**1. You want to use an Amazon EC2 instance for a batch processing workload. What would be the best Amazon EC2 instance type to use?**

Compute optimized

The other response options are incorrect because:

**General purpose** instances provide a balance of compute, memory, and networking resources. This instance family would not be the best choice for the application in this scenario. Compute optimized instances are more well suited for batch processing workloads than general purpose instances.

**Memory optimized** instances are more ideal for workloads that process large datasets in memory, such as high-performance databases.

**Storage optimized** instances are designed for workloads that require high, sequential read and write access to large datasets on local storage. The question does not specify the size of data that will be processed. Batch processing involves processing data in groups. A compute optimized instance is ideal for this type of workload, which would benefit from a high-performance processor.

2. **Reserved Instances** require a commitment of either 1 year or 3 years. The 3-year option offers a larger discount.

3. **AWS Outposts** is a service that enables you to run infrastructure in a hybrid cloud approach.

4**. AWS Fargate** is a serverless compute engine for containers.

5. **An origin** is the server from which CloudFront gets your files. Examples of CloudFront origins include Amazon Simple Storage Service (Amazon S3) buckets and web servers.

6. **A virtual private gateway** enables you to create a VPN connection between your VPC and a private network, such as your company’s data center. Although this connection is private and encrypted, it travels through the public internet, not through a dedicated connection.

7. **Security groups** are stateful and deny all inbound traffic by default. Security groups are stateful. This means that they use previous traffic patterns and flows when evaluating new requests for an instance. By default, security groups deny all inbound traffic, but you can add custom rules to fit your operational and security needs.

8. Which Amazon **S3 storage classes are optimized for archival data**?

S3 Glacier & S3 Glacier Deep Archive

Objects stored in the **S3 Glacier storage** class can be retrieved within a few minutes to a few hours. By comparison, objects that are stored in the **S3 Glacier Deep Archive** storage class can be retrieved within 12 hours.

9. **S3 Standard** is a storage class that is ideal for frequently accessed data, not archival data.

**S3 Intelligent**-Tiering monitors access patterns of objects and automatically moves them between the S3 Standard and S3 Standard-IA storage classes. It is not designed for archival data. **S3 Standard-IA** is ideal for data that is infrequently accessed but requires high availability when needed.

10. **EBS volumes** store data within a single Availability Zone. Amazon **EFS file systems** store data **across** multiple Availability Zones.

11. **Amazon DynamoDB** - A serverless, key-value database service.

12. A service that enables you to run relational databases in the AWS Cloud describes Amazon Relational Database Service (**Amazon RDS**).

A service that you can use to migrate relational databases, nonrelational databases, and other types of data stores describes **AWS Database Migration Service** (AWS DMS).

An enterprise-class relational database describes **Amazon Aurora.**

13. **Amazon Neptune** is a graph database service. You can use Amazon Neptune to build and run applications that work with highly connected datasets, such as recommendation engines, fraud detection, and knowledge graphs.

14. Amazon **DocumentDB** is a document database service that supports MongoDB workloads.

15. Amazon **ElastiCache** is a service that adds caching layers on top of your databases to help improve the read times of common requests. A service that enables you to set up, manage, and scale a distributed in-memory or cache environment in the cloud - This response option describes Amazon ElastiCache.

16. **IAM policies** provide you with the flexibility to customize users’ levels of access to resources. For instance, you can allow users to access all the Amazon S3 buckets in your AWS account or only a specific bucket.

17. **Multi-factor authentication** (MFA) is an authentication process that provides an extra layer of protection for your AWS account.

18. An **IAM role** is an identity that you can assume to gain temporary access to permissions.

The root user identity is the identity that is established when you first create an AWS account.

19. **Service control policies (SCPs)** enable you to centrally control permissions for the accounts in your organization. An SCP is not the best choice for granting temporary permissions to an individual employee.

20. **Amazon GuardDuty** is a service that provides *intelligent threat detection* for your AWS infrastructure and resources. It identifies threats by continuously monitoring the network activity and account behavior within your AWS environment.

21. **Amazon Inspector** is an automated security assessment service that helps improve the security and compliance of applications deployed on AWS. Amazon Inspector automatically assesses applications for exposure, vulnerabilities, and deviations from best practices. After performing an assessment, Amazon Inspector produces a detailed list of security findings prioritized by level of severity. These findings can be reviewed directly or as part of detailed assessment reports which are available via the Amazon Inspector console or API. Amazon Inspector security assessments help you check for unintended network accessibility of your Amazon EC2 instances and for vulnerabilities on those EC2 instances.

22. **AWS Artifact** is a service that provides on-demand access to AWS security and compliance reports and select online agreements.

23. Actions we can perform using **Amazon CloudWatch**

* Monitor your resources’ utilization and performance,
* Access metrics from a single dashboard.

24. Receiving real-time recommendations for improving your AWS environment can be performed by AWS Trusted Advisor. Comparing your infrastructure to AWS best practices in five categories can be performed by **AWS Trusted Advisor**.

25. Automatically detecting unusual account activity can be performed by **AWS CloudTrail.**

26. **Consolidated billing -** Combine usage across accounts to receive volume pricing discounts.

27. Review how much cost your predicted AWS usage will incur by the end of the month - You can perform this action in **AWS Budgets.**

28. Create an estimate for the cost of your use cases on AWS - You can perform this action in **AWS Pricing Calculator.**

29. Visualize and manage your AWS costs and usage over time - You can perform this action in **AWS Cost Explorer.**

30. **A Technical Account Manager (TAM)** is available only to AWS customers with an Enterprise Support plan. A TAM provides guidance, architectural reviews, and ongoing communication with your company as you plan, deploy, and optimize your applications.

31. The **application migration strategies** are rehosting, replatforming, refactoring/re-architecting, repurchasing, retaining, and retiring.

32. **Amazon Lex** - A service that enables you to build conversational interfaces using voice and text

33. A machine learning service that automatically extracts text and data from scanned document describes **Amazon Textract**.

34. A document database service that supports MongoDB workloads describes **Amazon DocumentDB.**

35. A service that enables you to identify potentially fraudulent online activities describes **Amazon Fraud Detector.**

36. The six **advantages of cloud computing** are:

* Trade upfront expense for variable expense.
* Benefit from massive economies of scale.
* Stop guessing capacity.
* Increase speed and agility.
* Stop spending money running and maintaining data centers.
* Go global in minutes.

37. **5** **Pillars of the** **AWS Well-Architected Framework**.

**Operational Excellence** - The Operational Excellence pillar includes the ability to run workloads effectively, gain insights into their operations, and continuously improve supporting processes to deliver business value.

**Security -** The Security pillar focuses on protecting data, systems, and assets. It also focuses on using cloud technologies to improve the security of your workloads.

**Reliability -** The Reliability pillar focuses on the ability of a workload to consistently and correctly perform its intended functions.

**Performance Efficiency** - The Performance Efficiency pillar focuses on using computing resources efficiently to meet system requirements, and to maintain that efficiency as demand changes and technologies evolve.

**Cost Optimization** –

38. Which Perspective of the AWS Cloud Adoption Framework focuses on recovering IT workloads to meet the requirements of your business stakeholders? **Operations Perspective**

39. The **Business Perspective** helps you to move from a model that separates business and IT strategies into a business model that integrates IT strategy.

40. The **People Perspective** helps Human Resources (HR) employees prepare their teams for cloud adoption by updating organizational processes and staff skills to include cloud-based competencies.

41. The **Governance Perspective** helps you understand how to update the staff skills and organizational processes that are necessary to ensure business governance in the cloud.

42. Amazon **ElastiCache** is a service that adds caching layers on top of your databases to help improve the read times of common requests.

43. **Amazon SQS** is a message queuing service. Using Amazon SQS, you can send, store, and receive messages between software components at any volume size, without losing messages or requiring other services to be available. In Amazon SQS, an application sends messages into a queue. A user or service retrieves a message from the queue, processes it, and then deletes it from the queue.

44. **Amazon SageMaker** is a service that enables you to quickly build, train, and deploy machine learning models.

45. You upload your application, and **Elastic Beanstalk** automatically handles the deployment details of capacity provisioning, load balancing, auto-scaling, and application health monitoring. This service is used to quickly deploy and scale applications on AWS.

46. **Amazon EBS** provides block-level storage volumes that you can use with Amazon EC2 instances. If you stop or terminate an Amazon EC2 instance, all the data on the attached EBS volume remains available.

47. **AWS DeepRacer** is an autonomous 1/18 scale race car that you can use to test reinforcement learning models.

48. **Amazon Augmented AI** - service enables you to build the workflows that are required for human review of machine learning predictions.

49. **AWS Direct Connect** is a service that enables you to establish a dedicated private connection between your data center and VPC.

50. A **virtual private gateway** enables you to establish a virtual private network (VPN) connection between your VPC and a private network, such as an on-premises data center or internal corporate network. A virtual private gateway allows traffic into the VPC only if it is coming from an approved network.

51. An **internet gateway** is a connection between a VPC and the internet. It allows public traffic from the internet to access a VPC.

52. **Amazon Quantum Ledger Database (Amazon QLDB)** is a ledger database service. You can use Amazon QLDB to review a complete history of all the changes that have been made to your application data.

53. Which tool is used to automate actions for AWS services and applications through scripts?

AWS Command Line Interface

The **AWS Command Line Interface (AWS CLI)** enables you to control multiple AWS services directly from the command line within one tool. For example, you can use commands to start an Amazon EC2 instance, connect an Amazon EC2 instance to a specific Auto Scaling group, and more. The AWS CLI is available for users on Windows, macOS, and Linux.

54. In the S3 Intelligent-Tiering storage class, Amazon S3 moves objects between a frequent access tier and an infrequent access tier. Which storage classes are used for these tiers?

S3 Standard, S3 Standard-IA

In the **S3 Intelligent**-Tiering storage class, Amazon S3 monitors objects’ access patterns. If you haven’t accessed an object for 30 consecutive days, Amazon S3 automatically moves it to the infrequent access tier, S3 Standard-IA. If you access an object in the infrequent access tier, Amazon S3 automatically moves it to the frequent access tier, S3 Standard.

55. **Instance stores** are ideal for temporary data that does not need to be kept long term.

56. **Amazon S3 buckets** cannot be attached to Amazon EC2 instances.

57. Which compute option reduces costs when you commit to a consistent amount of compute usage for a 1-year or 3-year term? Savings Plans

58. **Amazon EC2 Savings Plans** - enable you to reduce your compute costs by committing to a consistent amount of compute usage for a 1-year or 3-year term. This results in savings of up to 72% over On-Demand Instance costs. Any usage up to the commitment is charged at the discounted Savings Plan rate (for example, $10 an hour). Any usage beyond the commitment is charged at regular On-Demand Instance rates.

59. **Reserved Instances** are a billing discount that is applied to the use of On-Demand Instances in your account. You can purchase *Standard Reserved and Convertible Reserved* *Instances* for a one-year or three-year term and *Scheduled Reserved Instances* for a one-year term. Unlike Savings Plans, Reserved Instances do not require you to commit to a consistent amount of compute usage over the duration of the contract.

60. **Spot Instances** are ideal for workloads with flexible start and end times or that can withstand interruptions. Spot Instances leverage unused EC2 computing capacity and offer you cost savings at up to 90% of On-Demand Instance prices.

61. **Dedicated Hosts** are physical servers with EC2 instance capacity that is fully dedicated to your use. You can use your existing per-socket, per-core, or per-VM software licenses to help maintain license compliance. You can purchase On-Demand Dedicated Hosts or Reserved Dedicated Hosts. Of all the Amazon EC2 options that were covered in this course, Dedicated Hosts are the most expensive.

62. Amazon **DynamoDB** is a key-value database service. A key-value database might include data pairs such as “Name: John Doe,” “Address: 123 Any Street,” and “City: Anytown”. In a key-value database, you can add or remove attributes from items in the table at any time. Additionally, not every item in the table has to have the same attributes.

63. **Amazon Relational Database Service** (Amazon RDS) and **Amazon Aurora** use structured query language (SQL) to store and query data. They are not key-value databases.

64. **Responsibilities of AWS** - Configuring AWS infrastructure devices,

- Maintaining virtualization infrastructure.

- Protecting against IP spoofing and packet sniffing

- Installing the latest security patches on the RDS instance

**Responsibilities of customers** - Training company employees on how to use AWS service

- Configuring security groups on Amazon EC2 instances

- Creating IAM users and groups

- Ensuring Amazon EBS volumes are backed up

65. **AWS Cost Explorer**, you can quickly create custom reports to analyze your AWS cost and usage data.

66. **AWS Budgets** lets you set custom alerts that will notify you when your service usage exceeds (or is forecasted to exceed) the amount that you have budgeted.

67. **AWS Pricing Calculator** lets you explore AWS services and create an estimate for the cost of your use cases on AWS. In the AWS Pricing Calculator, you can enter details for your cloud computing requirements and then receive a detailed estimate that can be exported and shared.

68. Which **migration strategy** involves changing how an application is architected and developed, typically by using cloud-native features? Refactoring

**Repurchasing** involves replacing an existing application with a cloud-based version, such as software found in AWS Marketplace.

**Rehosting** involves moving an application to the cloud with little to no modifications to the application itself. It is also known as “*lift and shift*.”

**Replatforming** involves selectively optimizing aspects of an application to achieve benefits in the cloud without changing the core architecture of the application. It is also known as “lift, tinker, and shift.”

69. You want Amazon S3 to monitor your **objects’ access patterns**. Which storage class should you use? S3 Intelligent-Tiering

In the **S3 Intelligent-Tiering** storage class, Amazon S3 monitors objects’ access patterns. If you haven’t accessed an object for 30 consecutive days, Amazon S3 automatically moves it to the infrequent access tier, S3 Standard-IA. If you access an object in the infrequent access tier, Amazon S3 automatically moves it to the frequent access tier, S3 Standard.

**S3 Glacier** is a low-cost storage class that is ideal for data archiving. You can retrieve objects stored in the S3 Glacier storage class within a few minutes to a few hours.

The **S3 Standard-IA** storage class is ideal for data that is infrequently accessed but requires high availability when needed. Both S3 Standard and S3 Standard-IA store data in a minimum of three Availability Zones. S3 Standard-IA provides the same level of availability as S3 Standard but at a lower storage price.

**S3 One Zone-IA** is ideal for infrequently accessed data that does not require high availability.

70. **Availability**

* A **security group** is tied to a region and can be assigned only to instances in the same **region**.
* You cannot create an **endpoint** between a VPC and an AWS service in a different **region**.
* **Elastic IP address** created within the region can be assigned to instances within the **region** only
* **Amazon EC2 created key pairs** are specific to the **region**
* **RSA key pair** can be created and uploaded that can be used in **all regions (Global)**
* An **instance** is tied to the **Availability Zones** in which you launched it. However, note that its **instance ID is tied to the region**.
* **Amazon EBS volume** is tied to its **Availability Zone** and can be attached only to instances in the same Availability Zone.
* **AMI** provides templates to launch EC2 instances. AMI is tied to the **Region** where its files are located with Amazon S3. For using **AMI in different regions**, the AMI can be copied to other regions.
* **Auto Scaling** spans across multiple Availability Zones within the same region but cannot span across **regions.**
* **Elastic Load Balancer** distributes traffic across instances in multiple Availability Zones in the same **region.**
* **S3** – **Global** but **Data** is **Regional**.
* **Route53** services are offered at AWS edge locations and are **global.**
* **DynamoDb** – **Regional**, all data objects are stored within the same region and replicated across multiple Availability Zones in the same region. Data objects can be explicitly replicated across regions using cross-region replication
* **CloudFront** is the **global** content delivery network (CDN) services are offered at AWS edge locations.
* **Storage Gateway** – **Regional,** AWS Storage Gateway stores volume, snapshot, and tape data in the AWS region in which the gateway is activated.

71. **AWS WAF** - **Web Application Firewall**. AWS WAF is a web application firewall that helps protect your web applications or APIs against common web exploits and bots that may affect availability, compromise security, or consume excessive resources. AWS WAF gives you control over how traffic reaches your applications by enabling you to create security rules that control bot traffic and block common attack patterns, such as SQL injection or cross-site scripting.

72. **Amazon Macie** is a security service that uses machine learning to automatically discover, classify, and protect sensitive data in AWS. Macie recognizes sensitive data such as *personally identifiable information (PII) or intellectual property*. It provides you with dashboards and alerts that give visibility into how this data is being accessed or moved.”

73. **AWS Data Pipeline** is a web service that helps you reliably process and move data *between* *different AWS compute and storage services, as well as on-premises data sources*, at specified intervals. With AWS Data Pipeline, you can regularly access your data where it’s stored, transform and process it at scale, and efficiently transfer the results to AWS services such as Amazon S3, Amazon RDS, Amazon DynamoDB, and Amazon EMR.

74. **Amazon Connect** is an easy to use omnichannel cloud contact center that helps you provide superior customer service at a lower cost. Over 10 years ago, Amazon’s retail business needed a contact center that would give our customers personal, dynamic, and natural experiences. We couldn’t find one that met our needs, so we built it. We've now made this available for all businesses, and today thousands of companies ranging from 10 to tens of thousands of agents use Amazon Connect to serve millions of customers daily.

75. AWS Marketplace allow users to do? –

B. Sell solutions to other AWS users.

C. Buy third-party software that runs on AWS.

76. **AWS Config** is a service that enables you to assess, audit, and evaluate the configurations of your AWS resources. Config continuously monitors and records your AWS resource configurations and allows you to automate the evaluation of recorded configurations against desired configurations.

77. **Amazon S3 File Gateway** enables you to store file data as objects in Amazon S3 cloud storage for data lakes, backups, and ML workflows. For user or team file shares, and file-based application migrations, **Amazon FSx File Gateway** provides low-latency, on-premises access to fully managed file shares in Amazon FSx for Windows File Server.

78. **VPC Flow Logs** is a feature that enables you to capture information about the IP traffic going to and from network interfaces in your VPC.

79. **AWS Global Accelerator** is a service in which you create accelerators to improve availability and performance of your applications for local and global users. Global Accelerator directs traffic to optimal endpoints over the AWS global network. This improves the availability and performance of your internet applications that are used by a global audience. Global Accelerator is a **global service** that supports endpoints in multiple AWS Regions, which are listed in the AWS Region Table.

80. **Security best practices in IAM:**

--Lock away your AWS account root user access keys

--Create individual IAM users

--Use groups to assign permissions to IAM users

--*Grant least privilege*

--Get started using permissions with AWS managed policies

--Validate your policies

--Use customer managed policies instead of inline policies

--Use access levels to review IAM permissions

--Configure a strong password policy for your users

--Enable MFA

--Use roles for applications that run on Amazon EC2 instances

--Use roles to delegate permissions

--Do not share access keys

--Rotate credentials regularly

--Remove unnecessary credentials

--Use policy conditions for extra security

--Monitor activity in your AWS account

81. **AWS CloudHSM** is a cloud-based hardware security module (HSM) that enables you to easily generate and use your own encryption keys on the AWS Cloud. CloudHSM (Hardware Security Module) service helps you meet corporate, contractual, and regulatory compliance requirements for data security by using dedicated Hardware Security Module (HSM) instances within the AWS cloud.

82. **AWS Lambda** is an event-driven, serverless computing platform.

83. The **EFS file system** can be used by multiple EC2 instances from different data centers in parallel. Additionally, the data of the EFS file system is replicated among multiple data centers & Availability Zones (AZ). Also, it remains available even if a whole data center suffers from an outage, which isn’t true for EBS and Instance Store.

83. **Auto scaling** - provides a simple, powerful user interface that lets you build scaling plans for resources including Amazon EC2 instances and Spot Fleets, Amazon ECS tasks, Amazon DynamoDB tables and indexes, and Amazon Aurora Replicas.

84. **DynamoDB & RDS** are both fully managed services so AWS is responsible for them

85. **Amazon Polly** (Text-to-Speech) - is a service that turns text into lifelike speech, allowing you to create applications that talk, and build entirely new categories of speech-enabled products.

86. **Amazon Transcribe** (Speech-to-Text) uses a deep learning process called automatic speech recognition (ASR) to convert speech to text quickly and accurately.

87. **Amazon Lex** (Conversational AI for Chatbots) is a service for building conversational interfaces into any application using voice and text.

88. **Amazon Rekognition** (Automate Image and Video Analysis) makes it easy to add image and video analysis to your applications using proven, highly scalable, deep learning technology that requires no machine learning expertise to use. With Amazon Rekognition, you can identify objects, people, text, scenes, and activities in images and videos, as well as detect any inappropriate content.

89. **Amazon SageMaker** (Build and Deploy Machine Learning Models) is a fully managed service that provides every developer and data scientist with the ability to build, train, and deploy machine learning (ML) models quickly.

90. **AWS OpsWorks** is a configuration management service that provides managed instances of Chef and Puppet. Chef and Puppet are automation platforms that allow you to use code to automate the configurations of your servers. **OpsWorks has three offerings**, AWS Opsworks for Chef Automate, AWS OpsWorks for Puppet Enterprise, and AWS OpsWorks Stacks.

91. **AWS Storage Gateway** is a hybrid cloud storage service that gives you on-premises access to virtually unlimited cloud storage.

92. A **security group** is an AWS firewall solution that performs one primary function: *to filter incoming and outgoing traffic from an EC2 instance.* It accomplishes this filtering function at the TCP and IP layers, via their respective ports, and source/destination IP addresses.

93. **AWS Transit Gateway** abstracts away the complexity of maintaining VPN connections with hundreds of VPCs. AWS Transit Gateway now supports the ability to *establish peering connections between Transit Gateways in different AWS Regions.*

94. **S3 One Zone-IA (Infrequent Access)** is for data that is accessed less frequently but requires rapid access when needed. Unlike *other* S3 Storage Classes which store data in a minimum of *three Availability Zones (AZs*), S3 One Zone-IA stores data in a single AZ and costs 20% less than S3 Standard-IA. S3 One Zone-IA is ideal for customers who want a lower-cost option for infrequently accessed data but do not require the availability and resilience of S3 Standard or S3 Standard-IA. It’s a good choice for *storing secondary backup copies of on-premises data or easily re-creatable data.*

95. **Infrastructure automation tools** - AWS CloudFormation, AWS OpsWorks.

96. **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 (Command Line Interface), SDK (Software Development Kit), and other development tools*. IAM policies don't have access keys. The only way you will ever get an *Access key is to create them from an IAM user*. Access keys consist of an access key ID and secret access key, which are used to sign programmatic requests that you make to AWS. If you don't have access keys, you can create them from the AWS Management Console. The only time that you can view or download the secret access key is when you create the keys. You cannot recover them later. However, you can create new access keys at any time. The AWS CLI requires four pieces of information to be used:

--Access key ID --Secret access key --AWS Region --Output format.

96. **A list of compute services:**

--Amazon EC2 --Amazon EC2 Auto Scaling

--Amazon Elastic Container Registry --Amazon Elastic Container Service

--Amazon Elastic Kubernetes Service --Amazon Lightsail

--AWS Batch --AWS Elastic Beanstalk

--AWS Fargate --AWS Lambda

--AWS Serverless Application Repository --AWS Outposts --VMware Cloud on AWS

97. **Serverless Services**

-- AWS Lambda -- Amazon S3

-- AWS Athena -- AWS DynamoDB

-- API Gateway --Amazon Kinesis

-- Amazon SNS -- Amazon SQS -- AWS Step Function.

98**. Trusted Advisor** analyses your AWS account and provides recommendation for:

-- Cost Optimization -- Performance -- Security

-- Fault Tolerance -- Service Limits

99. **Control Tower** automates the process of setting up a new baseline multi-account AWS environment that is secure, well-architected, and ready to use. If you're an enterprise with multiple AWS accounts and teams, cloud setup and governance can be complex and time consuming, slowing down the very innovation you’re trying to speed up. AWS Control Tower provides the easiest way to set up and govern a new, secure, multi-account AWS environment based on best practices established through AWS’ experience working with thousands of enterprises as they move to the cloud.

100. **Amazon Route 53** – manager cross-region application traffic.

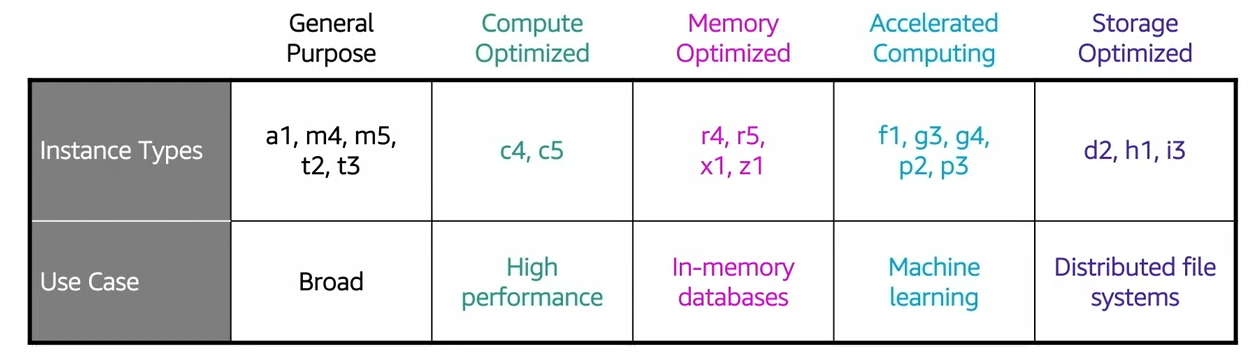
101. You can back up the data on your Amazon EBS volumes to Amazon S3 by taking point-in-time **snapshots**. Snapshots are incremental backups, which means that only the blocks on the device that have changed after your most recent snapshot are saved.

102. **Cloud Trail** – Who did what on AWS, concerned with people within your account. We can centralize log across many regions and many accounts. Events of max 90days

103. **Cloud Watch** – Concerned mainly with what’s happening with AWS resources, so you can respond to it. It has Metrics and Alarms, CloudWatch Logs and CloudWatch Events. (15months)

104. **VMWare** – Enables you to provision a hybrid cloud without custom hardware.

ATM C XRZ FGP HDI



**105. User data** – Script executes the first time the instance starts.

106. **Amazon DynamoDB Accelerator** (**DAX**) is a fully managed, highly available, in-memory cache for Amazon DynamoDB that delivers up to a 10 times performance improvement—from milliseconds to microseconds.

107. A cluster **placement group** is a logical grouping of instances within a single Availability Zone that benefit from low network latency, high network throughput.

108. With **Aurora**, you can provision up to 15 replicas, and replication is performed in milliseconds. By contrast, RDS allows only five replicas.

109.