
35. **Unsupervised Learning** - A type of machine learning without guidance.
36. **Artificial Neural Network (ANN)** - An AI model based on the structure of human neurons.
37. **Bias-Variance Tradeoff** - The process of balancing stability and responsibility of a model.
38. **Transfer Learning** - Ability to learn in one domain and apply it to another.
39. **Explainable AI** - An AI system easily understandable by humans.
40. **Adversarial Machine Learning** - Technique of misleading models by adversary mechanisms.
41. **Ensemble Learning** - Technique of combining various models for better learning.
42. **Principal Component Analysis (PCA)** - Technique of reducing data to its most important features.
43. **Hyperparameter** - Parameters set to tune the model.
44. **Blockchain** - A technique for secure data storage in a network.
45. **Self-Supervised Learning** - Technique of using the model to learn on its own.
46. **Exponential Smoothing** - Technique of improving changing data over time.
47. **Heuristic** - Instructions used to provide quick and simple solutions.
48. **Batch Processing** - Technique of completing data at once.
49. **NLP Preprocessing** - Technique of cleaning data in the natural language processing process.
50. **Random Forest** - An ensemble technique with a group of trees making decisions together.
51. **Recurrent Neural Network (RNN)** - A type of neural network that processes data in sequences.
52. **Fuzzy Logic** - A technique for making decisions based on vagueness and uncertainty.
53. **Overfitting** - A condition where a model is excessively tailored to the training data and performs poorly on new data.
54. **Support Vector Machine (SVM)** - An efficient supervised learning technique.
55. **Internet Bot** - Programs designed to perform automated tasks on the internet.
56. **Metaheuristic** - An applied technique used to solve problems.
57. **Convolutional Neural Network (CNN)** - A type of neural network designed for processing images.

58. **Probabilistic Graphical Model** - A model used to depict relationships between data.
59. **Meta-Learning** - A system that can develop the ability to learn new skills.
60. **Biometric Authentication** - Technique for verifying an individual's physical identity.
61. **Adaptive Learning** - A technique of teaching tailored to students' needs.
62. **Bioinformatics** - The science of using technology in biology and genetics.
63. **Knowledge Graph** - A technical method of displaying information as elements and their relationships.
64. **Weak AI** - An AI system with limited capabilities designed for specific tasks.
65. **Semantic Segmentation** - Technique for dividing images into different segments.
66. **Exascale Computing** - Computing systems with extremely high speed and capacity.
67. **Explainable AI** - An AI system designed for easy human understanding.
68. **Bayesian Inference** - Technique for making conclusions using probabilistic reasoning.
69. **Homomorphic Encryption** - A technical solution for securing data.
70. **Evolutionary Algorithm** - Technique for deriving conclusions from natural processes.
71. **Transfer Function** - Calculation describing the relationship between a system's input and output.
72. **Ensemble Model** - A combined approach gathering various models.
73. **Gradient Descent** - An optimization technique used to improve models.
74. **Deep Reinforcement Learning** - A learning technique where learning occurs through direct competition.
75. **Capsule Network** - A neural network designed to better determine features of images.
76. **Automated Machine Learning (AML)** - Technique for automatically optimizing models and hyperparameters.
77. **Differential Privacy** - Technical method for preserving individual privacy when sharing data.
78. **Hardware Accelerator** - Technique using hardware directly to increase model speed.
79. **One-Shot Learning** - Technique where a model learns directly from a single example.
80. **Ordinal Regression** - Technique for categorizing data into ordered categories.
81. **Imbalanced Dataset** - A dataset with unequal numbers of different categories.
82. **Word Embedding** - Technique for converting words into numbers for model understanding.
83. **Time Series Analysis** - Process of analyzing data that changes over time.
84. **Canonical Correlation Analysis** - Technique for calculating correlation between different datasets.
85. **Self-Organizing Map (SOM)** - Neural network designed to self-organize data.
86. **Monte Carlo Simulation** - Technique for estimating possible outcomes through imitation.
87. **Explainability vs. Interpretability** - Analysis of techniques for explaining and interpreting model decisions.
88. **Edge Computing** - Technical system for processing data on local devices.
89. **Quantum Computing** - Technical approach to computation using quantum mechanics.
90. **Reinforcement Learning Algorithm** - Algorithm used for learning through feedback.
91. **K-Means Clustering** - Inefficient technique for categorizing data into different clusters.
92. **Hierarchical Clustering** - Inefficient technique for categorizing data into a hierarchical system.
93. **Latent Semantic Analysis** - Technique for understanding the semantic essence of data.
94. **Manifold Learning** - Technique for preserving data's intrinsic dimensionality.
95. **Multi-Agent System** - Technique for working with multiple independent agents simultaneously.
96. **Nash Equilibrium** - State in game theory where no player can improve their decision.
97. **Perceptron** - Single-layer neural network.
98. **Random Walk** - Journey where the next step is decided based on chance.
99. **Stochastic Gradient Descent (SGD)** - Optimization technique where gradient updates are made for a small sample.
100. **Unsupervised Learning** - Technique allowing a model to independently discover patterns in data.

## 15. MACHINE LEARNING

1. **Machine Learning** - A branch of computer science that enables computer systems to learn and adapt autonomously.
2. **Supervised Learning** - A method that attempts to teach a model by providing specific input-output pairs.
3. **Unsupervised Learning** - A method that attempts to teach a model without specific output values.
4. **Semi-supervised Learning** - A method that attempts to teach a model with a small set of specified input-output pairs.
5. **Reinforcement Learning** - A method that attempts to teach a model through rewards and penalties.
6. **Neural Networks** - Deep learning models that operate in a manner similar to human neurons.
7. **Deep Learning** - A specialized type of machine learning that utilizes deep neural networks.
8. **Feature Engineering** - The process of creating appropriate and meaningful features from a dataset.
9. **Data Preprocessing** - The process of cleaning, structuring, and preparing data.
10. **Overfitting** - A problem that occurs when a model focuses too much on training data and fails to generalize to new data.
11. **Underfitting** - A problem that occurs when a model does not pay enough attention to training data and fails to make accurate predictions on new data.
12. **Bias-Variance Tradeoff** - A technique that attempts to balance a model between training and testing data to achieve good performance.
13. **Cross-Validation** - A process of evaluating the performance of a model using different subsets of data.
14. **Bias** - In neural networks, an element that introduces inaccuracy or error into the prediction.
15. **Variance** - In neural networks, an element that defines the variability of predictive accuracy across different perspectives.
16. **Gradient Descent** - A process of finding useful local directions to minimize a model's loss.
17. **Stochastic Gradient Descent** - A gradient descent method that attempts to minimize loss from a random subset.
18. **Batch Gradient Descent** - A gradient descent method that attempts to minimize loss from the entire training dataset.
19. **Mini-Batch Gradient Descent** - A gradient descent method that attempts to minimize loss from small subsets of data.
20. **Learning Rate** - The rate at which a model learns during gradient descent.
21. **Hyperparameters** - Model settings that can be adjusted during gradient descent.
22. **Activation Function** - A function used to activate the output of nodes in a neural network.
23. **Rectified Linear Unit (ReLU)** - A type of activation function that deactivates negative outputs.
24. **Sigmoid Function** - An activation function that limits outputs between 0 and 1.
25. **Mean Squared Error (MSE)** - A suitable loss function for measuring the quality of predictions.
26. **Cross-Entropy Loss** - A suitable loss function for measuring the ratio between model predictions and actual values.
27. **Variance** - An element in neural networks that determines the variability of the output of the activation across different perspectives.
28. **Regularization** - A technique useful for preventing overfitting in neural networks.
29. **Dropout** - A regularization technique that randomly disables some nodes in a neural network to combat overfitting.
30. **Convolutional Neural Network (CNN)** - A type of neural network that operates on images using convolutional operations.
31. **Recurrent Neural Network (RNN)** - A type of neural network suitable for processing time-series data.
32. **Long Short-Term Memory (LSTM)** - A type of recurrent neural network that helps understand long-term relationships.
33. **Support Vector Machine (SVM)** - A method suitable for classification and regression tasks.
34. **k-Nearest Neighbors (k-NN)** - A method suitable for classification based on the k nearest data points.
35. **Decision Tree** - A method that constructs a numerical decision tree to understand the prediction process.
36. **Random Forest** - A method that attempts to improve prediction by combining multiple decision trees.
37. **Naive Bayes** - A method that uses large numbers' rules to predict large numbers.
38. **Clustering** - A technique for dividing data into groups based on similarity.
39. **Principal Component Analysis (PCA)** - A technique for reducing data dimensionality by identifying principal components.
40. **Gradient Boosting** - A method that attempts to improve predictions by combining multiple decision trees.
41. **Natural Language Processing (NLP)** - A technique for computers to understand and work with human language.
42. **Word Embeddings** - A technique for representing words as vectors, useful in NLP.
43. **Named Entity Recognition (NER)** - A technique suitable for identifying entities like people, places, and organizations in text.
44. **Sentiment Analysis** - A technique for identifying sentiment and emotions in text, useful in NLP.
45. **Machine Translation** - A technique for automatically translating one language to another, useful in NLP.
46. **Sequence-to-Sequence (Seq2Seq)** - A type of NLP model that converts input sequences into output sequences.
47. **Reinforcement Learning** - A technique suitable for self-learning models.



48. **Generative Adversarial Network (GAN)** - A bidirectional network using a generator and discriminator for optimization.
49. **Transfer Learning** - A technique that uses knowledge from one domain to adjust a model directly for use in another domain.
50. **Ensemble Learning** - A technique that improves performance by combining multiple different models together.
51. **Bagging** - A technique that trains models on finely divided data sets.
52. **Boosting** - A technique that improves performance by retraining the model with errors.
53. **Hyperparameter Tuning** - Improving performance by adjusting the hyperparameters of the model.
54. **Grid Search** - A technique that searches for a set schedule for hyperparameters.
55. **Cross-Entropy** - A technique suitable for analyzing biographies between two divisions.
56. **Precision** - The number of correct positive predictions compared to the total positive predictions.
57. **Recall** - The number of positive predictions compared to the total actual positives.
58. **F1 Score** - A scoring metric under precision and recall.
59. **ROC Curve** - A graphical measure to show the balance between positive and negative predictions.
60. **AUC-ROC** - Measurement of the area under the ROC curve.
61. **Mean Absolute Error (MAE)** - An appropriate loss function to measure the quality of predictions.
62. **R Squared** - A measure for the quality of predictions.
63. **Mean Squared Logarithmic Error (MSLE)** - Another loss function for the quality of predictions.
64. **K-Fold Cross-Validation** - Technique for training and validating by dividing the data set into k parts.
65. **Learning Curve** - Analysis of training data set with model quality.
66. **Bias-Variance Tradeoff** - A technique that explains the balance between bias and variance.
67. **Overfitting** - The situation of decreased quality of predictions due to excessive influence on training data.
68. **Underfitting** - The situation of decreased quality of predictions due to less influence on training data.
69. **Data Augmentation** - Technique to increase the number of data in the training data set.
70. **Dropout Layer** - A type of layer in the model that uses dropout.
71. **Epoch** - A single training cycle to fully train the prediction data.
72. **Batch Size** - Number of samples in the training data to train the model at a time.
73. **Adam Optimizer** - A type of gradient optimizer suitable for training neural networks.
74. **Learning Rate Scheduler** - A technique that helps control the learning rate during gradient descent.
75. **Activation Function** - Function used to activate the output of a neural network.
76. **Backpropagation** - A process that adjusts the weights and biases of a neural network.
77. **Gradient Descent** - An optimization technique that adjusts the weights of a neural network.
78. **Loss Function** - A function appropriate for measuring the quality of a model.
79. **Cost Function** - Another term used for measuring the quality of a model.
80. **Early Stopping** - Technique to stop activity in the training process, useful for preventing overfitting.
81. **L1 Regularization** - A type of regularization that uses dividers to zero weights.
82. **L2 Regularization** - A type of regularization that uses dividers to reduce weights.
83. **Batch Normalization** - A technique suitable for better training of neural networks.
84. **Transfer Learning** - A technique that uses knowledge from one domain to another and adjusts the model for direct use.
85. **Word2Vec** - A technique suitable for representing words in vector form.
86. **One-Hot Encoding** - A technique suitable for representing categorical data in binary form.
87. **Cross-Validation** - A technique suitable for validating the quality of a model.
88. **Model Selection** - The process of selecting an appropriate model.
89. **Model Evaluation** - The process of evaluating the quality of a model.
90. **Model Deployment** - The process of putting a trained model into practical use.
91. **Data Preprocessing** - The process of preparing data for the model in a suitable form.
92. **Imputation** - The process of filling missing or incomplete data in the dataset.
93. **Outlier Detection** - The process of finding unusual or special data points.

- 94. **Feature Engineering** - The process of creating new indicators of features.
- 95. **Hyperparameter** - Parameters not defined at model construction time.
- 96. **Cost** - Expenses incurred for training model tools.
- 97. **Artificial Intelligence (AI)** - A type of intelligence of the machine designed to work similar to human intelligence.

## **16. INTERNET OF THINGS**

- 1. **Internet of Things (IoT)** - A technology that connects various objects and devices to the internet to make them interactive.
- 2. **Sensor** - A device that measures environmental changes and provides data.
- 3. **Actuator** - A device that takes action to respond to perceptible changes.
- 4. **IoT Platform** - A set of technical services for managing and aggregating IoT devices and data.
- 5. **Embedded System** - Small devices that can be embedded within electronic devices as a group.
- 6. **M2M (Machine to Machine)** - Technology for automatically updating data through inter-device communication.
- 7. **Edge Computing** - Technique for processing data near the devices.
- 8. **Fog Computing** - Technique similar to edge computing for processing data near the devices.
- 9. **Connectivity** - The ability to connect IoT devices to the internet and to each other.
- 10. **Wireless Sensor Network** - A network that connects sensors to each other without wires or other physical connections.
- 11. **IoT Protocol** - Rules and protocols for managing communication between IoT devices.
- 12. **IoT Security** - Technical measures for securing IoT devices and data.
- 13. **IoT Analytics** - Technique for analyzing IoT data and making predictions.
- 14. **Real-time Analytics** - The ability to analyze data immediately.
- 15. **Data Management** - The ability to store and manage data generated by IoT devices.
- 16. **Cloud Computing** - Technique for storing and processing IoT data on the internet.
- 17. **Firmware** - Software installed in devices that operates them.
- 18. **Machine-to-Person Communication** - Communication from IoT devices to individuals.
- 19. **Machine-to-Machine Communication** - Automated communication between IoT devices.
- 20. **Home Automation** - Technique for automating household devices.
- 21. **Smart City** - Technique for making a city smart using IoT devices.
- 22. **Wearable Devices** - Devices worn by individuals that collect and store data.
- 23. **Smart Grid** - Technical solution for making electricity distribution smart.
- 24. **Predictive Maintenance** - Technique for predicting machine maintenance using IoT devices.
- 25. **RFID (Radio Frequency Identification)** - Radio frequency identification technology that identifies devices from transmitted chips.
- 26. **Home Security System** - System that uses IoT devices for home security.
- 27. **Smart Home** - Home that provides automated amenities using IoT devices.
- 28. **Smart Appliances** - Modern appliances that are automated with IoT devices.
- 29. **Connected Cars** - Cars connected to the internet that share data and are automated.
- 30. **Precision Agriculture** - Technical solution for farming using IoT devices.
- 31. **Smart Retail** - Technical solution for retail using IoT devices.
- 32. **Industrial IoT** - Technique for automating industrial processes using IoT devices.
- 33. **Smart Energy Management** - Technique for energy conservation and management using IoT devices.
- 34. **Wearable Technology** - Devices worn by individuals that are filled with technology.
- 35. **Digital Twin** - IoT device that analyzes real objects or processes.
- 36. **5G Technology** - Technique for communication via the internet of the fifth generation.
- 37. **Smart Farming** - Technique for automating farming using IoT devices.
- 38. **Beacon Technology** - Technique for providing location-based services using IoT devices.

39. **Smart Healthcare** - Technique for automating medical services using IoT devices.
40. **Smart Grid** - Technical solution for making electricity distribution smart.
41. **Predictive Maintenance** - Technique for predicting machine maintenance using IoT devices.
42. **Home Security System** - System that uses IoT devices for home security.
43. **Smart Home** - Home that provides automated amenities using IoT devices.
44. **Smart Appliances** - Modern appliances that are automated with IoT devices.
45. **Connected Cars** - Cars connected to the internet that share data and are automated.
46. **Precision Agriculture** - Technical solution for farming using IoT devices.
47. **Smart Retail** - Technical solution for retail using IoT devices.
48. **Industrial IoT** - Technique for automating industrial processes using IoT devices.
49. **Smart Energy Management** - Technique for energy conservation and management using IoT devices.
50. **Wearable Technology** - Devices worn by individuals that are filled with technology.
51. **Digital Twin** - IoT device for analyzing real-world objects or processes.
52. **Smart Metering** - Technique of collecting and managing data from various meters using IoT devices.
53. **Energy Harvesting** - Technique for collecting energy from the environment.
54. **Smart Cities** - Technique of using IoT devices to make cities smart and advanced.
55. **IoT Architecture** - Framework of various elements of IoT devices.
56. **Home Automation** - Technique for automating household devices.
57. **Environmental Monitoring** - Technique for monitoring environmental changes.
58. **Location-based Services** - Technique for providing transportation services using IoT devices.
59. **Data Analytics** - Technique for analyzing data generated by IoT devices.
60. **Data Integration** - Technique for consolidating data generated by IoT devices.
61. **Data Visualization** - Technique for visualizing data generated by IoT devices.
62. **Internet of Everything (IoE)** - Connectivity of IoT devices with everything through the internet.
63. **Industrial Internet of Things (IIoT)** - Technique of using IoT devices in the industrial sector.
64. **Smart Grid** - Technological solution for making electricity distribution smart.
65. **Predictive Maintenance** - Technique of predicting maintenance of machines using IoT devices.
66. **Home Security System** - System using IoT devices for home security.
67. **Smart Home** - Home providing automated facilities using IoT devices.
68. **Smart Appliances** - Modern appliances that are automated with IoT devices.
69. **Connected Cars** - Cars connected to the internet that share data and are automated.
70. **Precision Agriculture** - Proper technological solutions for farming using IoT devices.
71. **Smart Retail** - Technological solutions for retail using IoT devices.
72. **Industrial IoT** - Technique of automating industrial processes using IoT devices.
73. **Smart Energy Management** - Technique of conserving and managing energy using IoT devices.
74. **Wearable Technology** - Wearable devices filled with technology.
75. **Digital Twin** - IoT device for analyzing real-world objects or processes.
76. **Smart Transportation** - Technique of providing smart transportation services using IoT devices.
77. **Wearable Health Monitoring** - Technique of health monitoring using IoT devices.
78. **Traffic Management** - Technique of managing traffic using IoT devices.
79. **Water Quality Monitoring** - Technique of monitoring water quality using IoT devices.
80. **Waste Management** - Technique of managing waste using IoT devices.
81. **Smart Governance** - Technique of smart governance using IoT devices.
82. **Cloud Computing** - Technique of storing and managing data and resources on the internet.
83. **Fog Computing** - Technique of storing and processing data on related devices.
84. **Edge Computing** - Technique of storing and processing data near devices.

85. **Artificial Intelligence (AI)** - Technique of creating and simulating reasoning systems of human intelligence.
86. **Machine Learning** - Technique of teaching machines from data and automating tasks.
87. **Big Data** - Technique of analyzing vast and complex data sets.
88. **Blockchain Technology** - Technique of securely and transparently storing information digitally.
89. **LoRa (Long Range)** - Radio-frequency communication protocol for long-range and energy-efficient communication.
90. **Zigbee** - Wireless mesh network protocol designed for low-power, low-data-rate, and short-range communication.
91. **Narrowband IoT (NB-IoT)** - Wireless connectivity standard designed for low-power, low-data-rate, and long-range sensing.
92. **Home Automation** - Technique of autonomously controlling household devices and amenities.
93. **Smart Grid** - Technological advancement in electricity distribution to enhance sustainability.
94. **RFID (Radio-Frequency Identification)** - Technology using radio waves to remotely identify garments, devices, or objects.
95. **5G Technology** - Wireless network technology designed for rapid data transfer and high scalability.
96. **Smart City** - Concept of improving city security, transportation, energy management, and other services using technological solutions.
97. **Digital Twin** - Technique of integrating digital models of various aspects of the real world.
98. **Cyber-Physical Systems** - Computing and control systems that integrate IoT devices with worldly physical processes.

## **17. AUTOMATION TECHNOLOGY**

1. **Automation** - Technique for automating various tasks and processes.
2. **Robotics** - Study and development of automated machines or robots.
3. **Artificial Intelligence (AI)** - Technique of making computer systems capable of reasoning similar to human intelligence and simulating it.
4. **Machine Learning** - Technique of teaching machines from data and automating predefined tasks.
5. **Industrial Automation** - Technique for automating tasks and processes in various industries.
6. **Process Automation** - Technique for automating specific tasks or processes.
7. **Control Systems** - Technology for controlling machines and processes.
8. **PLC (Programmable Logic Controller)** - A specialized computer that controls devices.
9. **SCADA (Supervisory Control and Data Acquisition)** - Control system that monitors and controls devices.
10. **HMI (Human Machine Interface)** - Technology for communication between humans and machines.
11. **DCS (Distributed Control System)** - Control system for large industrial processes.
12. **MES (Manufacturing Execution System)** - Technology for controlling and managing production processes.
13. **CNC (Computer Numerical Control)** - Technique for controlling machines using computer systems.
14. **IoT (Internet of Things)** - Technique for connecting various objects and devices to the internet.
15. **IIoT (Industrial Internet of Things)** - IoT technology in the industrial sector.
16. **M2M (Machine to Machine)** - Technique for automated communication between devices.
17. **PLC Programming** - Technique for programming programmable logic controllers.
18. **SCADA System Integration** - Technique for organizing various devices on a unified platform.
19. **Control Panel** - Technology for configuring and operating control systems.
20. **VFD (Variable Frequency Drive)** - Technique for controlling the speed of motors and pumps.
21. **Robotics Automation** - Technique for automating robots.
22. **Wireless Automation** - Technology that automates objects without wires.
23. **Control Algorithm** - Algorithms used in control systems.
24. **Sensor Technology** - Technology of sensors that inform about the status and changes of devices.
25. **Actuator** - Mechanical devices used to automate devices.
26. **Closed-Loop System** - A system of interaction that regulates control automatically.
27. **Open-Loop System** - A system of interaction that does not regulate control automatically.



28. **Relay** - Technology that sends control signals from one place to another.
29. **Pneumatic Automation** - Technique of automating devices using air pressure.
30. **Hydraulic Automation** - Technique of automating devices using fluid pressure.
31. **PLC Logic** - Logic used in programmable logic controllers.
32. **Industrial Robots** - Robots used in industry.
33. **Automation Engineer** - Engineer who develops and operates automation technical tools.
34. **DCS Programming** - Technique for programming distributed control systems.
35. **Industrial Networking** - Networking technique used in industry.
36. **Process Control** - Technique for controlling processes.
37. **Instrumentation** - Technique for measuring and controlling devices.
38. **Mechatronics** - Integration of mechanical and electronic systems.
39. **PID Controller** - A type of proportional, integral, and derivative controller.
40. **Electrical Automation** - Technique of automating devices using electrical energy.
41. **Control Valve** - Valve used to control devices.
42. **Batch Processing** - Technique for completing a specific number of tasks at one time.
43. **Feedback System** - A system of interaction that communicates with an external structure.
44. **Process Monitoring** - Technique for monitoring processes.
45. **Safety Systems** - Technique for keeping devices and processes safe.
46. **Production Automation** - Technique for automating production processes.
47. **Motion Control** - Technique for controlling the motion of machines and devices.
48. **SCADA HMI Design** - Technique for designing supervisory control and human-machine interface.
49. **Batch Automation** - Technique for automating batch processes.
50. **Servo System** - Technique for controlling the movement or speed of devices.
51. **SCADA Integration** - Technique of incorporating various systems into the Supervisory Control and Data Acquisition (SCADA) system.
52. **Industrial Communication** - Protocols and techniques used for communication in industries.
53. **SCADA Security** - Techniques for securing Supervisory Control and Data Acquisition (SCADA) systems.
54. **System Integration** - Technique of integrating various systems onto a unified platform.
55. **Process Control System** - A system for controlling devices in a process.
56. **Control Engineering** - Technique for controlling and automating devices.
57. **Automation Software** - Software used to operate automated tasks and processes.
58. **Industrial Control Panel** - Control panels used in industries.
59. **Control System Design** - Designing the control system for devices.
60. **PLC Automation** - Technique for automating Programmable Logic Controller (PLC).
61. **Factory Automation** - Technique for automated tasks in factories.
62. **Process Automation System** - System for automating devices.
63. **PLC Control** - Technique for controlling Programmable Logic Controller (PLC).
64. **Control System Integration** - Technique for integrating various control systems.
65. **Automation Engineering** - Technique for the development and study of automation-related devices.
66. **Home Automation System** - System for automating household devices.
67. **Control Panel Design** - Technique for designing control panels.
68. **Motion Control System** - Technique for controlling motion.
69. **PLC Wiring** - Technique for wiring Programmable Logic Controller (PLC).
70. **Building Automation** - Technique for automated tasks in buildings.
71. **CNC Programming** - Technique for programming computer numerical control.
72. **Automation Control System** - Technique for automated control systems.

73. **Industrial Automation Solutions** - Techniques for solutions to automate tasks in industries.
74. **SCADA Programming** - Programming techniques for Supervisory Control and Data Acquisition (SCADA).
75. **Control System Software** - Software for control systems.
76. **Automated Manufacturing** - Technique for automated manufacturing.
77. **SCADA Control** - Technique for controlling Supervisory Control and Data Acquisition (SCADA).
78. **PLC System** - Programmable Logic Controller (PLC) system.
79. **SCADA System** - Supervisory Control and Data Acquisition (SCADA) system.
80. **Automation Components** - Components of automation systems.
81. **Industrial Process Automation** - Technique for automating processes in industries.
82. **Automated Systems** - Systems for automated tasks.
83. **Control Engineering Design** - Designing control engineering systems.
84. **SCADA Monitoring** - Monitoring Supervisory Control and Data Acquisition (SCADA).
85. **Automated Control System** - Automated control system.
86. **SCADA Architecture** - Architecture of Supervisory Control and Data Acquisition (SCADA).
87. **Industrial Control Systems** - Control systems used in industries.
88. **SCADA Interface** - Interface of Supervisory Control and Data Acquisition (SCADA).
89. **Automated Control Panel** - Automated control panel.
90. **SCADA Telemetry** - Telemetry of Supervisory Control and Data Acquisition (SCADA).
91. **Industrial Automation Technology** - Technology for automating tasks in industries.
92. **SCADA Database** - Database of Supervisory Control and Data Acquisition (SCADA).
93. **Automated Production** - Technique for automated production.
94. **SCADA Configuration** - Configuration of Supervisory Control and Data Acquisition (SCADA).
95. **Automation Control Engineering** - Technique for automation control engineering.
96. **SCADA Alarm** - Alarm system for Supervisory Control and Data Acquisition (SCADA).
97. **Automated Assembly** - Technique for automated assembly.
98. **SCADA Communication** - Communication of Supervisory Control and Data Acquisition (SCADA).
99. **Automation Control Panel Design** - Designing automation control panels.
100. **SCADA Human-Machine Interface** - Human-Machine Interface of Supervisory Control and Data Acquisition (SCADA).

## **18. DEVOPS**

1. **DevOps** - It addresses Development and Operations together. It's a collaborative approach to software development aimed at making projects more productive, secure, and stable.
2. **Continuous Integration** - The process of continuously developing software where changes are constantly integrated and the completed code is shared.
3. **Continuous Deployment** - The process of continuously producing and deploying software.
4. **Continuous Delivery** - The software production process where completed code is continuously prepared for production but not necessarily shared with users.
5. **Infrastructure as Code** - The process of managing infrastructure in a structured manner using code.
6. **Deployment Pipeline** - A set of processes for continuously developing, testing, and deploying software.
7. **Version Control** - The process of storing and managing versions of software code.
8. **Git** - A comprehensive version control system that manages code versions.
9. **Jenkins** - An open-source server for continuous integration.
10. **Docker** - A containerization platform that allows packaging and distributing apps.
11. **Kubernetes** - An orchestration tool for managing containerized applications with large-scale resources.
12. **Microservices** - Small, independent service components that make software app development easier.
13. **Agile Development** - A software development process that embraces regular changes and delivers maximum value.

14. **Scrum** - A framework where development teams manage work regularly.
15. **Kanban** - A framework for managing development work using cards.
16. **Waterfall Model** - A sequential process framework where all development phases occur once.
17. **Agile Manifesto** - A list of fundamental principles of agile development.
18. **Infrastructure Automation** - The process of automating the creation and management of servers, networks, and other infrastructure.
19. **Configuration Management** - The process of managing software and hardware configurations.
20. **Release Management** - Managing the software release process.
21. **Monitoring** - The process of monitoring the status and performance of software and hardware.
22. **Logging** - The process of recording logs for software and hardware.
23. **Incident Management** - The process of managing software-related incidents.
24. **Cloud Computing** - The process of accessing various services over the internet.
25. **IaaS (Infrastructure as a Service)** - Distribution of services as infrastructure.
26. **PaaS (Platform as a Service)** - Distribution of services as platforms.
27. **SaaS (Software as a Service)** - Distribution of services as software.
28. **Cloud Provider** - A company that provides cloud services.
29. **Ansible** - An open-source tool for infrastructure automation and configuration management.
30. **Chef** - A configuration management tool for infrastructure and servers.
31. **Puppet** - A configuration management tool for infrastructure and servers.
32. **Terraform** - An open-source tool for writing infrastructure code.
33. **CI/CD Pipeline** - A process for continuously developing, testing, and deploying software with automation and distribution.
34. **Blue-Green Deployment** - The process of deploying software with a new version.
35. **Canary Deployment** - A process of testing versions with a small number of users.
36. **GitLab** - A version control and collaborative development platform.
37. **Bitbucket** - A version control and collaborative development platform.
38. **Jira** - A ticketing tool for project and task management.
39. **Artifactory** - A storage and management platform for software artifacts distribution.
40. **SonarQube** - An open-source platform for code quality and security analysis.
41. **Nexus** - A storage and management platform for software artifacts distribution.
42. **Load Balancing** - The process of distributing traffic between servers and institutions.
43. **High Availability** - Guaranteeing continuous availability of a system or service.
44. **Scalability** - The ability to develop a system according to a plan.
45. **Failover** - The process of switching to another system in case of loss of existence of one system.
46. **Disaster Recovery** - The ability to restore an application process after the loss of resources.
47. **Git Workflow** - The process of organizing work with Git.
48. **Feature Branch** - A developed branch for storing code related to a feature in a version control system.
49. **Master Branch** - A developed branch for storing the original code in a version control system.
50. **Merge** - The process of organizing one branch into another branch.
51. **Pull Request (पुल अनुरोध)** - A request to merge one branch of code into another branch.
52. **Code Review (कोड समीक्षा)** - The process of reviewing the quality, security, and other aspects of developed code.
53. **Automated Testing (स्वचालित परीक्षण)** - The process of testing software automatically.
54. **Unit Testing (यूनिट परीक्षण)** - The process of testing small parts of code.
55. **Integration Testing (संघटन परीक्षण)** - The process of integrating multiple interfaces.
56. **Functional Testing (कार्यात्मक परीक्षण)** - The process of testing specific features of software.
57. **Regression Testing (पूर्वस्थिति परीक्षण)** - The process of checking for regression of previous state in a new version.
58. **Deployment Automation (डिप्लॉयमेंट स्वचालन)** - The process of automatically deploying software.
59. **Infrastructure Automation Tools (इंफ्रास्ट्रक्चर स्वचालन टूल्स)** - Tools for managing infrastructure automatically.

60. **Orchestration** (ओर्केस्ट्रेशन) - The process of coordinated management of application resources.
61. **Versioning** (संस्करणान्कन) - The process of managing versions of software.
62. **Automated Deployment** (स्वचालित डिप्लॉयमेंट) - The process of automatically deploying software.
63. **Configuration Drift** - The process of diverging from the current configuration of infrastructure or software.
64. **Infrastructure Monitoring** - The process of monitoring the status and performance of software and hardware.
65. **Log Management** (लॉग प्रबंधन) - The process of logging for software and hardware.
66. **Incident Response** (घटना प्रतिक्रिया) - The process of managing software-related incidents.
67. **Change Management** (परिवर्तन प्रबंधन) - Management of the process of changes in software and hardware.
68. **IaC (Infrastructure as Code) Tools** (आईएस टूल्स - इंफ्रास्ट्रक्चर एज कोड) - Tools for managing infrastructure as code.
69. **ChatOps** (चैटऑप्स) - The process of handling operations using a chat messaging service.
70. **Continuous Monitoring** - The process of continuous monitoring of the status and performance of software and hardware.
71. **Elastic Load Balancer** (इलास्टिक लोड बैलेंसर) - The ability to scale to balance traffic among various servers.
72. **Serverless Architecture** (सर्वरलेस आर्किटेक्चर) - The process of developing high-performance software without servers.
73. **Infrastructure Scalability** (इंफ्रास्ट्रक्चर स्केलेबिलिटी) - The ability to scale software and hardware.
74. **Immutable Infrastructure** (अविचलित इंफ्रास्ट्रक्चर) - Infrastructure that does not allow updates.
75. **Cloud-Native** (क्लाउड-नेटिव) - Software developed and distributed in the cloud.
76. **Continuous Feedback** (सतत प्रतिसाद) - Working with continuous feedback during the software development process.
77. **Chatbot Integration** (चैटबॉट एकीकरण) - The process of integrating chatbots into the software process.
78. **Configuration File Management** - The process of managing software and hardware configuration files.
79. **Server Provisioning** (सर्वर प्रोविजनिंग) - The process of setting up software and hardware.
80. **Canary Analysis** (कैनेरी विश्लेषण) - Testing strategies and monitoring for canary deployments.
81. **Infrastructure Security** (इंफ्रास्ट्रक्चर सुरक्षा) - The process of monitoring the security of software and hardware.
82. **Compliance as Code** (अनुपालन के रूप में कोड) - Using code for regular compliance checks.
83. **Feature Flagging** (फीचर फ्लैगिंग) - The process of enabling and disabling new features in software.
84. **A/B Testing** (ए/बी परीक्षण) - The process of testing different versions of software rigorously.
85. **Deployment Strategies** (डिप्लॉयमेंट रणनीतियाँ) - Various approaches and processes for software deployment.
86. **Infrastructure Testing** (इंफ्रास्ट्रक्चर परीक्षण) - The process of testing infrastructure.
87. **Canary Metrics** (कैनेरी मेट्रिक्स) - Monitoring metrics suitable for canary deployments.
88. **Failback Strategy** (फेलबैक रणनीति) - The process of reverting infrastructure.
89. **Infrastructure Configuration** - The process of managing configuration for infrastructure setup.
90. **Compliance Auditing** (अनुपालन महसूली) - The process of regular compliance checks.
91. **Dark Launching** (डार्क लॉन्चिंग) - The process of secretly testing a feature for some users.
92. **Infrastructure Provisioning** (इंफ्रास्ट्रक्चर प्रोविजनिंग) - The process of setting up software and hardware.
93. **Immutable Server** (अविचलित सर्वर) - A server that does not allow updates.
94. **Chaos Engineering** (काॉस इंजीनियरिंग) - The process of testing for resilience on software and hardware.
95. **Blue Deployment** (ब्लू डिप्लॉयमेंट) - The process of deploying software with a new version.
96. **Green Deployment** (ग्रीन डिप्लॉयमेंट) - The process of deploying software with the original version.
97. **Infrastructure as a Code** (इंफ्रास्ट्रक्चर एज ए कोड) - The process of managing infrastructure as code.
98. **Load Testing** (लोड परीक्षण) - The process of testing software load capacity.
99. **Canary Release** (कैनेरी रिलीज) - Distributing software through canary deployment.
100. **Infrastructure Orchestration** - The process of coordinated management of infrastructure resources.



## 19. DATA SCIENCE

1. **Data Science** - The field of using data for analysis, interpretation, and generating new knowledge.
2. **Data Analysis** - The process of technical and statistical analysis of data.
3. **Machine Learning** - The ability of computer systems to learn from data.
4. **Artificial Intelligence** - The ability of computers and machines to think and perform tasks.
5. **Data Mining** - The process of discovering useful information from large datasets.
6. **Big Data** - Very large and extensive datasets.
7. **Data Visualization** - The process of presenting data in graphical form.
8. **Regression Analysis** - The process of studying relationships between data.
9. **Classification** - The process of categorizing data into different categories.
10. **Clustering** - The process of grouping data points based on similarity for numerical analysis.
11. **Natural Language Processing** - The ability of computers to understand and work with human language.
12. **Data Engineering** - The process of structuring and processing large datasets.
13. **Data Preprocessing** - The process of cleaning and preparing data for analysis.
14. **Data Cleansing** - The process of correcting errors in data.
15. **Data Warehousing** - The process of storing large and structured data.
16. **Feature Engineering** - The process of creating relevant features for analysis.
17. **Exploratory Data Analysis** - The process of exploring, understanding, and analyzing data.
18. **Predictive Modeling** - The process of building models for prediction based on data.
19. **Supervised Learning** - Using labeled data to train a model.
20. **Unsupervised Learning** - Using unlabeled data to train a model.
21. **Reinforcement Learning** - Rewarding a model to achieve better results.
22. **Overfitting** - The problem of learning too much from data during model training.
23. **Underfitting** - The problem of learning too little from data during model training.
24. **Feature Selection** - The process of selecting important features.
25. **Model Evaluation** - The process of assessing the performance of a model.
26. **Cross-Validation** - Using cross-validation to validate the performance of a data model.
27. **Feature Extraction** - The process of extracting important features from data.
28. **Model Deployment** - The process of deploying a model into real-world applications.
29. **Ensemble Learning** - Combining multiple models for better results.
30. **Bias-Variance Tradeoff** - Balancing model performance and statistical stability.
31. **K-Nearest Neighbors** - A technique for identifying the nearest neighbors of data points based on distance.
32. **Naive Bayes** - A technique for categorizing data based on relationships and features.
33. **Support Vector Machines** - A technique for creating a boundary between two categories.
34. **Decision Trees** - A process for constructing a decision for prediction.
35. **Random Forest** - A collection of decision trees.
36. **Neural Networks** - A technique based on the structure of the brain.
37. **Deep Learning** - A specialized technique for large datasets.
38. **Dimensionality Reduction** - The process of reducing data complexity.
39. **Regression Algorithms** - Techniques for regression analysis.
40. **Classification Algorithms** - Techniques for classification.
41. **Clustering Algorithms** - Techniques for clustering.
42. **Natural Language Generation** - Automatically generating content in natural language.
43. **Natural Language Understanding** - Understanding the structure and meaning of natural language by computers.
44. **Data Ethics** - Ethical considerations in data organization and usage.

45. **Data Privacy** - Concerns about the security and privacy of user data.
46. **Data Governance** - Management of policies for data usage, organization, and management.
47. **Data Exploration** - The process of exploring data.
48. **Data Integration** - The process of combining data from different sources.
49. **Data Pipeline** - The process of moving data from source to destination.
50. **Data Bias** - The skewness or translation of assumptions or opportunities in data.
51. **Data Imputation** - The process of inserting estimated data in place of missing data.
52. **Data Augmentation** - The process of using data to increase an existing data set.
53. **Data Labeling** - The process of categorizing data samples.
54. **Data Wrangling** - The process of cleaning and organizing data.
55. **Data Compression** - The process of reducing the size of data.
56. **Data Normalization** - The process of transforming data to a common scale.
57. **Data Scaling** - The process of transforming data to a local scale.
58. **IoT (Internet of Things)** - A network of devices and subjects connected to the internet that can communicate data among themselves.
59. **Sensor** - A device or instrument that measures physical and environmental changes such as location, temperature, security, engine, electricity, and others.
60. **Actuator** - It reacts to data received by sensors to produce designated actions.
61. **Edge Computing** - Here, data is processed and analyzed locally and distributed near the edge of the internet.
62. **Cloud Computing** - A model for managing various services and resources through the internet.
63. **MQTT (MQTT)** - A lightweight open-source protocol for communication between sensors and actuators.
64. **LoRa** - Long Range Radio technology that supports long-distance communication for IoT devices.
65. **Zigbee** - A low-rate personal area network protocol that supports low-wattage communication for IoT devices.
66. **BLE (Bluetooth Low Energy)** - Low-energy Bluetooth technology that manages communication between sensors suitable for battery-operated devices.
67. **RFID** - Tags that can be attached to objects and substances to identify and read data from them.
68. **Smart Home** - Where various devices and appliances are connected to the internet, allowing users to save time, energy, and resources.
69. **Wearable Devices** - These devices measure various physical attributes such as heart rate, blood pressure, etc., and send relevant data.
70. **Industrial IoT** - Using IoT technology to manage and modify industrial processes.
71. **Smart City** - Using the Internet of Things to manage and secure urban services.
72. **Connected Cars** - Internet-connected cars that ensure vehicle safety and convenience.
73. **Smart Grid** - The process of creating a smart electricity network using the Internet of Things in energy collection, distribution, and management.
74. **Home Automation** - The process of automating household devices and amenities.
75. **Smart Agriculture** - Using the Internet of Things in agricultural production.
76. **Smart Health** - Using the Internet of Things in healthcare device services.
77. **Smart Grid** - The process of using the Internet of Things in the collection, distribution, and management of electricity.
78. **Smart Retail** - The process of using the Internet of Things in stores and retail locations.
79. **Smart Water Management** - The process of using the Internet of Things to manage water resources.
80. **Predictive Maintenance** - The process of predicting impending failures of equipment and machinery.
81. **Fog Computing** - The process of using computing on nearby resources of IoT devices.
82. **Digital Twin** - A digital representation of a real device or process used to understand its operations and responsiveness.
83. **Fog Computing** - The process of using computing on nearby resources of IoT devices.
84. **Digital Twin** - A digital representation of a real device or process used to understand its operations and responsiveness.
85. **Predictive Analytics** - The process of predicting future events from objects and data.
86. **Data Ingestion** - The process of assimilating data received from sensors and actuators into the system.
87. **Smart Energy Management** - The process of using energy resources to manage energy consumption.

## 20.DBMS:

1. **Database:** A structured collection or dataset of data that can be accessed from the internet or any other location.
2. **Table:** A structure used in a database to organize data effectively.
3. **Record:** A set of data stored in a row in a table.
4. **Field:** Information of the same type stored at a single location in a table, such as name, age, etc.
5. **Primary Key:** A component used to uniquely identify each record in a table.
6. **Normalization:** The process of organizing data in a database to ensure its integrity and efficiency.
7. **Index:** A method of organizing data in a database table for quick search.
8. **Transaction:** A set of actions involving multiple steps to manage data in a database.
9. **Query:** A request for retrieving data from a specific table in a database or modifying data.
10. **SQL:** A standard database language used for communication with databases.
11. **Backup:** Making a copy of database information for security purposes.
12. **Relational Database:** A database system that stores data organized via relationships and tables.
13. **Entity:** A group of specific data in a table that can be identified through a record.
14. **Join:** An action to establish relationships between data tables.
15. **Schema:** A set of predefined instructions for organizing structure and data in a database.
16. **ACID:** Four main properties in a transaction process - Atomicity, Consistency, Isolation, and Durability.
17. **View:** A representation of specified data from one or more tables.
18. **Concurrency:** The ability to interact with multiple users simultaneously.
19. **Normalization:** The process of organizing data in a database to ensure its integrity and efficiency.
20. **Denormalization:** The process of simplifying a normalized database schema.
21. **Cursor:** A temporary relationship associated with a database query that organizes results.
22. **Database Administrator:** A person responsible for overseeing and managing a database.
23. **Backup and Recovery:** The process of safeguarding and restoring database information in case of loss.
24. **Replication:** The process of creating a duplicate of data from one database to another.
25. **Data Warehouse:** A centralized location for storing and managing large amounts of data.
26. **Data Mining:** The process of discovering patterns and information from data.
27. **Trigger:** An action that automatically occurs after a specified event.
28. **Data Mart:** A subset of a data warehouse for specific purposes.
29. **OLAP:** The ability for users to view and analyze data from various perspectives.
30. **Entity-Relationship Model:** A model for organizing data in a database.
31. **DBMS:** Database Management System, which oversees and manages a database.
32. **Database:** A structured collection or dataset of data that can be accessed from the internet or any other location.
33. **Table:** A structure used in a database to organize data effectively.
34. **Record:** A set of data stored in a row in a table.
35. **Field:** Information of the same type stored at a single location in a table, such as name, age, etc.
36. **Primary Key:** A component used to uniquely identify each record in a table.
37. **Foreign Key:** A capability used to link the primary key of one table to another table.
38. **Normalization:** The process of organizing data in a database to ensure its integrity and efficiency.
39. **Index:** A method of organizing data in a database table for quick search.
40. **Transaction:** A set of actions involving multiple steps to manage data in a database.
41. **Query:** A request for retrieving data from a specific table in a database or modifying data.
42. **SQL:** A standard database language used for communication with databases.
43. **Backup:** Making a copy of database information for security purposes.
44. **Relational Database:** A database system that stores data organized via relationships and tables.

45. **Entity:** A group of specific data in a table that can be identified through a record.
46. **Join:** An action to establish relationships between data tables.
47. **Schema:** A set of predefined instructions for organizing structure and data in a database.
48. **ACID:** Four main properties in a transaction process - Atomicity, Consistency, Isolation, and Durability.
49. **View:** A representation of specified data from one or more tables.
50. **Concurrency:** The ability to interact with multiple users simultaneously.
51. **Normalization:** The process of organizing data in a database to ensure its immediate and stored state security.
52. **Denormalization:** The process of simplifying a normalized database schema.
53. **Cursor:** A persistent connection associated with a database query that retrieves results.
54. **Database Administrator:** An individual responsible for overseeing and managing a database.
55. **Backup and Recovery:** The process of safeguarding database information and restoring it in case of loss.
56. **Replication:** The process of creating a duplicate of data from one database to another.
57. **Data Warehouse:** A repository for storing and managing large volumes of data.
58. **Data Mining:** The process of discovering patterns and information from data.
59. **Trigger:** An action that automatically executes after a specific event.
60. **Data Mart:** A subset of a data warehouse for specific purposes.
61. **OLAP:** Online Analytical Processing, enabling users to view and analyze data from various perspectives.
62. **Entity-Relationship Model:** A model for organizing data in a database.
63. **DBMS:** Database Management System, responsible for managing and overseeing databases.
64. **Concurrency Control:** Mechanism to maintain consistency in a situation where multiple users interact simultaneously.
65. **Database Indexing:** Technique for organizing data in a table for quick search.
66. **Database Replication:** Process of creating copies of data from one computer to others periodically.
67. **Database Mirroring:** Process of duplicating a database, with each copy stored on a separate server.
68. **Database Snapshot:** Process of creating an image of a database at a specific moment.
69. **Data Encryption:** Process of securely structuring data.
70. **Database Clustering:** Process of distributing database services among a group of computers.
71. **Database Sharding:** Process of partitioning a large database into smaller shards.
72. **Database Trigger:** Code or program that automatically executes after a specific event.
73. **Database Migration:** Process of changing the status or server of a database.
74. **Data Governance:** Management of rules and processes for managing and securing data.
75. **Database Backup:** Creating a copy of a database for security purposes.
76. **Data Warehouse ETL:** Process of gathering, transforming, and loading data into a data warehouse.
77. **Database Triggers:** Code or program that automatically executes after a specific event.
78. **Database Schema Design:** Planning tables and their attributes to organize data in a database.
79. **Data Retrieval:** Process of retrieving information from a database.
80. **Database Query:** Request to retrieve data from or make changes in a database.
81. **Data Concurrency:** Situation where multiple users interact with data simultaneously.
82. **Database Connectivity:** Ability to establish communication with a database and retrieve data from it.
83. **Database Rollback:** Process of reverting a transaction to its previous state.
84. **Database Connectivity API:** Set of instructions for establishing communication between an application and a database.
85. **Database Partitioning:** Process of dividing a database to facilitate data relocation.
86. **Data Warehouse Schema:** Planning tables and their attributes to organize data in a data warehouse.
87. **Database Load Balancing:** Process of balancing loads between database services.
88. **Database Optimization:** Process of making technical changes to improve database performance.
89. **Database Rollforward:** Process of advancing a transaction to the next state.



## 21.Natural Language Processing

1. **Tokenization** - Tokenization: Dividing text into tokens.
2. **Stemming** - Stemming: Extracting the root form of words.
3. **Lemmatization** - Lemmatization: Converting words into their canonical form.
4. **POS tagging** - POS tagging: Associating parts of speech with words.
5. **N-gram** - N-gram: Combination of N consecutive words in text.
6. **Dependency parsing** - Dependency parsing: Analyzing the syntactic relationships between words.
7. **Named Entity Recognition (NER)** - Named Entity Recognition: Identifying named entities in text.
8. **Word Embedding** - Word Embedding: Representing words as vectors.
9. **Sentiment Analysis** - Sentiment Analysis: Determining the sentiment of text.
10. **Bag of Words (BoW)** - Bag of Words: Representing the frequency of words in text.
11. **Term Frequency-Inverse Document Frequency (TF-IDF)** - Term Frequency-Inverse Document Frequency: Technique for determining the importance of words.
12. **Semantic Analysis** - Semantic Analysis: Studying the meaning and message of text.
13. **Named Entity Disambiguation** - Named Entity Disambiguation: Clarifying ambiguous named entities.
14. **Part-of-Speech (POS)** - Part-of-Speech: Identifying different types of words.
15. **Dependency Tree** - Dependency Tree: Analyzing the syntactic relationships between clauses in a sentence.
16. **Syntax Analysis** - Syntax Analysis: Analyzing the structural components of a sentence.
17. **Morphological Analysis** - Morphological Analysis: Studying the forms of words.
18. **Word Sense Disambiguation** - Word Sense Disambiguation: Clarifying different meanings of words.
19. **Named Entity Linking** - Named Entity Linking: Connecting named entities to specific references.
20. **Co-reference Resolution** - Co-reference Resolution: Clarifying included references in text.
21. **Chunking** - Chunking: Dividing parts of sentences into chunks.
22. **Vectorization** - Vectorization: Converting data into vector form.
23. **GloVe (Global Vectors for Word Representation)** - GloVe: Global vector representation for words.
24. **Word2Vec** - Word2Vec: Technique for representing words as vectors.
25. **Recurrent Neural Network (RNN)** - Recurrent Neural Network: A type of deep learning used for sequence data.
26. **Long Short-Term Memory (LSTM)** - Long Short-Term Memory: A type of cell used in deep learning networks.
27. **Convolutional Neural Network (CNN)** - Convolutional Neural Network: A type of deep learning used for image and multidimensional data.
28. **Transformer** - Transformer: Deep learning network for contextual understanding.
29. **Attention Mechanism** - Attention Mechanism: Technique used in deep learning models to prioritize different parts of text.
30. **Sequence-to-Sequence (Seq2Seq)** - Sequence-to-Sequence: A type of deep learning model used for data prediction.
31. **BERT (Bidirectional Encoder Representations from Transformers)** - BERT: Pre-trained deep learning model for precise understanding of words in text.
32. **GPT (Generative Pre-trained Transformer)** - GPT: Deep learning model for text generation using pre-trained transformer.
33. **Encoder - Encoder**: Component of various transformer models in deep learning used to transfer text into defined representations.
34. **Decoder - Decoder**: Component of various transformer models in deep learning used to generate text from representations.
35. **Masked Language Model (MLM)** - Masked Language Model: Deep learning model, acting as a type of printer, that masks certain parts of given text by users.
36. **Natural Language Understanding (NLU)** - Natural Language Understanding: Ability to comprehend human language.
37. **Natural Language Generation (NLG)** - Natural Language Generation: Process by which computers generate outlines of human conversation.
38. **Speech Recognition** - Speech Recognition: Process of converting spoken language into text.
39. **Machine Translation** - Machine Translation: Process of translating text from one language to another.

40. **Speech Synthesis** - Speech Synthesis: Process by which computers pronounce text.
41. **Chatbot** - Chatbot: Program for conversing with users via online chat.
42. **Named Entity** - Named Entity: Identified unit of specific person, place, or object in text.
43. **Corpus** - Corpus: Collection of text.
44. **Stopwords** - Stopwords: Meaningless words in language context.
45. **Stem** - Stem: Base form of a word.
46. **Lemma** - Lemma: Canonical form of a word.
47. **Frequency Distribution** - Frequency Distribution: Measurement of word presence.
48. **Concordance** - Concordance: Listing all occurrences of a word.
49. **Stemming Algorithm** - Stemming Algorithm: Set of instructions to determine the root form of a word.
50. **Tokenizer** - Tokenizer: Program or system for dividing words into tokens.
51. **WordNet**: An online dictionary for analyzing general and specific rights associated with words.
52. **Text Classification**: The process of categorizing text into predefined categories.
53. **Information Retrieval**: The process of retrieving relevant information from a database.
54. **Named Entity Recognition (NER)**: The process of identifying named entities in text.
55. **Named Entity Disambiguation**: The process of disambiguating ambiguous named entities.
56. **Named Entity Linking**: The process of linking named entities to specific references.
57. **Semantic Role Labeling (SRL)**: The process of identifying the semantic roles of words.
58. **Coreference Resolution**: The process of resolving co-references in text.
59. **Dependency Parsing**: The process of analyzing the relationships between words in a sentence.
60. **Sentiment Analysis**: The process of identifying the sentiment of text.
61. **Document Similarity**: Measurement of similarity between two or more documents.
62. **Text Summarization**: The process of summarizing large text documents.
63. **Word Sense Disambiguation**: The process of disambiguating different meanings of a word.
64. **Machine Translation**: The process of translating text from one language to another.
65. **Syntactic Analysis**: The process of studying the structure of sentences.
66. **Morphological Analysis**: The process of identifying the form of a word.
67. **Language Model**: A network used to represent the structure and meaning of language.
68. **Latent Semantic Analysis (LSA)**: The process of identifying important meanings hidden in specific textual structures.
69. **Named Entity Recognition (NER)**: The process of identifying entities with special presence in text.
70. **Named Entity**: An entity representing a specific person, place, or thing in a sentence.
71. **Collocation Extraction**: The process of identifying commonly occurring word combinations in a sentence.
72. **Ontology**: A description of the semantic structure for a specific subject.
73. **Coh-Metrix**: A general structure analysis program for measuring semantic, developmental, and syntactic structures of text.
74. **BLEU Score**: A standard measure of machine translation performance.
75. **CIDEr Score**: A measure of similarity for captioned images.
76. **ROUGE Score**: A measure of performance for text summarization models.
77. **Precision**: The probability of generating a true positive result.
78. **Recall**: The ability to retrieve possible true positive results.
79. **F1 Score**: The harmonic mean of precision and recall.
80. **Precision-Recall Curve**: A graph representing the balance between precision and recall.
81. **Machine Learning**: The process of enabling computer systems to learn autonomously.
82. **Deep Learning**: The ability to learn from large and complex datasets.
83. **Neural Network**: A computer network based on the logical and physical structure of the human brain.
84. **Activation Function**: A function in a neural network that receives directed messages.
85. **Backpropagation**: The process of correcting errors in a neural network while considering faults.

86. **Gradient Descent:** An optimization technique used to reduce errors in a neural network.
87. **Overfitting:** The process of considering excessive information during model training, resulting in abnormal model performance.
88. **Underfitting:** The process of not considering enough information during model training, resulting in inadequate model performance.
89. **Regularization:** Techniques used to improve model performance.
90. **Word Alignment:** The process of aligning words from one language with words from another language.
91. **Encoder-Decoder Architecture:** A structure used for machine translation and reference acquisition.
92. **Attention Mechanism:** The process of focusing on each word in a deep learning model.
93. **Pre-trained Model:** A model pre-trained on more data and can be retrained.
94. **Fine-tuning:** The process of adjusting a pre-trained model on specific datasets.
95. **Transfer Learning:** The process of applying knowledge obtained from one field to another.
96. **Self-attention:** The ability of a deep learning model to pay attention to each word without bias.
97. **Zero-shot Learning:** The ability to learn from new data not included in the training data.
98. **Semi-supervised Learning:** The process of learning with some labeled data.
99. **Unsupervised Learning:** The process of learning without specific patterns or labels in the data.
100. **Reinforcement Learning:** The process of learning based on outcomes, such as feedback.

## **22. Mobile Communication**

1. **Mobile Communication:** The process of communication through mobile devices via wireless technology.
2. **Cellular Network:** A network that provides mobile services by dividing an area into cells.
3. **Base Station:** The central binding location of a mobile network from where communication signals are transmitted and received.
4. **Antenna:** A device used to transmit and receive electronic signals continuously and wirelessly between communication devices.
5. **Frequency Band:** A specified range of frequencies for wireless communication.
6. **Spectrum:** The total collection of available frequency bands for wireless communication.
7. **Handover:** The process of transferring communication service from one base station to another for a mobile device.
8. **Roaming:** The ability to use mobile service in one location while physically present in another location.
9. **SIM Card:** A special identification document provided by a provider specifically for a mobile device.
10. **IMEI Number:** International Mobile Equipment Identity number for a mobile device.
11. **SMS (Short Message Service):** A service for sending short messages through mobile devices.
12. **MMS (Multimedia Messaging Service):** A service for sending non-textual messages that can include images, videos, and audio.
13. **3G (Third Generation):** Mobile data communication technology of the third generation.
14. **4G (Fourth Generation):** Mobile data communication technology of the fourth generation.
15. **5G (Fifth Generation):** Mobile data communication technology of the fifth generation.
16. **LTE (Long-Term Evolution):** A technological standard used for long-term data communication.
17. **VoLTE (Voice over LTE):** Voice communication service alongside data communication for an extended period.
18. **Wi-Fi Calling:** Voice communication service over the internet.
19. **Hotspot:** A device that provides Wi-Fi communication service in a designated area.
20. **Bluetooth:** A technology standard for wireless mutual communication.
21. **NFC (Near Field Communication):** An exchange technology for data communication with nearby devices.
22. **GPS (Global Positioning System):** Technology used to determine the location of communication devices.
23. **VoIP (Voice over Internet Protocol):** Voice communication service over the internet.
24. **APN (Access Point Name):** A specific entry point used to communicate data in a mobile network.
25. **SIM Lock:** Security technology to restrict the use of a mobile device to only one primary network.
26. **GPRS (General Packet Radio Service):** A mobile device technology standard for data communication.

27. **SMS Gateway:** An initial binding location for sending mobile messages to the internet or other mobile networks.
28. **OTA (Over-The-Air) Update:** An update transferred wirelessly over the network to update mobile device software.
29. **Voicemail:** Updated service for leaving voice messages.
30. **Push Notification:** The process of notifying users by a website, application, or service.
31. **Dual SIM:** Capability to use two SIM cards in a mobile device.
32. **SIP (Session Initiation Protocol):** A protocol used to establish various multimedia services.
33. **Push-to-Talk:** A type of voice communication service that allows users to send voice messages by pressing a button.
34. **Handset:** A part of a mobile or landline telephone containing a microphone, specialized data, and a speaker.
35. **CDMA (Code Division Multiple Access):** A technology standard used for digital data and voice communication.
36. **GSM (Global System for Mobile Communications):** An international standard and technology system for mobile communication.
37. **VoWiFi (Voice over Wi-Fi):** Voice communication service via Wi-Fi network.
38. **EIR (Equipment Identity Register):** Identification number and list of devices in a mobile network.
39. **HLR (Home Location Register):** A server that manages authentication and identification services for mobile service.
40. **VLR (Visitor Location Register):** A server that manages authentication services for mobile services in remote locations.
41. **OAM&P (Operations, Administration, Maintenance, and Provisioning):** Management of operations, administration, maintenance, and provisioning for mobile communication networks.
42. **RAN (Radio Access Network):** A part of a telecom network used for wireless communication services.
43. **IMSI (International Mobile Subscriber Identity):** International mobile subscriber identification number.
44. **SMS Center:** Centralized communication service for managing mobile messages.
45. **MIMO (Multiple Input Multiple Output):** Technology using multiple antennas to enhance data activity.
46. **PDA (Personal Digital Assistant):** A handheld high-tech device capable of storing titles, notes, emails, and other data.
47. **Mobile Wallet:** Service for financial transactions using a mobile device.
48. **OTT (Over-The-Top):** Refers to companies providing voice, video, and other multimedia services over the internet.
49. **Mobile Banking:** Service for using banking services via a mobile device.
50. **Mobile Advertising:** The process of providing advertisements on mobile devices.
51. **Data Roaming:** The facility to use internet services from one location to another.
52. **USSD (Unstructured Supplementary Service Data):** The process of requesting data from a mobile device without an internet connection.
53. **Mobile Security:** Technical measures used to ensure the security of mobile devices.
54. **Mobile Device Management (MDM):** The process of managing and securing all mobile devices within an organization.
55. **Mobile Operating System:** Operating system for mobile devices.
56. **Mobile Application:** Software application running on a mobile device.
57. **Bluetooth Low Energy (BLE):** The process of data communication in low energy mode without using more energy from Bluetooth.
58. **Mobile Payment:** Financial transactions service using a mobile device.
59. **NFC Tag:** A specific device for data communication via NFC.
60. **Mobile Hotspot:** The facility to share internet service with other devices using a mobile device.
61. **Mobile Processor:** Silicon chip used for data processing in mobile devices.
62. **Mobile Broadband:** The facility to connect mobile devices to the internet service.
63. **Mobile Data:** Service for transferring data through mobile devices.
64. **Mobile Virtual Network Operator (MVNO):** A company providing services for a mobile network that does not own its own network.
65. **Mobile Data Usage:** The facility to use data on mobile devices.
66. **Mobile Tracker:** Service for tracking the location and communication activities of a mobile device.
67. **Mobile Browser:** Web browser for mobile devices.
68. **Mobile Video Calling:** The facility to make video calls via mobile devices.
69. **Mobile Email:** Email service through mobile devices.
70. **Mobile App Store:** Service for downloading applications for mobile devices.
71. **Mobile Wallet:** Service for financial transactions through mobile devices.



72. **Mobile Augmented Reality:** Technology to enhance reality through mobile devices.
73. **Mobile Ticketing:** Service for purchasing and using tickets via mobile devices.
74. **Mobile VoIP:** Service for voice communication via the internet through mobile devices.
75. **Mobile Signature:** Process of referencing document images using a mobile device.
76. **Mobile Beacon:** Technology using mobile devices to transfer a specific location.
77. **Mobile Voicemail:** Service for listening to and managing voicemail messages via mobile devices.
78. **Mobile Location Services:** Service providing location services for mobile devices.
79. **Mobile Advertising:** Process of providing advertisements on mobile devices.
80. **Mobile Data Security:** Technical process to ensure data security on mobile devices.
81. **Mobile Health (mHealth):** Process of providing health services and support through mobile devices.
82. **Mobile Firewall:** Technology to control data transfer for mobile device security.
83. **Mobile Encryption:** Technical process to secure data on mobile devices.
84. **Mobile Streaming:** Service for streaming media content via mobile devices.
85. **Mobile Device Tracking:** Process of tracking the status of a mobile device.
86. **Mobile Gaming:** Service for playing video games on mobile devices.
87. **Mobile Accessibility:** Process to ensure the accessibility of mobile device usage.
88. **Mobile Satellite Services (MSS):** Service providing communication services for mobile devices using satellite communication services.
89. **Mobile Application Management (MAM):** Process of managing mobile applications in an organization.
90. **Mobile Data Recovery:** Process of recovering data from mobile devices.
91. **Mobile Signal Booster:** Device used to strengthen and improve mobile device signals.
92. **Mobile Remote Control:** Service for controlling remote devices from a mobile device.
93. **Mobile Carrier:** Company providing mobile services to consumers.
94. **Mobile Payment Gateway:** System providing payment services via mobile devices.
95. **Mobile Data Plan:** Service plan for mobile service, providing data usage limits and services.
96. **Mobile Spam Filtering:** Process of filtering spam messages on mobile devices.
97. **Mobile Authentication:** Process of identifying users using a mobile device.
98. **Mobile Data Compression:** Process of reducing the amount of data on mobile devices.
99. **Mobile Subscriber Agreement:** Terms and conditions for mobile service agreed upon between subscribers.
100. **Mobile Data Usage Alert:** Service for informing users about their mobile data usage.

## **23. Robot & Robotics**

1. **Robot** - A self-operating machine that performs specific tasks automatically.
2. **Robotics** - The study of the science of education, construction, and use of robots.
3. **Artificial Intelligence** - The ability of machines and computers to work like human intelligence.
4. **Automation** - The ability to operate a system or process automatically.
5. **Sensors** - Devices that transduce energy, light, motion, or other changes.
6. **Actuators** - Devices that activate or perform actions or activities.
7. **Manipulator** - A robot or machine used to grasp, move, or process objects.
8. **Kinematics** - The scientific branch that analyzes the motion of robots or machines.
9. **Dynamics** - The study of the activities and results of robots or machines.
10. **Human-Robot Interaction** - The process and study of working between humans and robots.
11. **Computer Vision** - The ability of computers to recognize and understand specific objects.
12. **Machine Learning** - The ability of computers to learn from data and adapt automatically.
13. **Deep Learning** - A high-level process of machine learning that often occurs without much human intervention.
14. **Neural Networks** - Machine learning models that work like the human brain.

15. **Control System** - The process of controlling and managing the activities of a robot.
16. **Kinetic Energy** - Energy related to the movement of an object.
17. **Haptics** - The study of the sensation of touching an object in robotic or simulated environments.
18. **Autonomous** - A robot or system capable of completing specified tasks on its own.
19. **Teleoperation** - The process of controlling a robot from a remote location.
20. **Telepresence** - Experiencing the presence of a distant location through a remote robot.
21. **Navigation** - The process of determining routes for the movement and communication of a robot.
22. **Obstacle Avoidance** - The ability of a robot to avoid obstacles in its activities.
23. **Gripper** - A device used to grasp or release objects.
24. **End Effector** - The tool or device of a robot or machine that completes the final task.
25. **Forward Kinematics** - The process of relating the final position of a robot to its structure.
26. **Inverse Kinematics** - The process of finding the appropriate structure for the final position of a robot.
27. **Path Planning** - The process of controlling the motion and path of a robot.
28. **Telemanipulation** - The process of directing a robot from a remote location by a human.
29. **Workspace** - The available space for the activities of a robot.
30. **Kinetic Modeling** - The process of modeling the activities of a robot.
31. **Control Algorithms** - Technical processes used to control the activities of a robot.
32. **Localization** - The process of knowing and relocating the position of a robot.
33. **Mobile Robotics** - Robotic devices that can be easily transported in modern life.
34. **Swarm Robotics** - The study of many robots working together in a group.
35. **Robot Vision** - The ability of a robot to see and recognize objects.
36. **Robotic Arm** - The device of a robot that grasps, moves, and processes objects.
37. **Robotic Surgery** - Medical procedures involving the use of robotic instruments.
38. **Humanoid Robot** - A robot with human-like shape and activities.
39. **Robotic Process Automation (RPA)** - The task of managing independent and automated processes through computer programs.
40. **Telerobotics** - The process of controlling a robot from a remote location.
41. **Robot Localization** - The process of identifying the position of a robot.
42. **Swarm Intelligence** - The ability to work through collaboration and network sharing among members of a group.
43. **Robot Kinetics** - The study of the activities of a robot.
44. **Bio-inspired Robotics** - Robotic design inspired by natural organisms and processes.
45. **Robot Ethics** - The study of ethical and social aspects of robotics and AI.
46. **Robot Kinematics** - The study of the movements of a robot.
47. **Swarm Robots** - Small robots working together in a group.
48. **Robot Intelligence** - The intelligence and study of robots.
49. **Robot Architecture** - The structural analysis and design of robots.
50. **Robot Learning** - The ability of robots to self-intelligence and learn.
51. **Gripper** - A tool used to grasp or release objects.
52. **End Effector** - A device of a robot or machine that accomplishes the final task.
53. **Forward Kinematics** - The process of determining the final position of a robot from its structure.
54. **Inverse Kinematics** - The process of finding the appropriate structure for the final position of a robot.
55. **Path Planning** - The process of controlling the motion and route of a robot.
56. **Telemanipulation** - The process of directing a robot from a remote location by a human.
57. **Workspace** - The available space for the activities of a robot.
58. **Kinetic Modeling** - The process of modeling the activities of a robot.
59. **Control Algorithms** - Technical processes used to control the activities of a robot.
60. **Localization** - The process of knowing the position of a robot and transferring it.

61. **Mobile Robotics** - Robotic devices that can be easily moved in modern life.
62. **Swarm Robotics** - Study of many robots working in a group.
63. **Robot Vision** - The ability of a robot to see and identify objects.
64. **Robotic Arm** - The device of a robot that grasps, transfers, and processes objects.
65. **Robotic Surgery** - Medical procedure involving the use of robotic instruments.
66. **Humanoid Robot** - A robot with human shape and activities.
67. **Robotic Process Automation (RPA)** - The process of managing autonomous and automated processes through computer programs.
68. **Telerobotics** - The process of controlling a robot from a remote location.
69. **Robot Localization** - The process of identifying the position of a robot.
70. **Swarm Intelligence** - The ability to work through collaboration of members of a group and network sharing.
71. **Robot Kinetics** - Study of the activities of a robot.
72. **Bio-inspired Robotics** - Robotic design inspired by natural organisms and processes.
73. **Robot Ethics** - Study of the ethical and social aspects of robotics and AI.
74. **Robot Kinematics** - Study of the movements of a robot.
75. **Robot Intelligence** - Study of the intelligence and learning of a robot.
76. **Robot Architecture** - Structural analysis and design of a robot.
77. **Robot Learning** - The ability of a robot to self-intelligence and learn.
78. **Robot Control** - The process of controlling the activities of a robot.
79. **Human-Robot Collaboration** - Study of partnership between humans and robots.
80. **Robot Interaction** - The process of human dialogue with a robot.
81. **Robotic Automation** - The process of operating automated processes through robots.
82. **Robot Ethics** - Study of the ethical and social aspects of robotics and AI.
83. **Robot Sensing** - The ability of a robot to perceive its surroundings.
84. **Robot Dynamics** - Study of the movements and consequences of a robot.
85. **Robot Simulation** - Modeling and experimentation of a robot's activities.
86. **Robot Navigation** - The process of transferring the position of a robot.
87. **Robotics Engineering** - Study of education and research in the field of robotics.
88. **Robot Programming** - Use of computer programs to control a robot's activities.
89. **Robot Swarm** - Many robots working in a group.
90. **Robot Locomotion** - The process or motion of a robot.
91. **Robot Perception** - The ability of a robot to understand surrounding conditions.
92. **Robot Adaptation** - The ability of a robot to adapt to conditions.
93. **Robot Cooperation** - The ability to work between two or more robots.
94. **Robot Stability** - Quality of a robot's position or stability.
95. **Robot Communication** - The process of communication between robots.
96. **Robot Collaboration** - Cooperation and working together between robots.
97. **Robot Integration** - The process of organizing robots together.
98. **Robot Decision Making** - The ability of a robot to take action or make decisions.
99. **Robot Safety** - Guarantee of safety for both the robot and the user.
100. **Robot Autonomy** - The ability of a robot for independence and self-sufficiency.

## 24. Neural Network

1. **Artificial Neural Network (ANN)** - This is a computerized network that mimics human brain functions.
2. **Neuron** - Neuron is the basic unit of a neural network that processes input data and generates output.
3. **Activation Function** - A function that determines the output of a neuron's activation.
4. **Input Layer** - The first layer of the network that accepts input data.
5. **Hidden Layer** - The middle layer of the network that extracts hidden features from the input.
6. **Output Layer** - The final layer of the network that sends out output data.
7. **Backpropagation** - The process of identifying errors deep within the network to present corrections.
8. **Deep Learning** - The process of learning from large datasets using large and deep networks.
9. **Convolutional Neural Network (CNN)** - A type of ANN specifically designed for processing imagery and videos.
10. **Recurrent Neural Network (RNN)** - An ANN that captures sequences of messages by iterating over them.
11. **Long Short-Term Memory (LSTM)** - A type of RNN that remembers sequences over a long period.
12. **Gradient Descent** - An algorithm that guides the network to reduce its errors.
13. **Overfitting** - When the network overly focuses on the training set and fails to perform well on new data.
14. **Underfitting** - When the network's capacity is too low to fully learn the training set.
15. **Dropout** - A technique used to mitigate overfitting by randomly deactivating neurons.
16. **Activation Threshold** - The threshold of input necessary to activate a neuron.
17. **Weight** - The values of a neuron's activations.
18. **Bias** - An additional neuron that provides a bias towards activation for the network.
19. **Learning Rate** - The rate at which the network adjusts its weights for each update.
20. **Batch Size** - The maximum number of samples used for each update.
21. **Epoch** - A complete cycle of passing through the entire dataset.
22. **Learning Algorithm** - The method used to define the process of learning by the network.
23. **Loss Function** - A function used to measure the errors in the network's generated outputs.
24. **Mini-Batch Gradient Descent** - Using data in small batches during learning.
25. **Vanishing Gradient** - A problem where the gradient becomes too small and affects the network's learning.
26. **Exploding Gradient** - A problem where the gradient becomes too large and negatively impacts the network.
27. **Autoencoder** - A neural network type that compresses data by reconstructing it from the input.
28. **Generative Adversarial Network (GAN)** - Two networks that compete to generate new data samples.
29. **Transfer Learning** - A technique where pre-existing knowledge is used to train a network for a new task.
30. **Attention Mechanism** - A mechanism that focuses the network's attention on specific elements.
31. **Feedforward Neural Network** - A neural network type where data flows in a logical path.
32. **Recurrent Neural Network (RNN)** - A type of neural network that determines a processing flow by considering previous states.
33. **Long Short-Term Memory (LSTM)** - An RNN type that remembers actions over long durations.
34. **Convolutional Neural Network (CNN)** - A neural network type specialized in error detection in images and videos.
35. **Deep Belief Network (DBN)** - A network type used for improving doubtful data.
36. **Boltzmann Machine** - A representative machine used for simulating sensitivity.
37. **Perceptron** - The simplest form of a commonly used neural network.
38. **Supervised Learning** - The process of studying correct answers associated with data.
39. **Unsupervised Learning** - The process of studying data without associated answers, usually affecting structure.
40. **Semi-supervised Learning** - A process of studying data with some associated answers and some without.
41. **Semi-supervised Learning** - A process of studying data with some associated answers and some without.
42. **Self-organizing Maps (SOM)** - A unique neural network type that self-organizes.
43. **Hopfield Network** - A type of neural network used to store memory processes.



44. **Adaptive Resonance Theory (ART)** - A neural network type that adapts new knowledge to old knowledge.
45. **Radial Basis Function Network (RBFN)** - A neural network type that uses radial functions.
46. **Echo State Network (ESN)** - A neural network type that stores information about specific states.
47. **Hopfield Network** - A type of neural network used to store memory processes.
48. **Associative Memory** - A representation that stores data in memory through a neural network.
49. **Bayesian Neural Network** - A neural network type that uses Bayesian content.
50. **Energy-Based Model** - A model type that uses an energy function to determine the priority of states.

## **25. Cybersecurity**

1. **Cybersecurity:** The process of keeping internet and computer systems secure.
2. **Malware:** Software designed to cause harm to a computer.
3. **Virus:** A computer program that replicates itself and communicates with other programs.
4. **Firewall:** A software or hardware used in network security.
5. **Encryption:** The process of securing information from unauthorized access.
6. **Data Breach:** Unauthorized access to stored or processed data.
7. **Cyber Attack:** The act of attacking the internet or computer systems.
8. **Phishing:** Attempt to steal your private information through deception or fraud.
9. **Cybercrime:** The process of committing crimes on the internet or computer systems.
10. **Ransomware:** Software that demands money to regain control of a computer.
11. **Cybersecurity Awareness:** The process of educating users about cyber security risks.
12. **Vulnerability:** A feature of a system that can be exploited for an attack.
13. **Patch:** A specific modification to fix a security issue in software.
14. **Identity Theft:** Stealing someone else's identity or information unlawfully.
15. **Cybersecurity Framework:** A framework or model for the stability and structure of security.
16. **Cyber Hygiene:** Adherence to principles and cyber policies for safe and clean internet browsing.
17. **Two-Factor Authentication:** Process of verifying user identity with two different types of identification.
18. **Cyber Forensics:** Process of investigating cyber crimes and examining their underlying flaws.
19. **Endpoint Security:** Process of securing network endpoint devices.
20. **Cyber Threat Intelligence:** Gathering information against suspected activities of network and cyber attacks.
21. **Penetration Testing:** Assessment of authorized access through the security process of a network or system.
22. **Cyber Attack Vector:** Medium or technique used to attack the internet or network.
23. **Data Loss Prevention (DLP):** Process of securing stored data from unauthorized access.
24. **Cyber Insurance:** A type of insurance to compensate for losses after a cyber attack.
25. **Incident Response:** Rapid action plan against cyber attacks within an organization.
26. **Cybersecurity Governance:** Management of an organization's cybersecurity policies, processes, and standards.
27. **Cyber Warfare:** Use of cyber attacks in conflict with organizations or nations.
28. **Zero-Day Exploit:** Process of preparing one's use first for exploiting security flaws in software or hardware.
29. **Botnet:** Network of computers created to control organization computers unlawfully.
30. **Cyber Kill Chain:** Description of the process of cyber attacks, from start to finish.
31. **Intrusion Detection System (IDS):** System used to detect unauthorized access to a network or system.
32. **Distributed Denial of Service (DDoS):** Organized process of attacking a network to make internet service unstable.
33. **Cyber Espionage:** Comprehensive process of cyber attacks for private information and organizational strategies.
34. **Insider Threat:** Potential risk of private information leaked or accessed by individuals within an organization.
35. **Cybersecurity Incident:** Outcome of a struggle outside of security controls that mitigates security breaches.
36. **Digital Forensics:** Process of investigating flaws behind digital suspicious or criminal activities.
37. **Cybersecurity Policy:** Policy that defines an organization's cybersecurity objectives and standards.

38. **Digital Certificate:** Digital credential used to authenticate a computer user strongly.
39. **Cyber Resilience:** Status of an organization's resilience and utility against cyber attacks.
40. **Cybersecurity Awareness Training:** Process of educating employees about cyber security risks and precautions.
41. **Cybersecurity Culture:** Process of valuing cyber security and encouraging secure behavior in an organization.
42. **Cybersecurity Governance:** Management of cybersecurity policies, processes, and standards in an organization.
43. **Cybersecurity Framework:** Framework or model for security stability and structure.
44. **Cybersecurity Incident Response Plan:** Plan for rapid action against cyber attacks within an organization.
45. **Cybersecurity Risk Management:** Process of managing cybersecurity-related risks within an organization.
46. **Cybersecurity Operations Center (CSOC):** Center for tracking and responding to an organization's cybersecurity incidents.
47. **Cybersecurity Incident Management:** Process of managing the impact of cyber attacks within an organization.
48. **Cybersecurity Threat Intelligence:** Information against assumptions about an organization's cybersecurity.
49. **Cybersecurity Incident Reporting:** Reporting process for informing an organization about cyber attacks.
50. **Cybersecurity Audit:** Standardized examination of an organization's cybersecurity status.
51. **Security Breach** - Unauthorized access to secure information of an organization.
52. **Network Security** - The process and measures taken to secure a network.
53. **Cybersecurity Incident Response Team (CIRT)** - A team responsible for managing an organization's cybersecurity incidents.
54. **Cybersecurity Training Program** - A plan to educate employees on cybersecurity issues.
55. **Cybersecurity Incident Management Plan** - A plan to manage the impact of cybersecurity incidents in an organization.
56. **Cybersecurity Risk Assessment** - Evaluation of risks associated with an organization's cybersecurity.
57. **Security Controls** - Measures that affect the security status of an organization.
58. **Cybersecurity Incident Notification** - The process of informing an organization about a cybersecurity attack.
59. **Cybersecurity Breach Investigation** - The process of investigating cybersecurity breaches in an organization.
60. **Security Patch Management** - The process of managing security updates.
61. **Cybersecurity Incident Handling** - The process of handling cybersecurity incidents within an organization.
62. **Security Awareness Program** - A program to educate employees about the importance of staying secure.
63. **Cybersecurity Compliance** - The process of adhering to cybersecurity standards within an organization.
64. **Security Incident** - A security-related event occurring within an organization.
65. **Cybersecurity Framework Implementation** - The process of implementing cybersecurity standards within an organization.
66. **Cybersecurity Risk Mitigation** - The process of reducing cybersecurity-related risks.
67. **Security Incident Response Team (SIRT)** - A team responsible for responding to security incidents within an organization.
68. **Cybersecurity Risk Register** - A register of cybersecurity-related risks within an organization.
69. **Security Incident Management** - The process of managing security incidents within an organization.
70. **Cybersecurity Incident Classification** - The process of categorizing cybersecurity incidents.
71. **Security Incident Reporting** - Reporting security-related incidents within an organization.
72. **Cybersecurity Incident Analysis** - The process of analyzing cybersecurity incidents.
73. **Security Policy** - A collection of rules and standards related to security within an organization.
74. **Cybersecurity Strategy** - An organization's strategy for cybersecurity.
75. **Security Incident Response Plan** - A plan for responding to security incidents within an organization.
76. **Security Incident Notification** - The process of notifying an organization about security incidents.
77. **Cybersecurity Risk Assessment Framework** - A framework for assessing cybersecurity risks within an organization.
78. **Security Incident Log** - A log of security-related incidents within an organization.
79. **Cybersecurity Incident Response Planning** - The process of planning for cybersecurity incident response within an organization.
80. **Security Awareness Training** - The process of educating employees about security matters.
81. **Cybersecurity Incident Handling Procedures** - Procedures for handling cybersecurity incidents within an organization.
82. **Security Risk Management** - The management of security-related risks within an organization.

83. **Cybersecurity Awareness Campaign** - A campaign to raise awareness about cybersecurity among employees and other members of an organization.
84. **Security Incident Response Process** - The process of responding to security incidents within an organization.
85. **Cybersecurity Threat Assessment** - Assessment of cybersecurity-related threats within an organization.
86. **Security Incident Response Team (SIRT) Training** - Training for the team responsible for responding to security incidents within an organization.
87. **Cybersecurity Incident Recovery** - The process of recovering from cybersecurity incidents within an organization.
88. **Security Incident Response Training** - Training for responding to security incidents within an organization.
89. **Cybersecurity Incident Investigation** - The investigation of cybersecurity incidents within an organization.
90. **Cybersecurity Risk Assessment Process** - The process of assessing cybersecurity risks within an organization.
91. **Cybersecurity Incident Management Policy** - A policy for managing cybersecurity incidents within an organization.
92. **Security Incident Response Team Training** - Training for the team responsible for responding to security incidents within an organization.

## **26.Virtual Reality (VR) & Augmented Reality (AR)**

1. **Virtual Reality (VR):** A computer technology process in which a user experiences a separate and esteemed world from reality.
2. **Augmented Reality (AR):** The process of adding digital objects and information to the real environment to produce a specific result.
3. **Head-Mounted Display (HMD):** A type of display worn on the user's head that helps them experience virtual reality.
4. **Immersion:** The user's immersive experience in virtual reality where they become completely engaged in reality.
5. **Tracking:** A process where the device's position and status are determined to provide accurate virtual experiences.
6. **Telepresence:** A technique of experiencing a remote reality where the user feels as though they are elsewhere.
7. **Simulation:** A process of replicating events that may not exist in reality.
8. **Motion Tracking:** The process of tracking user movements in virtual reality.
9. **3D Modeling:** The process of creating a digital model of a three-dimensional object.
10. **Virtual Environment:** A specific setting created on a computer where users can experience.
11. **Gesture Recognition:** The process of tracking and understanding the movements of a user's hands and body.
12. **Mixed Reality (MR):** The process of providing a specific experience by mixing real and digital objects.
13. **Field of View (FOV):** The amount of area displayed on a virtual reality or augmented reality display.
14. **Spatial Audio:** The process of simulating sound information from all around the user in a virtual reality experience.
15. **Haptic Feedback:** Tactile responses provided to users to simulate the sensation of real or simulated objects.
16. **Virtual Hand:** An object representing the user's hand in virtual reality.
17. **Spatial Mapping:** The process of obtaining and collecting data from a distance to replicate a real environment in virtual reality or augmented reality.
18. **Motion Controller:** A device used in virtual reality or augmented reality to track the movements of a user's hands.
19. **Eye Tracking:** The process of tracking the movements of a user's eyes, commonly used in virtual reality.
20. **Depth Sensing:** The process of measuring and displaying the depth of objects in virtual reality.
21. **Interactivity:** The degree of responsibility or activity with a user in a virtual reality experience compared to programs.
22. **Latency:** The amount of time it takes for a user's commands to be responded to in a virtual reality experience.
23. **Avatar:** A digital or computer-generated image representing the user in virtual reality.
24. **Rendering:** The process of changing digital or real objects into graphics and behavior in virtual reality.
25. **Field Trip:** The use of virtual reality or augmented reality for educational or tourism purposes, mimicking real travel.
26. **Virtual World:** A digital or synthetic structure where diversity, sound, activities, and experiences are replicated.
27. **Virtual Tour:** The process of touring a place using virtual reality.
28. **Augmented Reality Glasses:** A type of display that adds digital objects to the real world.
29. **Virtual Classroom:** The process of providing educational programs online using virtual reality.
30. **Hand Tracking:** The process of tracking the movements of a user's hands, commonly used in virtual reality.

31. **VR Gaming:** The process of incorporating virtual reality experiences into games.
32. **Virtual Museum:** The process of touring a museum using virtual reality.
33. **Virtual Training:** The process of providing training to users using virtual reality.
34. **Virtual Reality App:** A mobile or computer application that provides a virtual reality experience.
35. **VR Content:** A collection of digital content prepared for virtual reality experiences.
36. **VR Simulation:** The process of simulating events that do not occur in reality in virtual form.
37. **VR Experience:** An experience obtained using virtual reality.
38. **AR Navigation:** The process of guiding navigation using augmented reality.
39. **AR Application:** A mobile or computer application that provides an augmented reality experience.
40. **AR Overlay:** The process of projecting digital objects onto the real world.
41. **VR Headset:** A device worn on the user's head for virtual reality experiences.
42. **AR Marker:** A small print or pattern that triggers an augmented reality experience.
43. **VR Motion Sickness:** Inappropriate experiences felt by users while using virtual reality.
44. **AR Development:** The process of developing software or applications for augmented reality experiences.
45. **VR Interface:** Devices or techniques for interacting with users in virtual reality experiences.
46. **AR Projection:** The process of projecting digital information onto the real world.
47. **VR Environment:** A digital setting where users experience virtual reality.
48. **AR Browser:** An application that displays digital information in the real world.
49. **VR Training:** The process of providing training using virtual reality experiences.
50. **AR Simulation:** The process of simulating events that do not occur in reality using augmented reality.

## **27.Blockchain**

1. **Blockchain** - A technical protocol that securely stores data in a digital ledger.
2. **Cryptocurrency** - A digital or virtual currency used for online transactions and based on blockchain technology.
3. **Decentralization** - A technical structure in which operation occurs without any central organization or authoritative authority.
4. **Distributed Ledger** - The technical process of storing data according to the blockchain protocol.
5. **Smart Contract** - An arrangement of automated actions executed on the blockchain.
6. **Node** - A computer or device that is part of a blockchain network and processes data.
7. **Consensus** - A process of agreement among all nodes in a blockchain network to verify the authenticity of data.
8. **Mining** - The process of creating new blocks in the blockchain network and maintaining network security.
9. **Fork** - The process of change in a blockchain protocol, creating a separate and permanent network.
10. **Immutable** - Once data entry or transaction is made in the blockchain, it cannot be altered.
11. **Public Key** - A cryptographic key for blockchain transactions used for user identification.
12. **Private Key** - A secure cryptographic key for blockchain transactions used for signing transactions.
13. **Token** - A digital symbol in a blockchain network provided for data or services.
14. **Proof of Work (PoW)** - A verification process in blockchain that uses computational power.
15. **Proof of Stake (PoS)** - A verification process in blockchain that uses the quantity of coins.
16. **Forking** - The process of change in a blockchain protocol, altering the network structure.
17. **Genesis Block** - The initial block of a blockchain network used as a reference for all subsequent blocks.
18. **Merkle Tree** - A data structure in blockchain for verifying data integrity.
19. **Double Spending** - The process of using a cryptocurrency twice, which is illegitimate.
20. **Consensus Mechanism** - Methods and processes used to establish consensus in a blockchain network.
21. **Block Reward** - The reward given to miners for creating new blocks through mining.
22. **Hard Fork** - The process of making significant changes to a blockchain protocol, resulting in a separate branch from the previous one.
23. **Soft Fork** - The process of making nominal changes to a blockchain protocol, remaining compatible with the previous branch.
24. **Consensus Algorithm** - Algorithms used to manage the consensus verification process in a blockchain network.



25. **Transaction Fee** - Fee paid for transaction processing.
26. **Block Height** - The number of the most recent block in the blockchain, used as a reference for all previous blocks.
27. **Wallet** - Digital or hardware device for storing and managing cryptocurrencies.
28. **Tokenization** - The process of converting various assets into digital tokens on the blockchain.
29. **ICO (Initial Coin Offering)** - Process of selling tokens to private investors to launch a new cryptocurrency.
30. **DAO (Decentralized Autonomous Organization)** - An organization operating without centralization and governance.
31. **Gas** - A unit for paying fees for blockchain transactions.
32. **Fork Resistance** - A feature of blockchain protocol that rejects forks in the network.
33. **DApp (Decentralized Application)** - An application dependent on blockchain protocol that supports autonomy and transparency.
34. **Immutable Ledger** - A data structure where data entry cannot be changed once made.
35. **Validator** - Nodes used to verify the authenticity of transactions on the blockchain network.
36. **Byzantine Fault Tolerance (BFT)** - The ability of a blockchain network to maintain integrity despite discrepancies.
37. **Cryptographic Hash Function** - A specific type of cryptographic function used to transform data into a unique and compact digest.
38. **Atomic Swap** - Transaction process between two different cryptocurrencies without intermediaries.
39. **Off-Chain** - Processes outside the blockchain network's main chain.
40. **On-Chain** - Processes within the blockchain network's main chain.
41. **Zero-Knowledge Proof** - A verification process allowing one party to prove the authenticity of information without revealing it to another party.
42. **Multisignature (Multisig)** - Concept of a smart contract or wallet requiring more than one cryptographic signature for a transaction.
43. **Forking Attack** - Attack manipulating the update process of a blockchain network, often exploiting insufficiently supported prior assumptions.
44. **Genesis Block** - The initial block of a blockchain network used as a reference for all subsequent blocks.
45. **Sidechain** - A highly secure blockchain separate from the main blockchain.
46. **Timestamp** - A sign of time used to permanently store data.
47. **Hash Rate** - Measure of a blockchain network's capacity or speed, typically expressed in hashes per second (H/s).
48. **Token Standard** - A common and established format or standard for tokens on the blockchain.
49. **Scaling** - The process of increasing the capacity of a blockchain protocol to handle more transactions.
50. **Fork Selection Rule** - Rules or processes used to select forks in a blockchain network.
51. **Block Size** - The maximum amount of data in a block in blockchain.
52. **Orphan Block** - A block that becomes detached from the main blockchain due to not being validated.
53. **Double Hashing** - The process of hashing a hash again to enhance data security and validation.
54. **Key Pair** - A pair of cryptographic keys, consisting of a public key and a private key.
55. **Permissioned Blockchain** - A blockchain that is operated by identified nodes controlled by specific users.
56. **Immutable Transaction** - Transactions that have been concluded in blockchain and are unavailable for any modifications.
57. **Fork Resolution** - The method adopted by a network to resolve the process of forking.
58. **Byzantine Fault** - The capacity of a blockchain network to be responsible for inconsistencies.
59. **Segregated Witness (SegWit)** - A process in the blockchain protocol that separates data, simplifying transaction fee calculation.
60. **Cryptographic Signature** - A digital signature generated by a key to authenticate an individual's identity.
61. **Side Channel Attack** - A technique used to exploit cryptographic processes in an insecure manner.
62. **Public Blockchain** - A network operated by any individual or organization, allowing any user to participate.
63. **Hardened Key** - A securely generated key resistant to any fraudulent reproduction.
64. **Nonce** - A unique number used in blockchain to validate a block.
65. **Key Generation** - The process of generating cryptographic keys, which should be done securely.
66. **Atomicity** - The property of sensitivity in a transaction process.
67. **Token Economy** - A system utilizing tokens to incentivize users.
68. **Merkle Root** - A hash used as a representation of a data structure in blockchain.
69. **Byzantine Generals' Problem** - The challenge of solving distrustful inconsistencies in a digital network.

- 70. **Turing Complete:** A computer program or protocol that supports all capabilities of a Turing machine.
- 71. **Provenance:** The requirement of verification or authentication for a content or product.
- 72. **Hyperledger:** An open-source blockchain project developed specifically for the industry.
- 73. **Block Explorer:** A web application for exploring and viewing transaction and block information in a blockchain.
- 74. **Scripting Language:** A programming language used to define code snippets for blockchain transactions.
- 75. **Smart Contract:** A self-executing contract fulfilling an agreement, operating on a blockchain protocol.

## 28. Deep Learning

- 1. **Neural Network:** A computational model that mimics the structure and function of the human brain, consisting of multiple nodes (neurons) that are interconnected and process information.
- 2. **Deep Learning:** A subfield of machine learning that utilizes multiple layers of networks to learn how data can be represented in a remarkable way.
- 3. **Artificial Intelligence:** A field of science involving machines that mimic human cognitive functions, such as learning, reasoning, and problem-solving.
- 4. **Backpropagation:** An algorithm used to adjust the weights of a neural network to identify and correct errors.
- 5. **Convolutional Neural Network (CNN):** A type of neural network used for digital image processing.
- 6. **Recurrent Neural Network (RNN):** A type of neural network used to learn sequential data, such as words or sentences.
- 7. **Deep Belief Network (DBN):** A type of neural network with multiple layers that can learn in an extraordinary way.
- 8. **Autoencoder:** A neural network model that reconstructs data, enabling feature learning and data purification.
- 9. **Dropout:** A technique in neural network training to prevent overfitting by randomly dropping out neurons during training.
- 10. **Activation Function:** A function applied to the output of each neuron in a neural network, introducing non-linearity.
- 11. **Gradient Descent:** An optimization algorithm that adjusts weights to minimize errors in a network.
- 12. **Loss Function:** A function that measures how well a neural network is performing.
- 13. **Softmax:** A type of activation function that converts initial outputs into percentages.
- 14. **Tensor:** A mathematical object representing data in multiple dimensions.
- 15. **Transfer Learning:** A type of learning where a pre-trained model is used for a new task.
- 16. **Generative Adversarial Network (GAN):** A type of neural network system where two models (generator and discriminator) are trained competitively.
- 17. **Overfitting:** A situation where a network learns training data too well but struggles with new data due to maximum errors.
- 18. **Underfitting:** A situation where a network fails to learn adequately from training and test data.
- 19. **Batch Normalization:** A technique used to improve the stability and speed of a network.
- 20. **Hyperparameter:** A parameter set before constructing the network.
- 21. **Long Short-Term Memory (LSTM):** A type of neural network architecture that remembers long-term short activities.
- 22. **Attention Mechanism:** A technique aiding the network to focus on specific parts.
- 23. **Capsule Network:** A type of neural network that helps understand hierarchical relationships.
- 24. **Reinforcement Learning:** A type of machine learning that teaches an agent to interact with an environment.
- 25. **Deep Q-Network (DQN):** A robust reinforcement learning algorithm used to learn Q-learning.
- 26. **Word Embedding:** A technique representing words in a continuous vector space.
- 27. **Variational Autoencoder (VAE):** A generative model using variational distribution for representation.
- 28. **Word2Vec:** A technique representing words as vectors.
- 29. **Attentional BiLSTM:** A neural network architecture used for sequence-to-sequence tasks.
- 30. **Gated Recurrent Unit (GRU):** A type of neural network unit that learns a lot.
- 31. **Sequence-to-Sequence Model:** A model using previous output to generate expected output.
- 32. **End-to-End Learning:** A technique representing data directly from data.
- 33. **Weight Initialization:** A technique setting weights to initial values.
- 34. **Learning Rate:** A hyperparameter determining the speed of network learning.

35. **Mini-Batch:** A small dataset used for training the network.
36. **Dropout:** A technique to prevent overfitting in a neural network by randomly removing some neurons during training.
37. **Activation Function:** A function that transforms the output of a neuron and presents non-linearity.
38. **Gradient Descent:** An optimization technique adjusting weights to minimize network errors.
39. **Loss Function:** A function measuring the performance of a network.
40. **Softmax:** An activation function converting initial outputs into percentages.
41. **Tensor:** A mathematical object consisting of multidimensional data.
42. **Transfer Learning:** A technique using a pre-trained model for a new task.
43. **Generative Adversarial Network (GAN):** A neural network system where two models (generator and discriminator) are trained competitively.
44. **Variational Autoencoder (VAE):** A generative model using variational distribution for representation.
45. **Learning Rate:** A hyperparameter determining the speed of network learning.
46. **Mini-Batch:** A small dataset used for training the network.
47. **Epoch:** A cyclical process of training the network on the entire dataset once.
48. **Regularization:** A technique used to prevent overfitting in a network.
49. **Data Augmentation:** A technique increasing the size of a dataset to provide more data for network learning.
50. **Ensemble Learning:** A technique where multiple models are combined to achieve better results together.
51. **Hyperparameter Tuning:** A process in which hyperparameters are adjusted to improve the performance of the network.
52. **Stochastic Gradient Descent (SGD):** An optimization technique used to train networks, which updates weights for each data batch.
53. **Learning Rate Decay:** A process in which the learning rate is gradually reduced over time.
54. **Early Stopping:** A technique where network training is halted when its performance starts deteriorating.
55. **Activation Map:** Measurement of the level of neuron activation at each location in an image.
56. **One-Hot Encoding:** A technique to represent categorical data in binary form.
57. **Vanishing Gradient:** A problem when the gradients of a neural network become very small, causing difficulty in learning.
58. **Exploding Gradient:** A problem when the gradients of a network become very large, causing issues in optimization.
59. **Adversarial Examples:** A dataset where techniques are used to deceive a network.
60. **Overparameterization:** A state where a network has excessive parameters, making it difficult for the network to understand.
61. **Bayesian Optimization:** An optimization technique used to adjust hyperparameters.
62. **Data Imputation:** Process of providing data in place of missing data.
63. **Biometric Recognition:** Identification using individual perception or physical characteristics.
64. **Self-Organizing Maps (SOM):** A type of deep learning that presents data in tabular form.
65. **Inference:** The process of presenting output by the network.
66. **Data Preprocessing:** The process of cleaning, structuring, and preparing data.
67. **Recurrent Neural Network (RNN):** A network system that processes sequential data using previous outputs.
68. **Precision and Recall:** Measures of a model's accuracy and prediction.
69. **Autoencoder:** A type of network that self-represents data, often used for data compression.
70. **Semantic Segmentation:** A technique that understands the semantic meaning of images by segmenting them.
71. **Attention Score:** A technique for measuring the level of attention, often used in transfer learning.
72. **Inception Module:** A module type in deep network architecture that increases the depth of the network.
73. **Kernel:** A method of processing data similar to convolution on an image.
74. **Kullback-Leibler Divergence:** A measure of the difference between two distributions.
75. **Multi-Head Attention:** A form of attention mechanism that focuses on multiple categories.
76. **Neuron:** The basic processing unit of a network that processes data.
77. **Normalization:** The process of stabilizing data in a normal range.
78. **Pooling Layer:** A process used to compress the output of a network.
79. **Word Tokenization:** A technique where words are divided into separate tokens.
80. **Word Dropout:** A technique where some words are excluded during the training process.

## 29.Quantum Computing

1. **Quantum Computing:** A computing system that utilizes quantum mechanics and processes information through quantum bits.
2. **Quantum Bit (Qubit):** A unit used for quantum superposition and quantum entanglement.
3. **Superposition:** The state of a quantum bit that exists in multiple states simultaneously.
4. **Entanglement:** Linking a relationship between two or more quantum bits.
5. **Quantum Gate:** Quantum logic gates used to process quantum bits.
6. **Deutsch-Jozsa Algorithm:** Effectively used on quantum computers to support binary functions.
7. **Grover's Algorithm:** A quantum algorithm used for searching in a list.
8. **Shor's Algorithm:** A quantum algorithm for factoring large numbers.
9. **Quantum Teleportation:** The process of transferring quantum information from one location to another.
10. **Quantum Supremacy:** A state where a quantum computer surpasses classical computers in specific capabilities.
11. **Hamiltonian:** An operator presenting the energy of a quantum system in numerical form.
12. **Bloch Sphere:** A three-dimensional sphere illustrating the state of a quantum bit.
13. **No-Cloning Theorem:** In quantum mechanics, it's impossible to clone a quantum state.
14. **Bell State:** A special entangled state between two qubits.
15. **Decoherence:** Loss of quantum state coherence, leading to changes in the excited state of a quantum system.
16. **Bra-Ket Notation:** Notation used in quantum linear algebra to write quantum states.
17. **Quantum Circuit:** A sequence of quantum logic gates representing quantum computation.
18. **Quantum Cryptography:** The process of secure message communication using quantum principles.
19. **Quantum Error Correction:** Techniques used to correct quantum errors.
20. **Topological Quantum Computing:** A specific type of quantum computing using topological quantum points.
21. **Quantum Annealing:** A technique in quantum computing used to explore special structures.
22. **Quantum Machine Learning:** Using quantum computing for data analysis and model preparation.
23. **Quantum Random Number Generator:** A technique producing random numbers using quantum physics.
24. **Quantum Key Distribution:** A quantum technique for secure key sharing.
25. **Quantum Sensor:** Sensors used to measure extremely small changes.
26. **Quantum Metrology:** Using quantum techniques for extremely small measurements.
27. **Quantum Circuit Compilation:** The process of generating structured circuits in the context of quantum gates.
28. **Quantum Simulator:** A computer program modeling quantum behavior.
29. **Quantum Networking:** Network infrastructure for quantum communication.
30. **Quantum Cloud Computing:** Cloud-based services for quantum computing.
31. **Quantum Algorithm:** Algorithms used in quantum computing.
32. **Quantum Field:** Quantum fields in bosons and fermions.
33. **Quantum Annealer:** A computer or type of computer that mimics the quantum annealer model.
34. **Quantum Chemistry:** Using quantum computing for studying chemical processes.
35. **Quantum Advantage:** Summary of the advantages of quantum computers.
36. **Quantum Volume:** Measure of the capability of quantum computing.
37. **Quantum Register:** Support for groups of quantum bits.
38. **Quantum Processor:** A computer used to tailor quantum logic gates.
39. **Quantum Memory:** Technology used to store the state of quantum bits.
40. **Quantum Gate Array:** A group of quantum logic gates used to create quantum circuits.
41. **Quantum Network Topology:** Definition and structure of quantum network forms.
42. **Quantum Logic:** A type of computer ethics for quantum gates.
43. **Quantum Error Rate:** Rate of errors in a quantum system.



44. **Quantum Register:** Support for groups of quantum bits.
45. **Quantum Simulator:** A computer program modeling quantum behavior.
46. **Quantum Phase:** A facet of the state of quantum bits.
47. **Quantum Cryptanalysis:** Using quantum computing to break cryptographic protocols.
48. **Quantum Algorithm:** Algorithms used in quantum computing.
49. **Quantum Channel:** Communication path for quantum information.
50. **Quantum Tunneling:** Process of quantum particles overcoming high-energy barriers.
51. **Quantum Circuit:** A sequence of quantum logic gates that represents quantum computation.
52. **Quantum Key Distribution:** Quantum technique for securely sharing keys.
53. **Quantum Radar:** Use of quantum systems for radar applications.
54. **Quantum Walk:** A type of quantum path on a graph.
55. **Quantum Communication:** Use of quantum techniques for communication.
56. **Quantum Phase Transition:** Change in a quantum system's specific state.
57. **Quantum Amplitude:** Measure of magnitude of a quantum state.
58. **Quantum Dot:** Tiny stable point used for quantum message communication.
59. **Quantum Emulator:** Device that simulates quantum systems.
60. **Quantum Error Correction:** Technique used to correct quantum errors.
61. **Quantum Gate:** Type of quantum logic gate.
62. **Quantum Annealing:** Technique in quantum computing used to explore specific structures.
63. **Quantum Machine Learning:** Use of quantum computing for data analysis and model building.
64. **Quantum Random Number Generator:** Technique for generating random numbers using quantum physics.
65. **Quantum Key Distribution:** Quantum technique for securely sharing keys.
66. **Quantum Supremacy:** Summary of the benefits of quantum computers.
67. **Hamiltonian:** Operator representing energy quantization in a quantum system.
68. **Bloch Sphere:** Three-dimensional sphere representing quantum bit states.
69. **No-Cloning Theorem:** Impossibility of copying a quantum state in quantum mechanics.
70. **Bell State:** Special entangled state between two qubits.
71. **Decoherence:** Loss of coherence in quantum measurement, leading to changes in the excited state of a quantum system.
72. **Bra-Ket Notation:** Notation used in quantum linear algebra to represent quantum states.
73. **Quantum Circuit:** A sequence of quantum logic gates that represents quantum computation.
74. **Quantum Field:** Bosonic and fermionic quantum fields in quantum physics.
75. **Quantum Annealer:** Computer or device that mimics the quantum annealer model.
76. **Quantum Chemistry:** Use of quantum computing in studying chemical processes.
77. **Quantum Advantage:** Summary of the advantages of quantum computers.
78. **Quantum Volume:** Measure of the capability of quantum computing.
79. **Quantum Register:** Support for a group of quantum bits.
80. **Quantum Processor:** Computer used to manipulate quantum logic gates.
81. **Quantum Memory:** Technology used to store the state of quantum bits.
82. **Quantum Gate Array:** Group of quantum logic gates used to create quantum circuits.
83. **Quantum Network Topology:** Definition and structure of a quantum network.
84. **Quantum Logic:** Type of computer ethics using quantum gates.
85. **Quantum Error Rate:** Number of errors in a quantum system.
86. **Quantum Register:** Support for a group of quantum bits.
87. **Quantum Simulator:** Computer program that models quantum behavior.
88. **Quantum Phase:** Aspect of the state of quantum bits.
89. **Quantum Cryptanalysis:** Use of quantum computing to break cryptographic schemes.

90. **Quantum Algorithm:** Algorithms used in quantum computing.
91. **Quantum Channel:** Communication path for quantum information.
92. **Quantum Tunneling:** Process of overcoming high-energy barriers in quantum mechanics.
93. **Quantum Circuit:** A sequence of quantum logic gates that represents quantum computation.
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95. **Quantum Radar:** Use of quantum systems for radar applications.
96. **Quantum Walk:** A type of quantum path on a graph.
97. **Quantum Communication:** Use of quantum techniques for communication.
98. **Quantum Phase Transition:** Change in a quantum system's specific state.
99. **Quantum Amplitude:** Measure of magnitude of a quantum state.
100. **Quantum Dot:** Tiny stable point used for quantum message communication.

## **30. Computer Vision**

1. **Computer Vision:** A process of acquiring and analyzing visual information by a computer user.
2. **Image Processing:** The collection and processing of digital images.
3. **Pixel:** Small points in images used for the representation and display of digital images.
4. **Edge Detection:** The process of identifying edges in an image, which divides them and presents them as borders or contrasts.
5. **Feature Extraction:** The process of identifying important or specific characteristics from data.
6. **Object Recognition:** The ability to recognize objects in digital images or videos.
7. **Convolutional Neural Network (CNN):** A type of deep learning model used for processing images or other features.
8. **Image Classification:** The process of categorizing digital images into different classes.
9. **Optical Character Recognition (OCR):** Machine capability to recognize text from standard images.
10. **Image Segmentation:** The process of dividing images into segmented or chopped portions.
11. **Deep Learning:** A branch of machine learning that utilizes large datasets and more sophisticated architectures.
12. **Machine Vision:** Uses computer processing to interpret visual data.
13. **Supervised Learning:** A learning process where appropriate responses are identified within training data.
14. **Unsupervised Learning:** A type of machine learning that studies patterns in data without training data.
15. **Semi-Supervised Learning:** A hybrid machine learning technique that trains on most of the data but has some labeled training data.
16. **Data Augmentation:** Technique to increase the usefulness of a dataset.
17. **Optical Flow:** A type of suspiciousness in images that changes during specific expansions.
18. **Object Detection:** The process of identifying objects in digital images.
19. **Facial Recognition:** The process of identifying faces in digital images.
20. **Pose Estimation:** The process of recognizing the position and shape of individuals in digital images.
21. **Histogram Equalization:** The process of improving color uniformity in digital images.
22. **Template Matching:** The process of matching one or more templates with an image.
23. **Keypoint Detection:** The process of identifying marked locations in images.
24. **Scale-Invariant Feature Transform (SIFT):** An image processing technique that recognizes features resilient to changes in the size and shape of images.
25. **Scale Space:** A process of representing spatial sensitivity in an image.
26. **Feature Matching:** The process of identifying similar features in two or more images.
27. **Binary Image:** A digital image where each pixel represents only one of two possible colors.
28. **Morphological Operations:** Processes to process different properties of digital images.
29. **Contour Detection:** The process of identifying the boundaries of objects in images.
30. **Principal Component Analysis (PCA):** A data analysis technique used to represent relevant components of data.
31. **Histogram:** A type of liquid data analysis to represent the evolution of a specific phase.
32. **Patch:** Small parts of an image that can represent a feature.

33. **Morphological Transformation:** The process of processing images using morphological operations.
34. **Gaussian Blur:** An image processing type that blurs images and enhances them.
35. **Haar Cascade:** A type of boosted classifier used to recognize features such as eyes or faces.
36. **R-CNN (Region-based Convolutional Neural Network):** A technique using CNN to identify features.
37. **Non-Maximum Suppression (NMS):** An algorithm that removes features with the lowest accumulated score.
38. **Transfer Learning:** A learning process where knowledge from a previously trained model is used in a different context.
39. **Hough Transform:** The process of identifying shapes and objects in images.
40. **Gaussian Mixture Model (GMM):** A mixture of Gaussian distributions in data, used to divide data into different groups.
41. **SIFT Descriptor:** Data representation representing a specific image feature.
42. **Image Registration:** The process of identifying features in different images.
43. **Homography:** A transformation between two images in a combined form.
44. **Shape Recognition:** The process of identifying shapes and patterns in digital images.
45. **Depth Perception:** The ability to perceive depth information in images.
46. **Point Cloud:** Three-dimensional data structure representing dimensional spatial points.
47. **Region of Interest (ROI):** Specific areas of interest in images.
48. **Line Detection:** The process of identifying lines in images.
49. **Superpixel:** Process of segmentation in large and homogeneous images.
50. **Optical Flow:** The process of presenting technical changes in images.
51. **Connected Component Analysis (CCA) - Connected Component Analysis:** A process of identifying connected sets or groups.
52. **Haar-like Features - Haar-like Features:** A process of presenting features in images.
53. **Bag of Visual Words (BoVW) - Bag of Visual Words:** A process of categorizing features in images.
54. **Bilateral Filter - Bilateral Filter:** A process of blurring images.
55. **Laplacian Pyramid - Laplacian Pyramid:** A process of partial structural analysis of images.
56. **Texture Analysis - Texture Analysis:** A process of identifying textures in images.
57. **Optical Character Segmentation - Optical Character Segmentation:** A process of identifying characters in images.
58. **Blob Detection - Blob Detection:** A process of identifying undefined patterns in digital images.
59. **Sobel Operator - Sobel Operator:** A type of filter that highlights edges in images.
60. **Morphological Skeletonization - Morphological Skeletonization:** A process of creating the skeleton of images.
61. **Gaussian Noise - Gaussian Noise:** A process of adding undefined modifications to images.
62. **Feature Map - Feature Map:** A map of processed features in a CNN model.
63. **Histogram Backprojection - Histogram Backprojection:** A process that tells you which parts of an image represent which colors.
64. **Optical Flow Estimation - Optical Flow Estimation:** A process of measuring technical changes in images.
65. **Affine Transformation - Affine Transformation:** A process of structural transformation of images.
66. **Image Filtering - Image Filtering:** A process of removing noises in a digital image.
67. **Data Labeling - Data Labeling:** A process of describing data for training a model.
68. **Morphological Opening - Morphological Opening:** A structural process of images resulting from expected filtering.
69. **Region Proposals - Region Proposals:** A process of proposing regions to identify features.
70. **Lucas-Kanade Algorithm - Lucas-Kanade Algorithm:** An algorithm for estimating optical flow.
71. **Pyramid Blending - Pyramid Blending:** A process of blending images from different levels.
72. **Image Normalization - Image Normalization:** A process of adjusting intensities and contrasts in images.
73. **Scale-Invariant Detection - Scale-Invariant Detection:** A process of relocating features that remains invariant to changes in image scale.
74. **Zero Padding - Zero Padding:** A process of filling images with strips or empty spaces at their centers.
75. **Texture Synthesis - Texture Synthesis:** A process of representing or replicating texture for an image.
76. **Contour Tracing - Contour Tracing:** A process of identifying shapes in images.
77. **Image Morphing - Image Morphing:** A process of transforming one image into another.
78. **Image Registration - Image Registration:** A process of aligning two or more images into a unified coordinate system.

79. **Image Morphology** - Image Morphology: A process of structural analysis of images.
80. **Image Thresholding** - Image Thresholding: A process of converting an image into binary, marking only specified patterns.
81. **Image Segmentation** - Image Segmentation: A process of separating different entities in images.
82. **Image Sharpening** - Image Sharpening: A process of enhancing details in images.
83. **Image Morphological Operations** - Image Morphological Operations: A process of structurally processing images.
84. **Feature Extraction** - Feature Extraction: A process of obtaining features from data.
85. **Convolutional Layer** - Convolutional Layer: A layer used in CNN models.
86. **Data Preprocessing** - Data Preprocessing: A process of modifying data to enhance quality.
87. **Dilated Convolution** - Dilated Convolution: A type of convolution in which the convolutional layer is expanded.
88. **Depth Map** - Depth Map: A three-dimensional data structure representing the depth of objects in images.
89. **Disparity Map - Disparity Map** - A three-dimensional data structure representing differences in depth perception in stereo images.
90. **Image Restoration** - Image Restoration: A process of restoring digital images to their original state.
91. **Image Denoising** - Image Denoising: A process of removing noise from images.
92. **Active Contour Model** - Active Contour Model: A process of identifying shapes in images.
93. **Corner Detection** - Corner Detection: A process of identifying corners in images.
94. **Feature Point Detection** - Feature Point Detection: A process of identifying feature points in images.
95. **Image Segmentation Evaluation** - Image Segmentation Evaluation: A process of determining boundaries between various images.
96. **Scale Space Feature** - Scale Space Feature: A process of identifying features in images.
97. **Boundary Extraction** - Boundary Extraction: A process of obtaining outlines of shapes in images.
98. **Pixel-wise Segmentation** - Pixel-wise Segmentation: A process of associating each pixel with different entities.
99. **Semantic Segmentation** - Semantic Segmentation: A process of categorizing each pixel according to its corresponding entity.
100. **Image Super-resolution** - Image Super-resolution: A process of creating high-quality images.

## **31. Cryptocurrency**

1. **Cryptocurrency**: A digital or virtual currency that is secured using cryptography.
2. **Blockchain**: A network protocol for securely storing and distributing data.
3. **Decentralization**: The state of a system or network in the absence of a central control center.
4. **Wallet**: A software application or device used to securely store cryptocurrency assets.
5. **Mining**: The process of generating cryptocurrency by performing computational work on a blockchain network.
6. **Cryptography**: Mathematical techniques used for secure message transmission.
7. **Public Key**: A paired key used for encrypting messages for secure transmission and retrieval in cryptocurrency transactions.
8. **Private Key**: A key used for decrypting messages or digitally signing transactions.
9. **Distributed Ledger**: A duplicate of data that is distributed across a numerical network.
10. **Consensus Mechanism**: A process used in blockchain networks to establish the validity of all recorded data.
11. **Peer-to-Peer (P2P)**: A technique for sending and receiving messages and data directly between other users.
12. **Immutable**: Once information is added to a blockchain, it cannot be modified or removed.
13. **Hash Function**: A process of converting any specific data set into a fixed-length, unique representation in binary format.
14. **Fork**: The process of socially accepting changes in a blockchain.
15. **ICO (Initial Coin Offering)**: The process of democratically adopting a new cryptocurrency.
16. **Token**: A digital asset representing ownership rights in a network or ecosystem.
17. **Smart Contract**: A contract that automatically executes transactions using predefined written code and cryptocurrency.
18. **Altcoin**: A shorthand term used to describe various cryptocurrencies.
19. **Forking**: The process of embracing changes in a blockchain protocol.
20. **Exchange**: The process of exchanging digital currency with other distributors or users.
21. **Consensus Algorithm**: A technique used in blockchain networks to establish the validity of all recorded data.
22. **Digital Signature**: A unique code associated with digital data.



23. **Halving:** The process of halving the currency supply of a cryptocurrency.
24. **Immutable Ledger:** A referenced ledger where data or transactions cannot be altered.
25. **Hard Fork:** The process of completely splitting from an old protocol in a blockchain network.
26. **Soft Fork:** A change in a blockchain network protocol that is backward compatible with old nodes.
27. **Fork Resistance:** A system resistant to positive growth or changes in a blockchain network.
28. **ICO Token:** Initial funds or currency raised for a new cryptocurrency.
29. **Node:** A structured point of a blockchain network used for computational work.
30. **FOMO (Fear Of Missing Out):** A person's fear of missing out on a financial or economic opportunity.
31. **Double Spending:** The act of spending a cryptocurrency or digital currency twice.
32. **Proof of Work (PoW):** A process used in blockchain networks for data validation.
33. **Proof of Stake (PoS):** A protocol for securing a network and verifying cryptocurrency transactions.
34. **Fork Delta:** Acceptance of old blockchain data for producing a new cryptocurrency.
35. **Market Cap:** A measure of a cryptocurrency or company's market value.
36. **Pump and Dump:** A fraudulent scheme to artificially inflate and then quickly sell off a cryptocurrency's price.
37. **Atomic Swap:** A process of direct peer-to-peer trading between two different cryptocurrencies without an intermediary.
38. **Cryptocurrency Exchange:** A platform for buying, selling, and exchanging cryptocurrencies.
39. **Sharding:** A process of dividing blockchain data to improve network performance.
40. **Timestamp:** Information about an action or event at a specific time.
41. **Whitepaper:** A compiled document detailing the project or cryptocurrency's plans and construction.
42. **Whale:** A person or organization holding large quantities of cryptocurrency.
43. **DApp (Decentralized Application):** A local application used for cryptocurrency transactions on a blockchain.
44. **Block Height:** The position number of a specific block in a blockchain.
45. **Gas:** The amount of stored funds required for a blockchain transaction process.
46. **ERC-20 Token:** A standard type of cryptocurrency token designed on a blockchain.
47. **KYC (Know Your Customer):** A process used for private or financial services.
48. **Cold Storage:** Storing cryptocurrency securely in digital or physical mediums.
49. **Private Blockchain:** A blockchain controlled by a single organization or individual.
50. **Public Blockchain:** A blockchain based on a public network and available to everyone.
51. **Cryptocurrency Wallet:** A software or hardware device used to securely store cryptocurrency assets.
52. **Hard Wallet:** A physical device used to securely store cryptocurrency assets.
53. **Soft Wallet:** A software application used to securely store cryptocurrency assets.
54. **Exchange Wallet:** A part of a wallet used for cryptocurrency exchange.
55. **Cryptocurrency Mining:** The process of generating cryptocurrency by performing computational work on a blockchain network.
56. **Fiat Currency:** Government-issued and supported currency, such as the Dollar, Euro, or Rupee.
57. **Cryptocurrency Regulation:** The process by which governments control the use and transactions of cryptocurrencies.
58. **Initial Coin Offering (ICO):** The process of democratically adopting a new cryptocurrency.
59. **Cryptocurrency Regulation:** The process by which governments control the use and transactions of cryptocurrencies.
60. **Whitepaper:** A document prepared to provide information and details about a new cryptocurrency or project.

## **32.Edge Computing**

1. **Edge Computing:** The process of using computing resources at the network edge to store, process, and take critical actions on data.
2. **Edge Device:** Any device used at the edge to store, process, and transmit collected data.
3. **Edge Server:** A server located at the edge of a network for processing and distributing stored data.
4. **Latency:** The time taken to process data within a necessary timeframe.
5. **Edge Analytics:** The process of analyzing data using computing at the edge for storing and processing collected data.
6. **IoT (Internet of Things):** The science and practice of connecting most digital devices via the internet.
7. **Edge Gateway:** A device used at the edge to communicate with other networks or devices in a network.
8. **Edge Intelligence:** The ability to make local decisions using data stored at the edge.
9. **Edge Network:** Resources at the edge for data processing and storage.
10. **Fog Computing:** A type of computing where data processing occurs at the edge, between edge and centralized data centers.
11. **Edge Computing Platform:** A software platform used for processing, analyzing, and storing data at the edge.
12. **Micro Data Center:** Small-scale data centers used for edge data processing.
13. **Edge Computing Architecture:** The design and structure of edge computing systems.
14. **Edge Computing Infrastructure:** Hardware and software architecture for computing at the edge.
15. **Edge Computing Security:** Measures for data security and privacy at the edge.
16. **Real-Time Processing:** The capability to process data immediately.
17. **Edge Computing Benefits:** Advantages of using edge computing, such as reduced latency, decreased network traffic, and data security.
18. **Edge Computing Challenges:** Difficulties in implementing edge computing, such as securing and storing collected data.
19. **Edge Computing Use Cases:** Examples of using edge computing, such as local data processing for high-latency applications.
20. **Edge Computing Solutions:** Software and hardware solutions for edge computing.
21. **Edge Computing Framework:** Technical frameworks and tools used for edge computing.
22. **Edge Computing Deployment:** Deployment of devices and software for edge computing.
23. **Edge Computing Scalability:** The ability to scale edge computing resources quickly.
24. **Edge Computing Integration:** Integration of edge computing with other organizational systems.
25. **Edge Computing Performance:** The capability of edge computing resources to perform efficiently.
26. **Edge Computing Management:** The ability to manage edge computing resources.
27. **Edge Computing Standardization:** The process of standardizing edge computing.
28. **Edge Computing Optimization:** The process of improving performance in edge computing.
29. **Edge Computing Security:** The capability to secure data at the edge.
30. **Edge Computing Privacy:** The ability to maintain privacy of data at the edge.
31. **Edge Computing Connectivity:** The capability for edge computing resources to connect.
32. **Edge Computing Cost:** The cost associated with edge computing.
33. **Edge Computing Reliability:** The reliability of edge computing resources.
34. **Edge Computing Flexibility:** The flexibility of edge computing resources.
35. **Edge Computing Robustness:** The robustness of edge computing resources.
36. **Edge Computing Redundancy:** The redundancy of edge computing resources.
37. **Edge Computing Data Governance:** The ability to govern data usage at the edge.
38. **Edge Computing Interoperability:** The interoperability of edge computing resources.
39. **Edge Computing Load Balancing:** The capability to balance loads across edge computing resources.
40. **Edge Computing Predictive Analytics:** The capability to predict future actions based on data at the edge.
41. **Edge Computing Containerization:** The process of storing edge computing resources in containers.
42. **Edge Computing Orchestration:** The management of basic framework and processes in edge computing.

43. **Edge Computing Edge-to-Cloud Continuum:** The continuity of computing from the edge to the cloud.
44. **Edge Computing Artificial Intelligence:** The capability of artificial intelligence using edge computing resources.
45. **Edge Computing Machine Learning:** The capability of machine learning using edge computing resources.
46. **Edge Computing Blockchain:** The capability of blockchain using edge computing resources.
47. **Edge Computing 5G Integration:** The integration of 5G communication protocols with edge computing resources.
48. **Edge Computing Edge Intelligence:** The capability of intelligence using edge computing resources.
49. **Edge Computing Autonomous Systems:** The capability of autonomous systems using edge computing resources.
50. **Edge Computing Digital Twins:** The capability of digital twins using edge computing resources.
51. **Edge Computing Virtualization:** The ability to present edge computing resources in virtualized form.
52. **Edge Computing Data Streaming:** The ability to stream data using edge computing resources.
53. **Edge Computing Data Processing:** The ability to process data using edge computing resources.
54. **Edge Computing Data Storage:** The ability to store data using edge computing resources.
55. **Edge Computing Data Visualization:** The ability to visualize data using edge computing resources.
56. **Edge Computing Data Sharing:** The ability to share data using edge computing resources.
57. **Edge Computing Edge AI:** The ability to implement edge AI using edge computing resources.
58. **Edge Computing Edge Machine Learning:** The ability to implement edge machine learning using edge computing resources.
59. **Edge Computing Edge Security:** The ability to implement edge security using edge computing resources.
60. **Edge Computing Edge Privacy:** The ability to implement edge privacy using edge computing resources.
61. **Edge Computing Decentralization:** The ability to decentralize computing resources at the edge.
62. **Edge Computing Dynamic Resource Allocation:** The ability to allocate resources dynamically at the edge based on urgency.
63. **Edge Computing Network Slicing:** The ability to slice network resources for edge computing.
64. **Edge Computing Low Power Consumption:** The ability to consume low power for edge computing resources.
65. **Edge Computing Remote Monitoring:** The ability to monitor edge computing resources remotely.
66. **Edge Computing Cloud Integration:** The ability to integrate edge computing resources with cloud resources.
67. **Edge Computing Real-Time Insights:** The ability to provide real-time insights using edge computing resources.
68. **Edge Computing Multi-Tenancy:** The ability to support multi-tenancy for edge computing resources.
69. **Edge Computing Fog Networking:** The ability to integrate edge computing resources with fog networking.
70. **Edge Computing Peer-to-Peer Communication:** The ability to enable peer-to-peer communication among edge computing resources.
71. **Edge Computing Sensor Fusion:** The ability to fuse sensor data using edge computing resources.
72. **Edge Computing Predictive Maintenance:** The ability to perform predictive maintenance using edge computing resources.
73. **Edge Computing Collaborative Learning:** The ability to support collaborative learning using edge computing resources.
74. **Edge Computing Edge-to-Edge Communication:** The ability to enable edge-to-edge communication among edge computing resources.
75. **Edge Computing Distributed Machine Learning:** The ability to perform distributed machine learning using edge computing resources.
76. **Edge Computing Automated Data Processing:** The ability to automate data processing using edge computing resources.
77. **Edge Computing Edge-to-Cloud Collaboration:** The ability to collaborate between edge and cloud using edge computing resources.
78. **Edge Computing Mobile Edge Computing:** The ability to perform mobile edge computing using edge computing resources.
79. **Edge Computing Autonomous Decision Making:** The ability to make autonomous decisions using edge computing resources.
80. **Edge Computing Fault Tolerance:** The ability to tolerate faults using edge computing resources.

## 33. Research

1. **Research:** A detailed and continuous study or exploration on a specific subject.
2. **Hypothesis:** An assumption that is investigated to be validated through research.
3. **Data:** Facts and information gathered from internal and external sources.
4. **Classification:** Dividing or categorizing data into different groups.
5. **Data Analysis:** Identifying patterns and elements by analyzing data.
6. **Data Presentation:** The process of presenting data in a scientific and mathematical manner.
7. **Research Presentation:** The systematic method of presenting the results of research to people.
8. **Data Security:** Actions taken to protect the security and privacy of data.
9. **Software:** Computer programs and associated data.
10. **Mathematical Model:** A model presented in mathematical form to solve problems.
11. **Algorithm:** A set of defined steps for solving a problem.
12. **Laboratory:** A place for scientific research where experiments and studies can be conducted.
13. **Software Expression:** Unique expression with software design.
14. **Research Institute:** An organization providing expertise for research and development.
15. **Testing:** Checking the quality or functionality of software or hardware.
16. **Experiment:** A research activity conducted regularly.
17. **Development:** The creation and improvement of new technology, software, or technology.
18. **Research Ethics:** Adhering to ethical values and rules in research.
19. **Parameter:** A variable in a model or dataset that can be changed during testing.
20. **Internal Validation:** Checking the validity of research methods and results.
21. **External Validation:** Checking the validity of one's research with other research or data.
22. **Sample:** A small portion that can represent the entire study.
23. **Study:** Studying deeply on a specific subject.
24. **Analysis:** Examining and extracting results from research or data.
25. **Collection:** Gathering or compiling information or data.
26. **Related Research:** Information related to previously conducted research.
27. **Lab Experiment:** Testing conducted in a laboratory for scientific evidence.
28. **Field Study:** Expertly studied in obscure locations.
29. **Research Protocol:** Guidelines for a research project.
30. **Session:** A collaborative session with an inspector or members where the progress of research is discussed.
31. **Analysis:** Process of analyzing various facts and figures or understanding them.
32. **Observation:** Formally observing and researching.
33. **Baseline:** The initial state of research which is appropriate for later comparison.
34. **Practice:** Regularly performing or practicing a procedure.
35. **Approval:** The process or status of approving a research project.
36. **Literature:** A field filled with related articles, books, and information.
37. **Instrumentation:** Instruments or tools used in research.
38. **System:** An organized and structured set that works together to complete a task.
39. **Integration:** Combining various components into a complete and organized system.
40. **Modeling:** The process of symbolically representing objects or processes.
41. **Empirical:** Based on evidence or experience.
42. **Correlation:** Relationship or association between two or more correlated facts.
43. **Compatibility:** Ability of two or more systems or software to work together.
44. **Solution:** The resolution or remedy to a problem.



45. **Review:** The process of reviewing a process, project, or research.
46. **Estimation:** Estimating or assessing for a solution to a problem.
47. **Management:** Planning, organizing, and executing research projects.
48. **Approval Letter:** A letter received upon approval of a project.
49. **Survey:** The process of gathering information with the public or a sample.
50. **Study Design:** Guidelines or format for research.
51. **Predict:** The process of making forecasts or estimations about the future.
52. **Reliability:** The stability and credibility of measured information.
53. **Inference:** The process of drawing conclusions based on facts or evidence.
54. **Replacement:** The process of substituting one system, tool, or process with another.
55. **Basic Research:** Research conducted to acquire new knowledge.
56. **Health Sciences:** Research related to medicine and health.
57. **Statistics:** Mathematical techniques for analyzing, collecting, and interpreting data.
58. **Physics:** The study of matter, energy, and their interactions.
59. **Module:** An independent component that can be integrated into a complete system or software.
60. **Biomedical:** A related field of biology and engineering that includes both medical and technical aspects.
61. **Spiritual:** Related to research on the soul and spirituality.
62. **Computational Mathematics:** The field of mathematical research that involves the use of computers.
63. **Interface:** A medium or interface for communication between two or more systems.
64. **Financial Research:** Study of economic markets, investments, and financial sectors.
65. **Bio-robotics:** A research field that deals with the relationship between living organisms and robotics.
66. **Introductory Research:** Preliminary and general study on a subject.
67. **Example:** An element used to illustrate a principle or process.
68. **Field-Based Research:** The process of conducting research in actual locations and settings.
69. **Formal:** Distinguished from local and informal studies, a structured research process.
70. **Modulation:** The process of creating or altering a reverse message, such as in radio or digital signals.
71. **Adaptability:** The ability to support and adapt to changes.
72. **Exhibition:** An organized event arranged to display and share the results of research.
73. **Health Research:** The field of study involving human health and diseases.
74. **Sampling:** The process of selecting a small portion for a complete study.
75. **Virtual Commerce:** The study of commercial activities based on online and digital platforms.
76. **Structural Research:** The study of structural aspects of objects and processes.
77. **Computer Vision:** The ability of computers to understand and process images and videos.
78. **Practice:** Exercises and drills performed by students or professionals.
79. **Autonomy:** The ability or freedom to act independently.
80. **Project Management:** The art and science of organizing research projects systematically.
81. **Awareness:** Understanding of truth or information about a subject, situation, or performance.
82. **Acceptance:** The process of approving or endorsing an idea or proposal.
83. **Pattern Recognition:** The ability to identify rules and patterns in data.
84. **Human Geography:** The study of human societies, cultures, and economic systems.
85. **Support:** Internal and external resources used to support an idea, concept, or process.
86. **Imitation:** The replication of others' actions, thoughts, or behaviors.
87. **Innovation:** Creating and implementing new and advanced ideas, methods, or products.
88. **Probabilities:** The measure of the likelihood of an event happening.
89. **Timeline:** A schedule for planning and executing a project.
90. **Probability:** The measure, figures, or estimate of the likelihood of an event occurring.

91. **Research Review:** The process of reviewing and evaluating an research process or project.
92. **Retrospective Research:** The process of studying an event, process, or situation retrospectively.
93. **Prosperity:** The state of excellence and wealth, especially from an economic perspective.
94. **Security:** The study of security levels and protection of data, information, or resources.
95. **Specialization:** The attainment of expertise or mastery in a specific field.
96. **Concrete:** Real and unprecedented, formally certified facts or figures.
97. **Negative:** Absence or negative results in the outcomes of a study or experiment.
98. **Institutional Research:** The study of research activities within an institution or organization.
99. **Educational Research:** The field of study involving education and educational processes.
100. **Dedication:** Support and commitment in a research process or project.

## **34. Innovation**

1. **Innovation:** Creating new and advanced ideas or technological products.
2. **Disruptive Technology:** A new technology that completely changes traditional technological processes or products.
3. **Blockchain:** A technical system for securely storing data.
4. **Artificial Intelligence:** Technology that provides machines with the ability to think and make decisions.
5. **Augmented Reality:** Technology that combines reality with economic and technical information.
6. **Cloud Computing:** Storage and access of data and services via the internet.
7. **Internet of Things:** The ability to connect objects to the internet, enabling data sharing and control.
8. **Machine Learning:** Technology that provides machines with the ability to learn and adapt.
9. **Cybersecurity:** Technical systems and processes to keep networks and computer systems secure.
10. **Big Data:** Technical methods for analyzing vast and complex datasets.
11. **Virtual Reality:** Technology that immerses a person in another environment.
12. **Open Source:** Source code that anyone can modify and use.
13. **Algorithm:** A creator of specific steps to solve a problem.
14. **DevOps:** Technical and organizational approach that integrates development and operations.
15. **API:** Application Programming Interface, used to establish communication between two software applications.
16. **Firmware:** A stable software layer between hardware and software.
17. **User Interface:** Technical system for facilitating communication between users and software.
18. **Encryption:** Technique for securely storing data.
19. **SaaS:** Software services accessible via the internet.
20. **Agile:** A methodology for dividing development work into short periods and considering administrative feedback.
21. **Deep Learning:** A form of machine learning with the ability to learn from more contexts.
22. **Scalability:** The ability of a system or software to grow or shrink.
23. **Responsive Design:** Website or application that displays correctly on different devices.
24. **Metadata:** Data description that helps understand its structure and summary.
25. **Version Control:** Process of managing code and other design versions.
26. **Hadoop:** An open-source software platform for processing large datasets.
27. **Microservices:** Technique to divide a software application into small, independent services.
28. **Compiler:** Software tool to convert source code into machine code.
29. **Latency:** Time to maintain the status of any process in a system.
30. **Quantum Computing:** Technique for computation using quantum mechanics.
31. **Data Mining:** Process of discovering elements and patterns from large datasets.
32. **Neural Network:** A technical model that mimics the source of human intelligence.
33. **IoT Security:** Security for objects connected to the internet.
34. **Quantum Encryption:** Encryption technique with a high level of security.

35. **Genetic Algorithm:** A technical algorithm to improve ideas derived from genetic processes.
36. **API Gateway:** Technical means to improve the behavior of a stored API from one service or system to another.
37. **Containerization:** Technique for organizing and transporting software.
38. **Edge Computing:** Technique to bring data processing closer to its point of origin.
39. **Fintech:** Field using innovative technologies in financial services.
40. **Dark Web:** Part of the internet where activities are hidden due to deep security and anonymity.
41. **Biometrics:** Technique for identification using physical characteristics, such as fingerprinting.
42. **Microcontroller:** An independent computer system with program and hardware combined.
43. **Robotic Process Automation:** Process of using robots to perform tasks independently.
44. **Virtual Machine:** Software emulation behaving like another computer system.
45. **Natural Language Processing:** The ability of computers to understand and process human language.
46. **API Integration:** Process of combining APIs from two or more software applications.
47. **DevSecOps:** Incorporating security into software development and operation.
48. **Gamification:** Use of game-like elements for unjust and motivational transfer.
49. **User Experience:** Overall evaluation of the experience a user has when using a product or service.
50. **Algorithmic Trading:** Process of financial trading using automated techniques.
51. **Container Orchestration:** The organizational process of managing containers to present them at the right place and time.
52. **Edge AI:** Using computation and intelligence on local devices rather than relying on the internet.
53. **Blockchain Interoperability:** The ability to share data and information between different blockchain networks.
54. **Chatbot:** Software programs designed to interact structuredly and autonomously.
55. **Decentralized Finance:** The process of providing financial services using digital technology, excluding banks and other financial institutions.
56. **Graph Database:** A database that stores data in a graphical structure.
57. **DevRel:** Developer Relations, responsible for engaging with developers to promote a company or product's growing presence.
58. **Zero-Day Exploit:** The process of exploiting software security vulnerabilities negatively until the software developer fixes it.
59. **Data Lake:** Data storage process that collects various types of data from various sources uniformly.
60. **Quantum Supremacy:** The state of a quantum computer's ability to perform high-level computational tasks.
61. **Predictive Analytics:** The process of forecasting using data and statistics.
62. **ARKit:** Apple's technical toolkit allowing developers to incorporate augmented reality into applications.
63. **Continuous Integration:** Part of the software development process where code from various sources is brought together and integrated.
64. **Distributed Ledger:** A technological network for sharing collected and securely stored data.
65. **Emotion AI:** Technology that provides machines with the ability to understand and respond to human emotions.
66. **Serverless Computing:** A technical process where there is no need for a server for computation.
67. **Deepfake:** The process of creating images and videos of unknown individuals using digital technology.
68. **Neuromorphic Computing:** Technology attempting to mimic the structure of the human brain negatively.
69. **Data Warehousing:** The process of storing data from various sources into a consolidated database.
70. **API Rate Limiting:** Technique to limit the number of API requests within a specified timeframe.
71. **Digital Twin:** A digital model of a real or business system.
72. **Blockchain Wallet:** A digital wallet for storing Bitcoin and other cryptocurrencies.
73. **Smart Contracts:** Self-executing legal documents working on blockchain.
74. **Neural Processor Unit:** Processing units specially designed for neural networks.
75. **Robotic Vision:** The ability of robots to see and understand the world.
76. **Edge Analytics:** The process of analyzing data at the point of generation.
77. **Augmented Reality:** Technique of providing an enhanced perspective by combining reality with digital content.
78. **Cybersecurity:** Technical measures to keep networks, systems, and data secure.
79. **Robotic Exoskeleton:** A robotic device providing assistance and strength to an individual.

80. **Blockchain Scalability:** The process of expanding the capacity of a blockchain network.
81. **Machine Learning Model:** A technical model capable of making decisions by learning from data.
82. **Geospatial Technology:** Process of using technologies related to geographical locations.
83. **API Documentation:** Description of how to use an API.
84. **IoT Connectivity:** How various devices and sensors are connected to the internet.
85. **Digital Marketing Analytics:** Process of analyzing how online marketing is performing.
86. **Agile Development:** Methodology of dividing development work into short cycles with adaptability and review capabilities.
87. **Fog Computing:** Technique of moving data processing to the edge of the network or devices.
88. **Autonomous Vehicles:** Vehicles capable of self-driving without human intervention.
89. **DevOps Pipeline:** Automated and organized setup for the process of software development and operation.
90. **Open Source Software:** Software whose source code is publicly available and can be freely modified.
91. **ARCore:** Google's technical toolkit enabling developers to incorporate augmented reality into applications.
92. **Bi-directional Charging:** Ability to charge electric vehicles and retrieve power.
93. **Headless CMS:** Content management system for displaying data on various devices and locations.
94. **Quantum Computing:** Process of computation using quantum bits.
95. **Data Governance:** Process of securely and systematically managing data.
96. **Blockchain Smart Contracts:** Self-executing legal documents based on blockchain that can independently perform actions.
97. **Cyber-Physical Systems:** Integration of digital and physical systems working across various technical domains.
98. **Conversational User Interface:** Designed interface for users to interact with self-narration or self-testimony.
99. **3D Printing:** Technology of creating objects in three dimensions using technical means.
100. **Zero Trust Security:** Practice of being cautious in granting permission to data related to all users and their devices.

## **35. Discovery**

1. **Exploration:** The search and study of unknown places.
2. **Revelation:** Suddenly discovering or becoming evident.
3. **Uncover:** To reveal something hidden.
4. **Innovation:** The creation of new and improved discoveries or ideas.
5. **Survey:** A system for gathering information in a specific area.
6. **Exploration:** The search and study of unknown places.
7. **Detection:** The process of identifying hidden or concealed sources.
8. **Finding:** Discovering something new or unknown.
9. **Exploration:** Studying new or unknown locations.
10. **Invention:** The process of creating something new or unknown.
11. **Recognition:** Identifying something correctly.
12. **Insight:** Deep understanding or knowledge.
13. **Observation:** Carefully seeing and learning.
14. **Examination:** Conducting a thorough inspection or study.
15. **Inquiry:** Obtaining information through questions and study.
16. **Inquisition:** Investigating in a disputatious manner.
17. **Discovery:** Finding something new or previously unknown.
18. **Investigation:** Conducting a rigorous examination or research.
19. **Exploration:** Searching for new places or subjects.
20. **Perception:** The ability to see invisible or subtle things.
21. **Reconnaissance:** A detailed investigation of a location or ideas.
22. **Identification:** Recognizing or performing the act of recognizing something.



23. **Exposition:** Clearly presenting thoughts or necessary information.
24. **Expedition:** Journeying to land, sea, or space for a specific purpose.
25. **Perusal:** Carefully reading or studying.
26. **Interpretation:** Understanding the correct meaning of something.
27. **Unveiling:** Revealing something hidden or unknown.
28. **Perception:** The ability to understand thoughts and ideals.
29. **Recognition:** Acknowledging and accepting someone or something.
30. **Disclosure:** Making private or unknown matters public.
31. **Search:** Investigating or looking for something.
32. **Ascertainment:** Confirming or verifying.
33. **Innovate:** Implementing new and improved ideas.
34. **Excavation:** Discovering or extracting something by digging the ground.
35. **Pioneer:** A person guiding in a new field.
36. **Quest:** Striving to obtain something with diligence.
37. **Verification:** The process of checking and confirming.
38. **Surveillance:** The process of vigilance or monitoring.
39. **Identification:** The process of recognizing something.
40. **Inventiveness:** The ability to generate new and innovative ideas.
41. **Locate:** Determining the position of something.
42. **Recognition:** The ability to recognize something.
43. **Scrutiny:** Careful examination or inspection.
44. **Inquisitiveness:** The inclination towards curiosity and study.
45. **Observance:** Carefully following or taking care of something.
46. **Unearthing:** The process of extracting something from the ground.
47. **Perception:** Knowing something especially keenly.
48. **Exploration:** Searching for new places or subjects.
49. **Determining:** Deciding something permanently.
50. **Discernment:** The ability to understand or judge things clearly.
51. **Unveil:** To reveal something hidden or unknown.
52. **Identification:** The process of recognizing something.
53. **Trailblazing:** The act of providing guidance in a new field.
54. **Search:** Looking for or investigating something new or unknown.
55. **Innovative:** Skilled in creating new and improved ideas.
56. **Revelation:** Suddenly discovering or becoming evident.
57. **Exploration:** Studying or searching for new or unknown places.
58. **Detection:** The process of identifying hidden or concealed sources.
59. **Discovery:** Finding something new or previously unknown.
60. **Inquiry:** Obtaining information through questions and study.
61. **Realization:** Understanding or becoming aware of something clearly.
62. **Unraveling:** The act of making invisible or mysterious things clear.
63. **Exposure:** The process of presenting something openly.
64. **Enlightenment:** Attaining knowledge or understanding well.
65. **Intuition:** The ability to understand something without reasoning.
66. **Questing:** The process of obtaining knowledge or experience.
67. **Perception:** The ability to see invisible or subtle things.
68. **Revelation:** Suddenly discovering or becoming evident.

69. **Discovery:** Finding something new or previously unknown.
70. **Inquisitive:** Having a curiosity and inclination towards study.
71. **Revelation:** The emergence of unknown or confidential matters.
72. **Observation:** Carefully seeing and learning.
73. **Concealment:** The act of hiding something.
74. **Detection:** The process of finding or identifying something.
75. **Understanding:** The ability to comprehend or grasp something.
76. **Revelation:** The sudden experience of divine knowledge.
77. **Cognition:** The capacity to acquire and comprehend information.
78. **Detection:** The act of searching for or identifying something.
79. **Insight:** Deep understanding or knowledge.
80. **Perception:** The ability to perceive unseen or subtle things.
81. **Understanding:** The capability to comprehend or grasp something.
82. **Observation:** Carefully seeing and learning.
83. **Insight:** Internal knowledge or understanding.
84. **Inquiry:** Obtaining information through questioning.
85. **Revelation:** The sudden emergence of profound or emotional matters.
86. **Unearthing:** The process of extracting something from the ground.
87. **Recognition:** Acknowledgment and acceptance of someone or something.
88. **Disclosure:** Making private or unknown matters public.
89. **Verification:** The process of confirming or validating.
90. **Unveiling:** Revealing something hidden or unknown.
91. **Ascertainment:** Confirming or verifying.
92. **Pioneering:** The act of guiding in a new field.
93. **Identification:** The process of recognizing something.
94. **Inquisition:** Investigating in a disputatious manner.
95. **Exposition:** Clearly presenting thoughts or necessary information.
96. **Reconnaissance:** A detailed investigation of a location or ideas.
97. **Perusal:** Carefully reading or studying.
98. **Interpretation:** Understanding the correct meaning of something.
99. **Discovery:** Finding something new or previously unknown.
100. **Exploration:** Searching for new places or subjects.

# What is RID Organization (RID संस्था क्या है)?

- **RID Organization** यानि **Research, Innovation and Discovery Organization** एक संस्था हैं जो TWF (TWKSAA WELFARE FOUNDATION) NGO द्वारा RUN किया जाता है। जिसका मुख्य उद्देश्य हैं आने वाले समय में सबसे पहले **NEW (RID, PMS & TLR)** की खोज, प्रकाशन एवं उपयोग भारत की इस पावन धरती से भारतीय संस्कृति, सभ्यता एवं भाषा में ही हो।
- देश, समाज, एवं लोगों की समस्याओं का समाधान **NEW (RID, PMS & TLR)** के माध्यम से किया जाये इसके लिए ही इस **RID Organization** की स्थापना 30.09.2023 किया गया है। जो TWF द्वारा संचालित किया जाता है।
- TWF (TWKSAA WELFARE FOUNDATION) NGO की स्थापना 26-10-2020 में बिहार की पावन धरती सासाराम में Er. RAJESH PRASAD एवं Er. SUNIL KUMAR द्वारा किया गया था जो की भारत सरकार द्वारा मान्यता प्राप्त संस्था हैं।
- Research, Innovation & Discovery में रुचि रखने वाले आप सभी विधार्थियों, शिक्षकों एवं बुद्धिजिवियों से मैं आवाहन करता हूँ की आप सभी इस **RID संस्था** से जुड़ें एवं अपने बुद्धि, विवेक एवं प्रतिभा से दुनियां को कुछ नई **(RID, PMS & TLR)** की खोजकर, बनाकर एवं अपनाकर लोगों की समस्याओं का समाधान करें।

## MISSION, VISSION & MOTIVE OF “RID ORGANIZATION”

मिशन	हर एक ONE भारत के संग
विजन	TALENT WORLD KA SHRESHTM AB AAYEGA भारत में और भारत का TALENT भारत में
मकसद	NEW (RID, PMS, TLR)

## MOTIVE OF RID ORGANIZATION NEW (RID, PMS, TLR)

### NEW (RID)

R	I	D
Research	Innovation	Discovery

### NEW (TLR)

T	L	R
Technology, Theory, Technique	Law	Rule

### NEW (PMS)

P	M	S
Product, Project, Production	Machine	Service



**Er. Rajesh Prasad**  
Founder:

RID रीड संस्था की मिशन, विजन एवं मकसद को सार्थक हमें बनाना हैं।  
भारत के वर्चस्व को हर कोने में फैलना हैं।  
कर के नया कार्य एक बदलाव समाज में लाना हैं।  
रीड संस्था की कार्य-सिद्धांतों से ही, हमें अपनी पहचान बनाना हैं।