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In this Task we are going to talk about 5 of AWS various Services

As we all know, AWS is immense and is never ending as they always keep in mind developing new services and updating the features of current services, and because of that.. AWS offers more that 20 Service, but we are going to talk about 5 of them only for the day.

Service #1. Amazon DynamoDB

DynamoDB is a promising addition to this list of AWS services. DynamoDB is a fully managed and serverless NoSQL database AWS service. And it is a fast and flexible database system that provides innovative opportunities to developers at low costs. It gives you single-digit millisecond performance with unlimited throughput and storage. DynamoDB has in-built tools to generate actionable insights, useful analytics, and monitor traffic trends in applications.

Service #2. AWS Aurora

Amazon Aurora is the next addition to this list of top AWS services in demand. Why? It is a MySQL and PostgreSQL compatible relational database with high performance. Believe it or not, it is five times faster than standard MySQL databases. And it allows for automating crucial tasks such as hardware provisioning, database setup and backups, and patching. Amazon Aurora is a distributed, fault-tolerant, self-healing storage system

that could scale automatically as per needs. Besides, you can even reduce costs significantly and enhance databases' security, availability, and reliability. (Would be useful for us in the classroom)

Service #3. (Which I found interesting myself) Amazon CloudFront

Amazon CloudFront is another credible mention in the list of renowned Amazon Web Services. This AWS service delivers content globally, which offers high performance and security. Mainly, it delivers data with high speed and low latency. Here, content is delivered to destinations successfully with automated network mapping and intelligent routing mechanisms. The security of data is enhanced with traffic encryption methods and access controls. Also, data can be transferred within milliseconds with its in-built data compression, edge computing capabilities, and field-level encryption. Besides, you gear up streaming high-quality video using AWS media services to any device quickly and consistently using Amazon CloudFront.

Service #4. (Found it related to my exp) Amazon Lightsail

Amazon Lightsail is the website and applications building AWS service. This service offers Virtual Private Server instances, containers, databases, and storage. It allows a serverless computing service with AWS Lambda. With Amazon Lightsail, you can create websites using pre-configured applications such as WordPress, Magento, Prestashop, and Joomla in a few clicks and at a low cost. In addition to this, it is the best tool for testing, so you can create, test, and delete sandboxes with your new ideas.

Service #5. Amazon Sagemaker

Amazon Sagemaker is the AWS service that allows building, training, and deploying Machine Learning (ML) models at a large capacity. It is an analytical tool that functions based on Machine Learning power to analyze data more efficiently. With its single tool-set, you can build high-quality ML models quickly. Amazon Sagemaker not only generates reports but provides the purpose for generating predictions too. In addition, Amazon Ground Truth Plus creates datasets without labeling applications.

Theoretical

Amazon Cognito :-

lets you easily add user sign-up and authentication to your mobile and web apps.

Amazon AppFlow :-

It enables you to securely transfer data between SaaS applications and AWS services without code

Amazon DynamoDB :-

Use this fully managed NoSQL database service to store and retrieve any amount of data, and serve any level of request traffic.

Amazon Kinesis :-

To securely stream video from camera-equipped devices in homes, offices, factories, and public places to AWS.

Amazon VPC :-

To launch AWS resources into a virtual network that is a logically isolated section of the AWS Cloud

Practical

The screenshot shows the AWS Management Console VPC dashboard. The top navigation bar includes the AWS logo, a search bar, and the current region (N. Virginia) and account ID (postgres @ 1485-9483-0844). The left sidebar contains a navigation menu with categories like Virtual private cloud, Security, and Network Analysis. The main content area is titled 'Resources by Region' and shows a grid of resource counts for US East 1. A 'Service Health' section on the right indicates that Amazon EC2 - US East is operating normally. Below this, there are links for 'Settings' (Zones, Console Experiments) and 'Additional Information' (VPC Documentation, All VPC Resources, Forums, Report an Issue). The 'AWS Network Manager' section provides information about managing the Cloud WAN core network. The 'Site-to-Site VPN Connections' section explains how to connect resources within the AWS Cloud to on-premises locations using IPsec VPN connections.

Resources by Region Refresh Resources

Note: Your Instances will launch in the US East region.

You are using the following Amazon VPC resources

Resource	US East 1
VPCs	1
NAT Gateways	0
Subnets	6
VPC Peering Connections	0
Route Tables	1
Network ACLs	1
Internet Gateways	1
Security Groups	4
Egress-only Internet Gateways	0
Customer Gateways	0
DHCP option sets	1
Virtual Private Gateways	0
Elastic IPs	0
Site-to-Site VPN Connections	0
Endpoints	0
Running Instances	1

Service Health

Current Status	Details
Amazon EC2 - US East	Service is operating normally

[View complete service health details](#)

Settings

Zones
[Console Experiments](#)

Additional Information

[VPC Documentation](#)
[All VPC Resources](#)
[Forums](#)
[Report an Issue](#)

AWS Network Manager

AWS Network Manager centrally manages your Cloud WAN core network and your Transit Gateway network across AWS and on-premises locations. [Learn more](#)

[Get started with Network Manager](#)

Site-to-Site VPN Connections

Amazon VPC enables you to use your own isolated resources within the AWS Cloud, and then connect those resources directly to your own datacenter using industry-standard encrypted IPsec VPN connections.

The screenshot shows the 'Create VPC' wizard in the AWS Management Console. The wizard is divided into two main sections: 'VPC settings' and 'Preview'. The 'VPC settings' section includes options for 'Resources to create' (VPC only or VPC and more), 'Name tag auto-generation' (Auto-generate or No auto-generate), and 'IPv4 CIDR block' (10.0.0.0/16). The 'Preview' section shows a diagram of the VPC resources, including the VPC, subnets (us-east-1a and us-east-1b), and route tables (project-rtb-public, project-rtb-private1, project-rtb-private2). The diagram illustrates the connectivity between the VPC, subnets, and route tables.

Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances. Mouse over a resource to highlight the related resources.

Introducing the new create VPC experience

We've designed the new create VPC to make it easier to use. The changes include a new visualization of the resources that will be created. [Let us know what you think.](#)

VPC settings

Resources to create Info
Create only the VPC resource or the VPC and other networking resources.

☐ VPC only

☒ VPC and more

Name tag auto-generation Info
Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.

☒ Auto-generate

project

IPv4 CIDR block Info
Determine the starting IP and the size of your VPC using CIDR notation.

10.0.0.0/16 65,536 IPs

IPv6 CIDR block Info

☒ No IPv6 CIDR block

☐ Amazon-provided IPv6 CIDR block

Preview

VPC Show details
Your AWS virtual network

project-vpc

Subnets (4)
Subnets within this VPC

us-east-1a

project-subnet-public1-us-east-1a
project-subnet-private1-us-east-1a

us-east-1b

project-subnet-public2-us-east-1b
project-subnet-private2-us-east-1b

Route tables (3)
Route network traffic to

project-rtb-public
project-rtb-private1
project-rtb-private2

Services

Search for services, features, blogs, docs, and more

[Alt+S]

N. Virginia

postgres @ 1485-9483-0844

New VPC Experience

Tell us what you think

VPC dashboard

EC2 Global View

Filter by VPC:

Select a VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

Security

Network ACLs

Security groups

Network Analysis

You successfully created vpc-04333672ac7f21496 / my-vpc-01

VPC > Your VPCs > vpc-04333672ac7f21496

vpc-04333672ac7f21496 / my-vpc-01

Actions

Details

VPC ID

vpc-04333672ac7f21496

Tenancy

Default

Default VPC

No

Network Address Usage metrics

Disabled

State

Available

DHCP option set

dopt-0fb14ed9ab197a9ef

IPv4 CIDR

10.0.0.0/24

Route 53 Resolver DNS Firewall rule groups

-

DNS hostnames

Disabled

Main route table

rtb-0e53cffe6c62b7396

IPv6 pool

-

Owner ID

148594830844

DNS resolution

Enabled

Main network ACL

acl-0215a9f3b0317f3b8

IPv6 CIDR (Network border group)

-

CIDRs

Flow logs

Tags

CIDRs

Address type	CIDR	Network Border Group	Pool	Status
IPv4	10.0.0.0/24	-	-	Associated

Feedback

Looking for language selection? Find it in the new Unified Settings

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N. Virginia

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Network ACLs

Security groups

Network Analysis

Your VPCs (1/2)

Filter VPCs

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP
<input type="checkbox"/>	-	vpc-05e2e298980e61050	Available	172.31.0.0/16	-	dopt-0
<input checked="" type="checkbox"/>	my-vpc-01	vpc-04333672ac7f21496	Available	10.0.0.0/24	-	dopt-0

vpc-04333672ac7f21496 / my-vpc-01

Details

CIDRs

Flow logs

Tags

Details

VPC ID

vpc-04333672ac7f21496

Tenancy

Default

State

Available

DHCP option set

dopt-0fb14ed9ab197a9ef

DNS hostnames

Disabled

Main route table

rtb-0e53cffe6c62b7396

DNS resolution

Enabled

Main network ACL

acl-0215a9f3b0317f3b8

Feedback

Looking for language selection? Find it in the new Unified Settings

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Privacy

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3:40 PM

64%



ole.aws.amazon.com



2



Services



More ▾



DynamoDB > Tables

✓ The table1 table was created successfully.



Tables (1)



Actions ▾

Delete

Create table

Find tables by table name

Any table tag ▾



1



Na... ▲

Status

Partition key



table1

✓ Active

tablekey (N)

3:40 PM

64%



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2



Services



More ▾



DynamoDB > Tables

Tables (1)



Actions ▾

Delete

Create table

Find tables by table name

Any table tag ▾



1



Na... ▲

Status

Partition k



table1

Creating

tablekey (N

Database options, encryption turned on, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned off.

Estimated monthly costs

The Amazon RDS Free Tier is available to you for 12 months. Each calendar month, the free tier will allow you to use the Amazon RDS resources listed below for free:

- 750 hrs of Amazon RDS in a Single-AZ db.t2.micro, db.t3.micro or db.t4g.micro Instance.
- 20 GB of General Purpose Storage (SSD).
- 20 GB for automated backup storage and any user-initiated DB Snapshots.

[Learn more about AWS Free Tier](#)

When your free usage expires or if your application use exceeds the free usage tiers, you simply pay standard, pay-as-you-go service rates as described in the [Amazon RDS Pricing page](#).

Your request to create DB instance ahmed didn't work.

User: arn:aws:sts::680214387339:assumed-role/voclabs/user2227800=11136682672 is not authorized to perform: rds:CreateDBInstance on resource: arn:aws:rds:us-east-1:680214387339:db:ahmed because no identity-based policy allows the rds:CreateDBInstance action

You are responsible for ensuring that you have all of the necessary rights for any third-party products or services that you use with AWS services.

[Cancel](#) [Create database](#)