




Service Type		Description	 AWS	 Azure	 Google Cloud
STORAGE	Object storage	For storing any files you regularly use	Simple Storage Service (S3)	Blob Storage	Cloud Storage Buckets
	Archive storage	Low cost (but slower) storage for rarely used files	S3 Glacier Instant, Glacier Flexible, Glacier	Blob Cool/Cold/Archive tiers	Cloud Storage Nearline, Coldline, Archive
	File storage	For storing files needing hierarchical organization	Elastic File System (EFS), FSx	Avers vFXT, Files	Filestore
	Block storage	For storing groups of related files	Elastic Block Storage	Disk Storage	Persistent Disk
	Hybrid storage	Move files between on-prem & cloud	Storage Gateway	StorSimple, Migrate	Storage Transfer Service
	Edge/offline storage	Move offline data to the cloud	Snowball	Data Box	Transfer Appliance
	Backup	Prevent data loss	Backup	Backup	Backup and Disaster Recovery
DATABASE	Relational DB management	Standard SQL DB (PostgreSQL, MySQL, SQL Server, etc.)	Relational Database Service (RDS), Aurora	SQL, SQL Database	Cloud SQL, Cloud Spanner
	NoSQL: Key-value	Redis-like DBs for semi-structured data	DynamoDB	Cosmos DB, Table storage	Cloud BigTable, Firestore
	NoSQL: Document	MongoDB/CouchDB-like DBs for hierarchical JSON data	DocumentDB	Cosmos DB	Firestore, Firebase Realtime Database
	NoSQL: Column store	Cassandra/HBase-like DBs for structured hierarchical data	Keyspaces	Cosmos DB	Cloud BigTable
	NoSQL: Graph	Neo4j-like DBs for connected data	Neptune	N/A	N/A
	Caching	Redis/Memcached-like memory for calculation	ElastiCache	Cache for Redis, HPC Cache	Memorystore
	Time Series DB	DB tuned for time series data	Timestream	Time Series Insights	Cloud BigTable
	Blockchain	Dogecoin, etc.	Managed Blockchain	Blockchain Service, Blockchain Workbench, Confidential Ledger	N/A
COMPUTE	Virtual machines	Software-emulated computers	Elastic Compute Cloud (EC2)	Virtual Machines	Compute Engine
	Spot virtual machines	Cost-effective VMs	EC2 Spot Instances	Spot Virtual Machines	Spot VMs
	Autoscaling	Autoscaling Adjust resources to match demand	EC2 Auto Scaling	Virtual Machine Scale Sets	Instance Groups
	Functions as a service (Serverless computing)	Execute code chunks without worrying about infrastructure	Lambda	Functions	Cloud Functions
	Platform as a service	Manage applications without worrying about infrastructure	Elastic Beanstalk, Red Hat OpenShift on AWS	App Service, Cloud Services, Spring Cloud, Red Hat OpenShift	App Engine
	Batch scheduling	Run code at specified times	Run code at specified times Batch	Batch	Batch, Cloud Scheduler
	Isolated servers	VM on your own machine, for high security	Dedicated Instances	Dedicated Host	Sole-tenant Nodes, Shielded VMs
	On-premise/Ed	Cloud-services on your own hardware	Outposts, Snow	Modular	N/A
	On-premise/Edge devices	Cloud-services on your own hardware	Outposts, Snow Family	Modular Datacenter, Stack Hub, Stack HCI, Stack Edge	N/A
	Quantum computing	Determine if cat is alive or dead	Braket	Quantum	N/A
ANALYTICS	Data Warehouse	Data Warehouse Centralized platform for all your data	RedShift	Synapse Analytics	BigQuery
	Big data platform	Run Spark, Hadoop, Hive, Presto, etc.	EMR	Data Explorer, HDInsight	Dataproc
	Business analytics	Dashboards and visualization	QuickSight, FinSpace	Power BI Embedded, Graph Data Connect	Looker, Looker Studio, Vertex AI Workbench
	Real-time analytics	Streaming data analytics	Kinesis Data Analytics, Kinesis Data Streams, Managed Streaming for Kafka	Stream Analytics, Event Hubs	Dataflow, Pub/Sub, Datastream
	Extract-Transform-Load (ETL)	Preprocessing and importing data	Glue, Kinesis Data Firehose, SageMaker Data Wrangler	Data Factory	Data Fusion, Dataflow, Dataproc, Dataprep by Trifacta
	Workflow orchestration	Build data and model pipelines	Data Pipeline, Managed Workflows for Airflow	Data Factory	Cloud Composer
	Data lake creation	Import data into a lake	Lake Formation	Data Share	Cloud Storage
	Managed search	Enterprise search	CloudSearch, OpenSearch Service, Kendra	Cognitive Search	Cloud Search
	Data Catalog	Metadata management	Glue Data Catalog	Purview, Data Explorer	Data Catalog
ML & AI	Machine Learning	Train, fit, validate, and deploy ML models	SageMaker	Machine Learning	Vertex AI
	Jupyter notebooks	Write data analyses and reports	SageMaker Notebooks	Notebooks	Colab
	Data science/machine learning VM	Virtual machines tailored to data work	Deep Learning AMIs	Data Science Virtual Machines	Deep Learning VM
	AutoML	Automatically build ML models	SageMaker	Machine Learning Studio, Automated ML	Vertex AI Workbench
	Natural language Processing AI	Analyze text data	Comprehend	Text Analytics	Natural Language AI
	Recommendation AI	Product recommendation engine	Personalize	Personalizer	Recommendations AI
	Document capture	Extract text from printed text & handwriting	Textract	Form Recognizer	Document AI
	Computer vision	Image classification, object detection & other AI with image data	Rekognition, Panorama, Lookout for Vision	Cognitive Services for Vision	Vision AI
	Speech to text	Speech transcription	Transcribe	Cognitive Services for Speech to Text, Cognitive Services for Speaker Recognition	Speech-to-Text
	Text to speech	Text to speech Speech generation	Polly	Cognitive Services for Text to Speech	Text-to-Speech
	Translation AI	Convert text between human languages	Translate	Cognitive Services for Speech Translation, Translator	Translation AI
	Video Intelligence	Video indexing and asset search	Rekognition Video	Video Indexer	Video Intelligence API
	AI agents	Virtual assistants and chatbots	Lex, Alexa Skills kit	Bot Service, Cognitive Services for Conversational Language Understanding	Dialogflow
	Human-in-the-loop	Human-based quality control for AI	Augmented AI (A2I)	Cognitive Services Content Monitor	NA
NETWORKING & CONTENT DELIVERY	Content delivery network	Serve content to users	CloudFront	Content Delivery Network	Cloud CDN and Media CDN
	Application Programming Interface (API) management	Build and deploy APIs	API Gateway	API Apps, API Management	Apigee API Management
	Domain Name System (DNS)	Route end users to applications	Route 53	DNS	Cloud DNS
	Load balancing	Distribute work evenly across machines	Elastic Load Balancing (ELB)	Application Gateway, Load Balancers, Traffic Manager	Cloud Load Balancing
CONTAINERS	Managed containers	Run and deploy containers	Elastic Kubernetes Service, Elastic Container Service	Kubernetes Service, Container Apps	Kubernetes Engine
	Container registration	Manage container images	Elastic Container Registry	Container Registry	Artifact Registry
MANAGEMENT & SECURITY, IDENTITY	Access management	User permissions and authentication	Identity and Access Management (IAM)	Active Directory	Cloud Identity
	Activity tracking	Track user activity	CloudTrail	Monitor Activity Log	Access Transparency and Access Approval
	Security	Protect your data, network and applications	Security Hub	Security	Security Command Center
	Monitoring	Monitor network traffic and detect anomalies	CloudWatch, Transit Gateway Network Manager	Monitor, Anomaly Detector	Operations, Network Intelligence Center
	Automation	Preform processes automatically	OpsWorks	Automation	Compute Engine Management
	Cost optimization	Reduce your cloud spend	Cost Optimization	Cost Management	Recommender