Managed	AWS Component	Description
		SECURITY
No	IAM	 Controls individual AND group access to a resource Supports MFA
No	Amazon S3	 Stores unstructured data Stores files as object Max file size: 5TB
Yes	AWS Transfer Family	 Transfer files to S3 AND Amazon EFS Protocols available (SSH, SFTP, FTPS, FTP, AS2)
No	EBS volume	 Persistent block storage Can attach to any instance in the same availability zone HDD or SSD Can be encrypted Snapshot persisted to S3 Data persistence independent from instance status
Yes	Amazon EFS	 File system storage for Linux based Fully managed Scaling up and down automatically Supports NFS Mount the FS to the EC2 instance
Yes	Amazon FSx for Windows File Server	 File system for windows NTFS Integrates with MS Active Directory and supports Windows Access Control Lists (ACLs)

COMPUTE		
No		Virtual Machine
	Amazon Elastic Compute Cloud (Amazon EC2)	1. Can scale up or down as needed
Yes	EC2 Image Builder	 Produces secure, validated and up to date images Enforces version control
No	AWS Compute Optimizer	Recommends optimal instance Analyses workload and makes recommendation
No	Amazon Elastic Container Service (Amazon ECS)	Container
No	Amazon Elastic Kubernetes Service (Amazon EKS)	Container
No	Amazon Lightsail	Virtual Private Server (VPS)
No		Platform as Service (PaaS)

	AWS Elastic Beanstalk	
No		Serverless
	AWS Lambda	
No		Serverless
	AWS Fargate	
	Г	DATABASE
Yes		1. Relational database
	K_Z	2. 7 choices including Aurora
		Uses Amazon EBS for database and log storage (done within the RDS instance)
	L 7	Within the ribe inetallies)
	Amazon RDS	
Yes		Full MySQL/PostgreSQL compatibility Mysti A7 double great with Average Bog lines.
	○ †.+	2. Multi-AZ deployment with Aurora Replicas
	Aurora	
	7.4	
Yes		Key-value and document data models
		2. MongoDB compatibility
	Amazon DynamoDB	
	Бупатіовь	
Yes		JSON Document database
		Different from DynamoDB
		3. MongoDB compatible
	DocumentDB	
Yes		1 Graph database
tes		Graph database

	Amazon Neptune	
Yes		1. Wide column data model
	Amazon Keyspaces	2. Apache Cassandra compatible
Yes		
	Amazon ElastiCache	
Yes		Timeseries database
	Amazon Timestream	
Yes		Ledger database
	Amazon Quantum Ledger Database (Amazon QLDB)	2. Tracks every application change
Yes		1. Redis compatible
	Amazon MemoryDB for Redis	2. In memory database service
Yes		Data warehousing service
		2. Has serverless option
	L	

	Amazon Redshift	
Yes		Migration and replication service
		2. Helps moving database to AWS
	AWS DMS	
		NETWORKING
		COMPONENTS
No		Isolated virtual network
		2. Belongs to ONE region
	Amazon VPC	3. Sized by range of IP addresses (=CIDR block)
No		Public Subnet
No		When associated to an internet gateway, it has access to internet Instances in a public subnet require a public and private IP address
		private ii address
No	₽	Private Subnet 1. No direct access to internet
No		Elastic IP address
140	O \	1. Public
	\longrightarrow	2. Static
		3. Associated with 1 instance
		4. Can be transferred to another instance
.		Don't to be
No	172.16.0.0 172.16.1.0 172.16.2.0	Route table
No		NAT gateway

	PT	
No		Network ACL (Access Control Layer)
No		AWS Network Firewall
No		Elastic Network Interface
No	9	Interface VPC endpoint
No		Gateway load balancer
No	Site-to-Site VPN	 Creates a secure connection an on-premises gateway and AWS virtual private OR transit gateway Creates 2 encrypted tunnels for each connection
No	AWS Global Accelerator	Accelerate site-to-site VPN connection
No		1.

	Transit Gateway	
No	1	Transit Gateway Attachment
Yes	Direct Connect	Dedicate and private VLAN Extend on-premises network
		TROUBLESHOOTING
No		Reachability analyser
		Test connectivity between a source and destination resources in a VPC
No		Network Access analyser
110	\$ <u>1</u>	Identify unintended network access to your resources on AWS
No		Traffic Mirroring
		Make a copy of network traffic to send to security and monitoring appliances.
		SECURITY
No		AWS Identity and Access Management (IAM)
No	िल्	AWS IAM Identity Center (successor to AWS Single Sign-On) 1. Create/connect identities and manage access centrally across AWS accounts 2. Unified administration

No		AWS Security Token Service
	STS	 Web API to request temporary access Credentials can be used by IAM users, federated users and applications
Yes		Amazon Cognito 1. Authentication, authorization and user management 2. Federated identities
Yes	AWS Organizations	 Account management service to consolidate AWS accounts Hierarchical grouping of accounts Central policy control
Yes	AWS Control Tower	Facilitate setup and governance over multi-AWS accounts 2.
No	AWS KMS	 Create/manage cryptographic keys Uses HSM to protect the keys Set usage policies by users
?		AWS WAF Web application firewall
?		Macie Service that discovers sensitive data in S3
?		Amazon inspector

		Vulnerability management service on EC2, ECR and AWS lambda.
?	S.	Amazon Detective Analyse, investigate and identify the root cause of security findings or suspicious activities Collect logs automatically from AWS resources.
?	ॐ	AWS Security Hub Collects security data across AWS accounts
Yes	Trusted Advisor	Provides recommendations based on AWS best practices: 1. cost optimization 2. security 3. fault tolerance 4. service limits 5. performance improvement
		1.