1. AWS Batch: AWS Batch enables developers, scientists, and engineers to run hundreds of thousands of batch computing jobs easily and efficiently on AWS.
2. AWS Elastic Beanstalk: AWS Elastic Beanstalk is an easy-to-use service for **deploying and scaling** web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.
3. AWS CloudTrail: AWS CloudTrail is used for auditing. AWS CloudTrail is an auditing service that monitors API activity in your account. Whenever you perform any operation in the account this results in an API action and this information is recorded to create an audit trail.
4. Amazon EFS: The Elastic File System (EFS) is used for storing data and is mounted by EC2 instances. EFS volumes cannot be used for the root storage volume but can be mounted to store data
5. Amazon Inspector: Amazon Inspector is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS.
6. Dedicated Host: Dedicated Host is a physical server with EC2 instance capacity fully dedicated to your use. Dedicated Hosts allow you to use your existing per-socket, per-core, or per-VM software licenses, including Windows Server, Microsoft SQL Server, SUSE, and Linux Enterprise Server.
7. Amazon Macie: It is a fully managed data security and data privacy service that uses machine learning and pattern matching to discover and protect your sensitive data in AWS. Amazon Macie automates the discovery of sensitive data at scale and lowers the cost of protecting your data.
8. Amazon GuardDuty: It is a threat detection service that continuously monitors for malicious activity and unauthorized behavior to protect your AWS accounts, workloads, and data stored in Amazon S3.
9. AWS Policy Generator: The AWS Policy Generator is a tool that enables you to create policies that control access to Amazon Web Services (AWS) products and resources.
10. Amazon Aurora: It is a relational database that is compatible with MySQL and PostgreSQL database engines. Aurora is extremely fast and scales up to 128 TB. You can also deploy replicas for read scaling within and across regions. Aurora also offers automated backups.
11. DynamoDB: It is a NoSQL (non-relational) database, and you cannot deploy a MySQL database as it is a relational database type.
12. Amazon Athena: Athena is used for querying data in Amazon S3 using SQL.
13. AWS Cost Explorer: It has an easy-to-use interface that lets you visualize, understand, and manage your AWS costs and usage over time. AWS Cost Explorer provides you with a set of default reports that you can use as the starting place for your analysis. From there, use the filtering and grouping capabilities to dive deeper into your cost and usage data and generate custom insights. Cost Explorer is used for viewing costs and will not assist with service limits.
14. AWS Budgets: It allows you to set custom budgets to track your cost and usage from the simplest to the most complex use cases.
15. AWS Organizations: It allows you to organize accounts, create accounts programmatically, and leverage consolidated billing
16. Principal element: It specifies the user, account, service, or other entity that is allowed or denied access to a resource.
17. Actions: Actions are the permissions that you can specify in a policy.
18. Resources: Resources are the ARNs of resources you wish to specify permissions for.
19. Conditions: It define certain conditions to apply when granting permissions such as the source IP address of the caller
20. Amazon CloudWatch: It is a performance monitoring service. AWS services send metrics about their utilization to CloudWatch which collects the metrics. You can then view the results in CloudWatch and configure alarms
21. AWS Systems Manager: Systems Manager is used for managing EC2 instances such as installing patches and software.
22. Amazon Elastic Block Store (EBS): It provides block-based storage volumes for Amazon EC2 instances. Root volumes are where the operating system is installed and can be either EBS volumes or instance store volumes.
23. Amazon Machine Image: An AMI provides the information required to launch an instance including the mapping of EBS volumes. You must specify an AMI when you launch an instance. You can launch multiple instances from a single AMI when you need multiple instances with the same configuration. You can use different AMIs to launch instances when you need instances with different configurations
24. Amazon S3 buckets: It cannot be attached to EC2 instances in any way, it is a service that is accessed via a REST API
25. Amazon CloudFront: It is a content delivery network (CDN) that caches content around the world for lower latency access.
26. AWS Global Accelerator: It enables access to your application by leveraging the same Edge Locations as CloudFront and routing connections across the AWS global network.
27. AWS Direct Connect: This service provides private connections from data centers to AWS. It is not useful for distributed users as they will not be able to take advantage of it. Direct Connect is used for creating a low-latency private connection to an on-premises data center but it cannot be used to extend the VPC. Although Direct Connect is a service for creating hybrid connections to on-premises data centers, it is a direct physical cable connection and not a storage service.
28. AWS Transit Gateway: This service is used for optimizing the network topology of interconnected VPCs and on-premises networks.
29. AWS Snowcone: Snowcone is used as an edge device for transferring data.
30. AWS WAF: AWS Web Application Firewall (WAF) can be used to protect on-premises resources if they are deployed behind an Application Load Balancer (ALB).
31. Amazon EC2 security groups: Security groups can only be attached to EC2 instances
32. Amazon VPC network ACLs: Network ACLs only filter traffic entering and leaving a VPC subnet.
33. AWS Outposts: it is a fully managed service that offers the same AWS infrastructure, AWS services, APIs, and tools to virtually any datacenter, co-location space, or on-premises facility for a truly consistent hybrid experience. With AWS Outposts you can extend your VPC into the on-premises data center as in the following diagram:
34. Amazon Connect: Amazon Connect provides a seamless omnichannel experience through a single unified contact center for voice, chat, and task management.
35. Amazon ElastiCache: ElastiCache is a database caching service, it is not used to cache websites.
36. AWS CodeCommit: It is a fully managed source control service that hosts secure Git-based repositories. It makes it easy for teams to collaborate on code in a secure and highly scalable ecosystem.
37. Amazon CodeDeploy: CodeDeploy is a deployment service that deploys your application onto infrastructure.
38. AWS CodePipeline: CodePipeline is a continuous delivery service that automates release pipelines for code. CodeCommit can be used in a pipeline.
39. AWS DataSync: DataSync is used for replication and migrating data between storage systems and AWS
40. AWS Quick Starts: Quick Starts are built by Amazon Web Services (AWS) solutions architects and partners to help you deploy popular technologies on AWS, based on AWS best practices for security and high availability. These accelerators reduce hundreds of manual procedures into just a few steps, so you can build your production environment quickly and start using it immediately.
41. CloudFormation: It is used to deploy infrastructure from templates, the Quick Starts use CloudFormation
42. AWS Artifact: Artifact provides on-demand access to AWS security and compliance reports. AWS Artifact is your go-to, central resource for compliance-related information that matters to you. It provides on-demand access to AWS’ security and compliance reports and select online agreements.
43. AWS Config: Config is a service used for compliance relating the configuration of AWS resources.
44. AWS Trusted Advisor: It offers a rich set of best practice checks and recommendations across five categories: cost optimization, security, fault tolerance, performance, and service limits. AWS Trusted Advisor can improve the performance of your service by checking your service limits, ensuring you take advantage of provisioned throughput, and monitoring for overutilized instances. AWS Trusted Advisor is an online tool that provides you real time guidance to help you provision your resources following AWS best practices. Trusted Advisor checks help optimize your AWS infrastructure, improve security and performance, reduce your overall costs, and monitor service limits.
45. AWS CodeBuild: CodeBuild is used for compiling and testing code ahead of deployment.
46. Cost allocation tags: It can be used to tag and categorize your resources and then run view the billing in Cost Explorer and the cost allocation report. For example, you can tag your resources by department or project and then view costs attributed to the resources used by those groups.
47. Consolidated billing: It will give you usage per account but not per project.Consolidated billing will give you usage per account but not per project.
48. Access keys: Access keys are long-term credentials for an IAM user or the AWS account root user. You can use access keys to sign programmatic requests to the AWS CLI or AWS API (directly or using the AWS SDK). Access keys consist of two parts: an access key ID (for example, AKIAIOSFODNN7EXAMPLE) and a secret access key (for example, wJalrXUtnFEMI/K7MDENG/bPxRfiCYEXAMPLEKEY).
49. Convertible Reserved: A convertible reserved instance enables you to exchange one or more Convertible Reserved Instances for another Convertible Reserved Instance with a different configuration, including instance family, operating system, and tenancy.
50. Standard Reserved Instances: With standard RIs you cannot change the instance type, but you can change the instance size.
51. Regional Reserved Instances: Regional RIs apply to instance usage within any AZ in a specified Region.
52. Zonal Reserved Instances: Zonal RIs apply to instance usage within a specific AZ within an AWS Region
53. Point-in-time recovery (PITR): Point-in-time recovery (PITR) provides continuous backups of your DynamoDB table data. When enabled, DynamoDB maintains incremental backups of your table for the last 35 days until you explicitly turn it off. It is a customer responsibility to enable PITR on and AWS is responsible for actually performing the backups.
54. Elasticity: It can resolve the issue of underutilization as you can easily and automatically adjust the resource allocations for your compute resources based on actual utilization. This ensures that you have the right amount of resources and do not pay for more than you need.
55. Amazon SNS: It is a publisher/subscriber notification service that uses a push mechanism to publish messages to multiple subscribers. Amazon SNS enables you to send messages or notifications directly to users with SMS text messages to over 200 countries, mobile push on Apple, Android, and other platforms or email (SMTP)
56. Amazon Simple Queue Service (Amazon SQS): SQS is a message queue service used for decoupling applications
57. Amazon Simple Workflow Service (SWF): SWF is a workflow orchestration service, not a messaging service.
58. AWS Step Functions: AWS Step Functions is a serverless workflow orchestration service for modern applications.
59. software development kit (SDK) : A software development kit (SDK) is a collection of software development tools in one installable package. AWS provide SDKs for various programming languages and these can be used for integrating the features of AWS services directly into an application.
60. AWS CLI: The AWS CLI is used for running commands but is not the best tool for integrating features of AWS services directly into an application.
61. Scheduled scaling: It helps you to set up your own scaling schedule according to predictable load changes. For example, let's say that every week the traffic to your web application starts to increase on Wednesday, remains high on Thursday, and starts to decrease on Friday. You can configure a schedule for Amazon EC2 Auto Scaling to increase capacity on Wednesday and decrease capacity on Friday.
62. Predictive scaling: It uses daily and weekly trends to determine when to scale. In this case the Cloud Practitioner knows about the event that will require more resources
63. Scaling policy: Step scaling will launch resources in response to demand, this will not ensure the resource are ready at the right time as there will be a delay.
64. AWS CDK : The AWS Cloud Development Kit (AWS CDK) is an open source software development framework to define cloud application resources using familiar programming languages. With AWS CDK you can stick to using programming languages that are familiar to you and have infrastructure deployed using AWS CloudFormation.
65. Amazon CodeGuru: CodeGuru is used to review code and provide intelligent recommendations for improvement.
66. AWS Config: AWS Config is used for configuration compliance management.
67. Amazon RedShift: RedShift is managed data warehouse solution and is better suited to use cases where analytics of data is required.
68. AWS Health Dashboard: The health dashboard shows issues or upcoming events that may impact your resources. It does not notify of service limit breaches.
69. AWS Marketplace: AWS Marketplace is a curated digital catalog that makes it easy for organizations to discover, procure, entitle, provision, and govern third-party software. You can find thousands of software listings from popular categories like security, business applications, and data & analytics, and across specific industries, such as healthcare, financial services, and public sector.
70. AWS Managed Service: This describes services in which AWS customers don’t have to provision their own infrastructure.
71. AWS License Manager: It is a service that makes it easier for you to manage Software Licenses
72. AWS Resource Access Manage: It is a service that helps you to securely share your resources across AWS accounts, within your organization or organizational units (OUs) within AWS and has nothing to do with third party services.
73. AWS Storage Gateway: It is a hybrid cloud storage service that gives you on-premises access to virtually unlimited cloud storage. You can use Storage Gateway to simplify storage management and reduce costs for key hybrid cloud storage use cases. These include moving backups to the cloud, using on-premises file shares backed by cloud storage, and providing low-latency access to data in AWS for on-premises applications.
74. Amazon Connect: Connect is a cloud-based telecommunications service providing managed cloud-based customer contact centers.
75. AWS Backup: This is a service which manages backups in a cost-effective, fully managed, policy-based manner.