

AWS PROJECT-1

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) cloud. Using Amazon EC2 eliminates your need to invest in hardware up front so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic. Problem Statement: Company ABC wants to move their product to AWS. They have the following things set up right now:

1. MySQL DB
 2. Website (PHP)
- The company wants high availability on this product, therefore wants Auto Scaling to be enabled on this website. Steps To Solve:
1. Launch an EC2 Instance
 2. Enable Auto Scaling on these instances (minimum 2)
 3. Create an RDS Instance
 4. Create Database & Table in RDS instance:
 - a. Database name: intel
 - b. Table name: data
 - c. Database password: intel123
 5. Change hostname in website
 6. Allow traffic from EC2 to RDS instance and Allow all-traffic to EC2 instance

Solution:

I've Created the VPC first

The screenshot shows the 'Create VPC' wizard. In the 'VPC settings' section, 'VPC only' is selected. A name tag 'my-vpc-01' is specified. IPv4 CIDR is set to '11.11.0.0/16'. In the 'IPv6 CIDR block' section, 'No IPv6 CIDR block' is chosen. Under 'Tenancy', 'Default' is selected. The 'Tags' section is present but empty.

The screenshot shows the 'Subnet settings' wizard. For 'Subnet 1 of 1', the 'Subnet name' is 'Public -1'. The 'Availability Zone' is 'US East (N. Virginia) / us-east-1a'. The 'IPv4 VPC CIDR block' is '11.11.0.0/16'. The 'IPv4 subnet CIDR block' is '11.11.1.0/24'. In the 'Tags - optional' section, a tag 'Name: Public -1' is added. The 'Create subnet' button is at the bottom.

Subnet 2 of 3

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
 The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block [Info](#)
Choose the IPv4 VPC CIDR block to create a subnet in.

IPv4 subnet CIDR block
 256 IPs
< > ^ v

Tags - optional

Key	Value - optional
<input type="text" value="Name"/> X	<input type="text" value="Public-2"/> X

[Add new tag](#)
You can add 49 more tags.
[Remove](#)

Subnet 3 of 3

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
 The name can be up to 256 characters long.

[Availability Zone](#) [Info](#)

[CloudShell](#) [Feedback](#)

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Subnet 3 of 3

Subnet name
Create a tag with a key of 'Name' and a value that you specify.
 The name can be up to 256 characters long.

Availability Zone [Info](#)
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

IPv4 VPC CIDR block [Info](#)
Choose the IPv4 VPC CIDR block to create a subnet in.

IPv4 subnet CIDR block
 256 IPs
< > ^ v

Tags - optional

Key	Value - optional
<input type="text" value="Name"/> X	<input type="text" value="Private-1"/> X

[Add new tag](#)
You can add 49 more tags.
[Remove](#)

[Add new subnet](#)

[Cancel](#) [Create subnet](#)

[CloudShell](#) [Feedback](#)

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Screenshot of the AWS VPC Create internet gateway settings page.

Internet gateway settings

Name tag: Project - 1

Tags - optional

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - optional
Q Name	Q Project - 1

Add new tag

You can add 49 more tags.

Cancel **Create internet gateway**

Screenshot of the AWS VPC Attach to VPC (igw-0be729739ddea2a39) page.

VPC

Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs

Attach the internet gateway to this VPC.

AWS Command Line Interface command

Cancel **Attach internet gateway**

Elastic IP address 3.218.198.170 (eipalloc-053538cb98e0ba1b5) allocated.

VPC > NAT gateways > Create NAT gateway

Create NAT gateway [Info](#)

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

NAT gateway settings

Name - *optional*
Create a tag with a key of 'Name' and a value that you specify.

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.

Connectivity type
Select a connectivity type for the NAT gateway.

Public

Private

Elastic IP allocation ID [Info](#)
Assign an Elastic IP address to the NAT gateway.

[Additional settings](#) [Info](#)

Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

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Elastic IP address 3.218.198.170 (eipalloc-053538cb98e0ba1b5) allocated.

VPC > Route tables > Create route table

Create route table [Info](#)

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - *optional*
Create a tag with a key of 'Name' and a value that you specify.

VPC
The VPC to use for this route table.

Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key	Value - <i>optional</i>
<input type="text" value="Name"/>	<input type="text" value="Second-Project"/> <input type="button" value="Remove"/>

[Add new tag](#)

You can add 49 more tags.

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Screenshot of the AWS VPC Route Tables page.

The left sidebar shows:

- VPC dashboard
- EC2 Global View (New)
- Filter by VPC: Select a VPC
- Virtual private cloud: Your VPCs (New), 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.
- DNS firewall: Rule groups, Domain lists.
- Network Firewall: Firewalls.

The main content area shows "Route tables (1/3) Info". A table lists route tables:

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC
-	rtb-09261d1d08069972f	-	-	Yes	vpc-095004743ec376ca7
default-project	rtb-0a41a99283f019df	-	-	Yes	vpc-04a38d64c51dc94c2
Second-Project	rtb-052403794692bcff	-	-	No	vpc-04a38d64c51dc94c2

Details for rtb-052403794692bcff / Second-Project:

Details tab selected. Route table ID: rtb-052403794692bcff, Main: No, Explicit subnet associations: -, Edge associations: -. VPC: vpc-04a38d64c51dc94c2, Owner ID: 974156156714.

Screenshot of the AWS VPC Edit routes page.

The left sidebar shows:

- VPC > Route tables > rtb-052403794692bcff > Edit routes

The main content area shows "Edit routes".

Destination	Target	Status	Propagated
11.11.0.0/16	Q local X Active No		
Q 0.0.0.0/0	Q nat-0980e538b545acb9ef X - No Remove		

Add route button, Preview, Save changes buttons.

aws Services Search [Alt+S]

VPC > Route tables > rtb-052403794692bcfff > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/3)					
	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input type="checkbox"/>	Public-2	subnet-095c00f1d241e3eaf	11.11.2.0/24	-	rtb-0a414a99283f019df / default-project
<input type="checkbox"/>	Public -1	subnet-0db2705f49f2f5069	11.11.1.0/24	-	Main (rtb-0a414a99283f019df / default-project)
<input checked="" type="checkbox"/>	Private-1	subnet-0ca63ebda9c1ac808	11.11.3.0/24	-	rtb-0a414a99283f019df / default-project

Selected subnets

subnet-0ca63ebda9c1ac808 / Private-1	X
--------------------------------------	---

Save associations

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aws Services Search [Alt+S]

VPC dashboard X

EC2 Global View New

Filter by VPC: Select a VPC

Virtual private cloud Your VPCs New 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

DNS firewall Rule groups Domain lists

Network Firewall Firewalls

CloudShell Feedback

Route tables (1/3) Info

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC
-	rtb-09261d1d08069972f	-	-	Yes	vpc-095004743ec376ca7
default-project	rtb-0a414a99283f019df	2 subnets	-	Yes	vpc-04a38d64c51dc94c2
<input checked="" type="checkbox"/> Second-Project	rtb-052403794692bcfff	subnet-0ca63ebda9c1ac8...	-	No	vpc-04a38d64c51dc94c2

rtb-052403794692bcfff / Second-Project

Details | Routes | **Subnet associations** | Edge associations | Route propagation | Tags

Explicit subnet associations (1)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
Private-1	subnet-0ca63ebda9c1ac808	11.11.3.0/24	-

Subnets without explicit associations (0)

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
No subnets without explicit associations			

All your subnets are associated with a route table.

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VPC dashboard

EC2 Global View **New**

Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs **New**

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IP

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

Security

Network ACLs

Security groups

DNS firewall

Rule groups

Domain lists

Network Firewall

Firewalls

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Route tables (1/3) Info

Find resources by attribute or tag

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC
default-project	rtb-0a414a99283f019df	2 subnets	-	Yes	vpc-095004743ec376ca7
Second-Project	rtb-052405794692bcff	subnet-0ca363ebda9c1ac8...	-	No	vpc-04a38d64c51dc94c2

rtb-0a414a99283f019df / default-project

Details | Routes | **Subnet associations** | Edge associations | Route propagation | Tags

Explicit subnet associations (2)

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
Public-2	subnet-095c0fd1d241e3eaf	11.11.2.0/24	-
Public -1	subnet-0db2705f49f2f5069	11.11.1.0/24	-

Subnets without explicit associations (0)

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Find subnet association

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
------	-----------	-----------	-----------

No subnets without explicit associations

All your subnets are associated with a route table.

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Create security group **Info**

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name **Info**

SG-Project

Name cannot be edited after creation.

Description **Info**

SG-Project

VPC **Info**

vpc-04a38d64c51dc94c2

Inbound rules **Info**

Type	Protocol	Port range	Source	Description - optional
All traffic	All	All	Anywhere	0.0.0.0/0

Add rule

⚠ Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Outbound rules **Info**

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The screenshot shows the AWS VPC dashboard. On the left, there's a sidebar with navigation links for VPC components like Subnets, Route tables, Internet gateways, and Security groups. The main panel displays a "Details" section for a VPC with ID `vpc-04a38d64c51dc94c2`, which is currently **Available**. It also lists DHCP option sets, IPv4 CIDR ranges (11.11.0.0/16), and network address usage metrics. Below this is a "Resource map" section showing a hierarchical network structure. A tooltip indicates that the "map helpful" feature is often used for improving network visibility. The resource map includes sections for Subnets (3), Route tables (2), and Network connections (2).

I have created the instance for the Web application.

The screenshot shows the "Launch an instance" step of the AWS EC2 Instances creation wizard. In the "Name and tags" section, the instance is named "bastion-Project". The "Application and OS Images (Amazon Machine Image)" section shows a search bar and a list of available AMIs, including "Ubuntu Server 22.04 LTS (HVM), SSD Volume Type". The "Summary" section on the right provides a quick overview of the instance configuration, including the number of instances (1), software image (Canonical, Ubuntu, 22.04 LTS), virtual server type (t2.micro), firewall (SG-Project), and storage (1 volume(s) - 8 GiB). A callout box highlights the "Free tier" information, stating that the first year includes 750 hours of t2.micro usage. At the bottom, there are "Cancel", "Launch Instance", and "Review commands" buttons.

EC2 Services Search [Alt+S] N. Virginia Vaiteeswari CR Additional costs apply for AMIs with pre-installed software

Key pair (login) Info You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required Db_key Create new key pair

Network settings Info VPC - required Info vpc-04a38d64c51dc94c2 (Project-1) 11.11.0.0/16 Create new subnet

Subnet Info subnet-0db2705f49f2f5069 Public -1 VPC: vpc-04a38d64c51dc94c2 Owner: 974156156714 Availability Zone: us-east-1a IP addresses available: 250 CIDR: 11.11.0.0/16 Create new subnet

Auto-assign public IP Info Enable

Firewall (security groups) Info A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group Select existing security group

Common security groups Info Select security groups SG-Project sg-04170892df81d71d6 X VPC: vpc-04a38d64c51dc94c2 Compare security group rules

Summary Number of instances Info 1 Software Image (AMI) Canonical, Ubuntu, 22.04 LTS, ...read more ami-053b0d53c279acc90 Virtual server type (instance type) t2.micro Firewall (security group) SG-Project Storage (volumes) 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

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EC2 Services Search [Alt+S] N. Virginia Vaiteeswari CR following the simple steps below.

Name and tags Info Name Application Server -Project Add additional tags

Application and OS Images (Amazon Machine Image) Info An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Search our full catalog including 1000s of application and OS images

Quick Start

Amazon Linux macOS Ubuntu Windows Red Hat SUSE Linux SUSE Linux

Browse more AMIs Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Ubuntu Server 22.04 LTS (HVM), SSD Volume Type ami-053b0d53c279acc90 (64-bit (x86)) / ami-0a0c8eebcdd6dcbd0 (64-bit (Arm)) Virtualization: hvm ENA enabled: true Root device type: ebs

Description Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-05-16

Architecture AMI ID

Summary Number of instances Info 1 Software Image (AMI) Canonical, Ubuntu, 22.04 LTS, ...read more ami-053b0d53c279acc90 Virtual server type (instance type) t2.micro Firewall (security group) SG-Project Storage (volumes) 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Launch instance Review commands

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before you launch the instance.

Key pair name - required
Db_key

Network settings Info

VPC - required Info
vpc-04a38d64c51dc94c2 (Project-1)
11.11.0.0/16

Subnet info
subnet-095c00f1d241e3eaf Public-2
VPC: vpc-04a38d64c51dc94c2 Owner: 974156156714 Availability Zone: us-east-1b IP addresses available: 251 CIDR: 11.11.2.0/24

Auto-assign public IP Info

Firewall (security groups) Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Common security groups Info
Select security groups
SG-Project sg-04170892df81d71d6 X
VPC: vpc-04a38d64c51dc94c2

Security groups that you add or remove here will be added to or removed from all your network interfaces.

Advanced network configuration

Configure storage Info Advanced

Number of instances Info
1

Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-053b0d53c279acc90

Virtual server type (instance type)
t2.micro

Firewall (security group)
SG-Project

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel Review commands

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RDS > Create database

Create database

Choose a database creation method Info

Standard create You set all of the configuration options, including ones for availability, security, backups, and maintenance.

Easy create Use recommended best-practice configurations. Some configuration options can be changed after the database is created.

Engine options

Engine type Info

- Aurora (MySQL Compatible) 
- Aurora (PostgreSQL Compatible) 
- MySQL 
- MariaDB 
- PostgreSQL 
- Oracle 
- Microsoft SQL Server 

MySQL

MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.

- Supports database size up to 64 TiB.
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.

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Engine Version
MySQL 8.0.33

Templates
Choose a sample template to meet your use case.

Production
Use defaults for high availability and fast, consistent performance.

Dev/Test
This instance is intended for development use outside of a production environment.

Free tier
Use RDS Free Tier to develop new applications, test existing applications, or gain hands-on experience with Amazon RDS.

Availability and durability

Deployment options [Info](#)
The deployment options below are limited to those supported by the engine you selected above.

- Multi-AZ DB Cluster - new**
Creates a DB cluster with a primary DB instance and two readable standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy and increases capacity to serve read workloads.
- Multi-AZ DB Instance (not supported for Multi-AZ DB cluster snapshot)**
Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.
- Single DB Instance (not supported for Multi-AZ DB cluster snapshot)**
Creates a single DB instance with no standby DB instances.

Settings

DB instance identifier [Info](#)
Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

db-instance-identifier

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- Supports automated backup and point-in-time recovery.
- Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.

DB instance identifier [Info](#)
Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

Diya

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

Credentials Settings

Master username [Info](#)
Type a login ID for the master user of your DB instance.

admin

1 to 16 alphanumeric characters. The first character must be a letter.

Manage master credentials in AWS Secrets Manager
Manage master user credentials in Secrets Manager. RDS can generate a password for you and manage it throughout its lifecycle.

If you manage the master user credentials in Secrets Manager, some RDS features aren't supported. [Learn more](#)

Auto generate a password
Amazon RDS can generate a password for you, or you can specify your own password.

Master password [Info](#)

Constraints: At least 8 printable ASCII characters. Can't contain any of the following: / (slash), '(single quote), "(double quote) and @ (at sign).

Confirm master password [Info](#)

Instance configuration

The DB instance configuration options below are limited to those supported by the engine that you selected above.

Amazon RDS Optimized Writes - new [Info](#)

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MySQL

MySQL is the most popular open source database in the world. MySQL on RDS offers the rich features of the MySQL community edition with the flexibility to easily scale compute resources or storage capacity for your database.

- Supports database size up to 64 TiB.
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.

The screenshot shows the AWS RDS MySQL configuration page. It includes sections for Monitoring (checkbox for Enhanced monitoring), Additional configuration (Database options like Initial database name 'Info' and DB parameter group 'default.mysql8.0'), and Backup (checkbox for Enable automated backups). A note states that automated backups are supported for InnoDB only. The page also shows the Option group 'default:mysql-8-0'.

MySQL

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- Supports database size up to 64 TiB.
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.

The screenshot shows the AWS RDS MySQL configuration page. It includes sections for Compute resource (radio buttons for 'Don't connect to an EC2 compute resource' and 'Connect to an EC2 compute resource'), Virtual private cloud (VPC) (radio button for 'Project-1 (vpc-04a38d64c51dc94c2)'), and Public access (radio buttons for 'Yes' and 'No'). A note states that after a database is created, its VPC cannot be changed.

MySQL

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- Supports database size up to 64 TiB.
- Supports General Purpose, Memory Optimized, and Burstable Performance instance classes.
- Supports automated backup and point-in-time recovery.
- Supports up to 15 Read Replicas per instance, within a single Region or 5 read replicas cross-region.

Create bucket

Buckets are containers for data stored in S3. [Learn more](#)

General configuration

Bucket name: Bucket name must be unique within the global namespace and follow the bucket naming rules. [See rules for bucket naming](#)

AWS Region:

Copy settings from existing bucket - optional
Only the bucket settings in the following configuration are copied.

Object Ownership

Control ownership of objects written to this bucket from other AWS accounts and the use of access control lists (ACLs). Object ownership determines who can specify access to objects.

ACLs disabled (recommended)
All objects in this bucket are owned by this account. Access to this bucket and its objects is specified using only policies.

ACLs enabled
Objects in this bucket can be owned by other AWS accounts. Access to this bucket and its objects can be specified using ACLs.

Warning: We recommend disabling ACLs, unless you need to control access for each object individually or to have the object writer own the data they upload. Using a bucket policy instead of ACLs to share data with users outside of your account simplifies permissions management and auditing.

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EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline

Upload Info

Add the files and folders you want to upload to S3. To upload a file larger than 160GB, use the AWS CLI, AWS SDK or Amazon S3 REST API. [Learn more](#)

Drag and drop files and folders you want to upload here, or choose Add files or Add folder.

Files and folders (1 Total, 59.0 B)
All files and folders in this table will be uploaded.

	Name	Folder	Type	Size
	index.html	-	text/html	59.0 B

Destination

Destination
[s3://s3project01](#)

▼ Destination details
Bucket settings that impact new objects stored in the specified destination.

Bucket Versioning	Default encryption type	Object Lock
When enabled, multiple variants of an object can be stored in the bucket to easily recover from unintended user actions and application failures. Learn more	If an encryption type isn't specified, bucket settings for default encryption are used to encrypt objects when storing them in Amazon S3. Learn more	When enabled, objects in this bucket might be prevented from being deleted or overwritten for a fixed amount of time or indefinitely. Learn more
Disabled	Server-side encryption with Amazon S3 managed keys (SSE-S3)	Disabled

Enable Bucket Versioning

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EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline

Amazon S3

Successfully edited static website hosting.

Object Lock
Store objects using a write-once-read-many (WORM) model to help you prevent objects from being deleted or overwritten for a fixed amount of time or indefinitely. [Learn more](#)

Object Lock
Disabled

Amazon S3 currently does not support enabling Object Lock after a bucket has been created. To enable Object Lock for this bucket, contact [Customer Support](#).

Requester pays
When enabled, the requester pays for requests and data transfer costs, and anonymous access to this bucket is disabled. [Learn more](#)

Requester pays
Disabled

Static website hosting
Use this bucket to host a website or redirect requests. [Learn more](#)

Static website hosting
Enabled
Hosting type
Bucket hosting

Bucket website endpoint
When you configure your bucket as a static website, the website is available at the AWS Region-specific website endpoint of the bucket. [Learn more](#)

<http://s3project01.s3-website-us-east-1.amazonaws.com>

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CloudShell Feedback

AWS Services Search [Alt+S] N. Virginia VaiTheeswari CR

Create table

Table details Info

DynamoDB is a schemaless database that requires only a table name and a primary key when you create the table.

Table name

This will be used to identify your table.

Between 3 and 255 characters, containing only letters, numbers, underscores (_), hyphens (-), and periods (.)

Partition key

The partition key is part of the table's primary key. It is a hash value that is used to retrieve items from your table and allocate data across hosts for scalability and availability.

1 to 255 characters and case sensitive.

Sort key - optional

You can use a sort key as the second part of a table's primary key. The sort key allows you to sort or search among all items sharing the same partition key.

1 to 255 characters and case sensitive.

Table settings

Default settings The fastest way to create your table. You can modify these settings now or after your table has been created.

Customize settings Use these advanced features to make DynamoDB work better for your needs.

Default table settings

These are the default settings for your new table. You can change some of these settings after creating the table.

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Route 53

solutioninfo.in was successfully created. Now you can create records in the hosted zone to specify how you want Route 53 to route traffic for your domain.

Route 53 > Hosted zones > solutioninfo.in

Public solutioninfo.in Info Delete zone Test record Configure query logging

Hosted zone details Edit hosted zone

Records (2) Info

Automatic mode is the current search behavior optimized for best filter results. To change modes go to settings.

Create record Import zone file

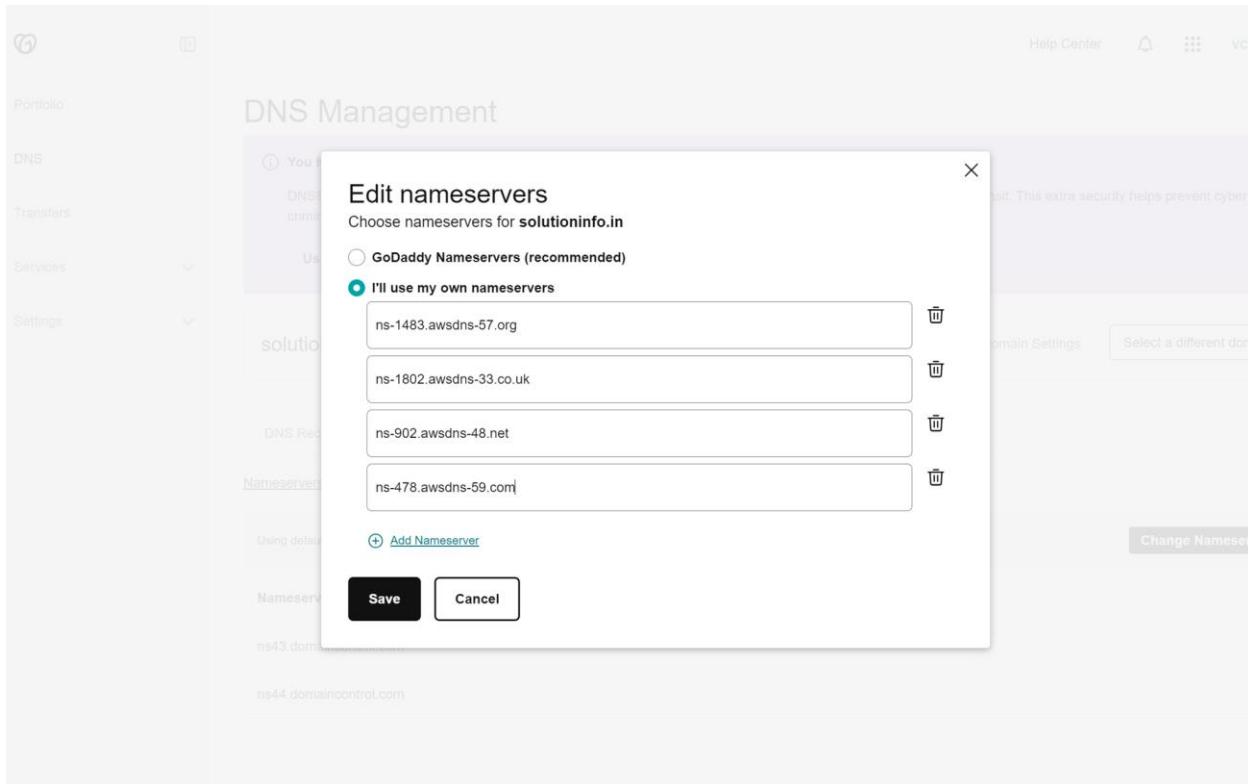
Record ...	Type	Routing policy	Alias	Value/Route traffic to
solutionin...	NS	Simple	-	No ns-1483.awsdns-57.org. ns-1802.awsdns-33.co.uk. ns-902.awsdns-48.net. ns-478.awsdns-59.com.
solutionin...	SOA	Simple	-	No ns-1483.awsdns-57.org. aw

0 records selected Select a record to see its details

Dashboard Hosted zones Health checks IP-based routing CDR collections Traffic flow Traffic policies Policy records Domains Registered domains Requests Resolver VPCs Inbound endpoints Outbound endpoints Rules Query logging Outposts DNS Firewall Application Recovery Controller

Switch to old console

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The screenshot shows the AWS Load Balancer configuration interface. The top navigation bar includes 'EC2', 'IAM', 'VPC', 'S3', 'CloudFront', 'CloudFormation', 'WorkSpaces', 'CodeCommit', 'CodePipeline', 'RDS', and 'Route 53'. The main section is titled 'Basic configuration' and contains the following fields:

- Load balancer name:** 'Project-1 ALB' (maximum of 32 alphanumeric characters including hyphens allowed, but the name must not begin or end with a hyphen).
- Scheme:** 'Info' (Scheme can't be changed after the load balancer is created). The 'Internet-facing' option is selected, which routes requests from clients over the internet to targets. It requires a public subnet.
- IP address type:** 'Info' (Select the type of IP addresses that your subnets use). The 'IPv4' option is selected, which is recommended for internal load balancers.

The next section is titled 'Network mapping' and contains the following fields:

- VPC:** 'Info' (Select the virtual private cloud (VPC) for your targets or you can [create a new VPC](#). Only VPCs with an internet gateway are enabled for selection. The selected VPC can't be changed after the load balancer is created. To confirm the VPC for your targets, view your target groups.)
- Mappings:** 'Info' (Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection). The 'us-east-1a (use1-az2)' option is selected.

The screenshot shows the AWS VPC console with the 'Info' tab selected. A dropdown menu shows a single VPC entry: 'Project-1' with ID 'vpc-04a38d64c51dc94c2' and IP range '11.11.0.0/16'. Below this, the 'Mappings' section lists two Availability Zones: 'us-east-1a (use1-azz)' and 'us-east-1b (use1-az4)'. Each zone has a 'Subnet' dropdown showing 'subnet-0db2705f49f2f5069' and 'Public - 1' respectively. A warning message in a yellow box states: 'The selected subnet does not have a route to an internet gateway. This means that your load balancer will not receive internet traffic.' It also says: 'You can proceed with this selection; however, for internet traffic to reach your load balancer, you must update the subnet's route table in the [VPC console](#).'. At the bottom, there are links for CloudShell, Feedback, and a footer with copyright information.

Created the Elastic load balancer for the hosted zone.

The screenshot shows the AWS Load Balancer console. In the 'Security groups' section, a security group 'SG-Project' is selected, which is associated with VPC 'vpc-04a38d64c51dc94c2'. In the 'Listeners and routing' section, a new listener is being configured for port 80. The 'Protocol' is set to 'HTTP' and the 'Port' is '80'. The 'Default action' dropdown is set to 'Forward to' with the option 'Select a target group' and a 'Create target group' button below it. There is also a 'Remove' button. Below the listener configuration, there is a section for 'Listener tags - optional' with a note: 'Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.' A 'Add listener tag' button is available, along with a note: 'You can add up to 50 more tags.' At the bottom, there is a 'Add listener' button. The footer includes links for CloudShell, Feedback, and a footer with copyright information.

Application Load Balancer

- Accessible to Application Load Balancers only.

Target group name
Project-1 TG

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Protocol	Port
HTTP	: 80 1-65535

IP address type
Only targets with the indicated IP address type can be included in this target group.

IPv4
Each instance has a default network interface (eth0) that is assigned the primary private IPv4 address. The instance's primary private IPv4 address is the one that will be applied to the target.

IPv6
Each target you register must have an assigned primary IPv6 address. This is configured on the instances default network interface (eth0). [Learn more](#)

VPC
Select the VPC with the instances that you want to include in the target group. Only VPCs that support the IP address type selected above are available in this list.

Project-1 vpc-04a38d64c51dc94c2 IPv4: 11.11.0.0/16
--

Protocol version

HTTP1
Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.

HTTP2
Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.

gRPC

Feedback

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Create an accelerator to get static IP addresses and improve the performance and availability of your applications. [Additional charges apply](#)

Load balancer tags - optional
Consider adding tags to your load balancer. Tags enable you to categorize your AWS resources so you can more easily manage them. The 'Key' is required, but 'Value' is optional. For example, you can have Key = production-webserver, or Key = webserver, and Value = production.

Summary
Review and confirm your configurations. [Estimate cost](#)

Basic configuration Edit	Security groups Edit	Network mapping Edit	Listeners and routing Edit
Project-1 ALB <ul style="list-style-type: none"> Internet-facing IPv4 	SG-Project sg-04170892df81d71d6	VPC vpc-04a38d64c51dc94c2 Project-1 <ul style="list-style-type: none"> us-east-1a subnet-0db2705f49f2f5069 Public -1 us-east-1b subnet-095c00f1d241e3ef Public -2 	<ul style="list-style-type: none"> HTTP:80 defaults to Project-1TG
Add-on services Edit None	Tags Edit None		
Attributes			
<p>ⓘ Certain default attributes will be applied to your load balancer. You can view and edit them after creating the load balancer.</p>			

[Cancel](#) [Create load balancer](#)

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Project-1ALB

Details

Load balancer type Application	Status Active	VPC vpc-04a38d64c51dc94c2	IP address type IPv4
Scheme Internet-facing	Hosted zone Z35SXDOTRQ7X7K	Availability Zones subnet-0db2705f49f2f5069 us-east-1a (use1-az2) subnet-095c00f1d241e3ef us-east-1b (use1-az4)	Date created October 11, 2023, 22:44 (UTC+0:30)
Load balancer ARN arnaws:elasticloadbalancing:us-east-1:974156156714:loadbalancer/app/Project-1ALB/214b1bed2ea75252		DNS name Project-1ALB-1454270454.us-east-1.elb.amazonaws.com (A Record)	

Listeners and rules (1) Info

Protocol:Port	Default action	Rules	ARN	Security policy	Default SSL/TLS certificate
HTTP:80	Forward to target group • Project-1TG-1 (100%) • Group-level stickiness: Off	1 rule	ARN	Not applicable	Not applicable

Connect the bastion -project instance:

```
Welcome to Ubuntu 22.04.2 LTS (GNU/Linux 5.19.0-1025-aws x86_64)

 * Documentation: https://help.ubuntu.com
 * Management: https://landscape.canonical.com
 * Support: https://ubuntu.com/advantage

System information as of Thu Oct 12 16:16:56 UTC 2023

System load: 0.3341765625 Processes: 99
Usage of /: 20.8% of 7.57GB Users logged in: 0
Memory usage: 23% IPv4 address for eth0: 11.11.1.233
Swap usage: 0%

Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*-copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-11-11-1-233:~$
```

i-03e4bd8e5815ff125 (bastion-Project)
Public IPs: 34.227.108.67 Private IPs: 11.11.1.233

```
aws Services Search [Alt+S]
EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline RDS Route 53
GNU nano 6.2 config.py *
customhost = "diya.cttwo83nwoe.us-east-1.rds.amazonaws.com"
customuser = "admin"
custompass = "admin123"
customdb = "employeedatabase"
custombucket = "s3project01"
customregion = "us-east-1"

Help Write Out Where Is Cut Execute Location Undo Set Mark To Bracket Previous Back
Exit Read File Replace Paste Justify Go To Line Redo Copy Where Was Next Forward
```

```
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```

```
aws Services Search [Alt+S]
EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline RDS Route 53
https://ubuntu.com/aws/pro
Expanded Security Maintenance for Applications is not enabled.
60 updates can be applied immediately.
To see these additional updates run: apt list --upgradable
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

*** System restart required ***
Last login: Thu Oct 12 17:07:12 2023 from 11.11.1.233
ubuntu@ip-11-11-3-140:~$ ls
AWS-project
ubuntu@ip-11-11-3-140:~/AWS-project$ ls
EmpApp.py README.md __pycache__ config.py templates
ubuntu@ip-11-11-3-140:~/AWS-project$ nano config.py
ubuntu@ip-11-11-3-140:~/AWS-project$ python3 EmpApp.py
* Serving Flask app 'EmpApp' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
Traceback (most recent call last):
  File "/home/ubuntu/AWS-project/EmpApp.py", line 161, in <module>
    app.run(host='0.0.0.0',port=80,debug=True)
  File "/usr/lib/python3/dist-packages/flask/app.py", line 922, in run
    run_simple(t.cast(str, host), port, self, **options)
  File "/usr/lib/python3/dist-packages/werkzeug/serving.py", line 984, in run_simple
    s.bind(server_address)
PermissionError: [Errno 13] Permission denied
ubuntu@ip-11-11-3-140:~/AWS-project$ sudo python3 EmpApp.py
* Serving Flask app 'EmpApp' (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Running on all addresses.
  WARNING: This is a development server. Do not use it in a production deployment.
* Running on http://11.11.3.140:80/ (Press CTRL+C to quit)
* Restarting with stat
* Debugger is active!
* Debugger PIN: 633-396-849
```

```
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```

Created the Route53 Records for the ELB:

The screenshot shows the 'Create record' page in the AWS Route 53 console. The top navigation bar includes services like EC2, IAM, VPC, S3, CloudFront, CloudFormation, WorkSpaces, CodeCommit, CodePipeline, RDS, and Route 53. The main area is titled 'Create record' with a sub-section 'Quick create record'. It shows a record named 'subdomain' of type 'A' (IPv4) pointing to 'dualstack.Prrject-EmpApp-ALB-755567349.us-east-1.elb.amazonaws.com'. The 'Alias' option is selected. Routing policy is set to 'Simple routing'. A 'Yes' button is shown for evaluating target health. Buttons for 'Delete', 'Add another record', 'Cancel', and a prominent orange 'Create records' button are visible. A note at the top says 'Choose this method if you are confident in the process of creating records and know which options you need.' Another note says 'Choose this method if you need more explanations as you create your record.'

Created the IAM rule for the private instance:

The screenshot shows the 'Instances (1/2)' page in the AWS EC2 console. The left sidebar lists various EC2 features: New EC2 Experience, EC2 Dashboard, EC2 Global View, Events, Instances (selected), Instances Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images (AMIs, AMI Catalog), Elastic Block Store (Volumes, Snapshots, Lifecycle Manager), Network & Security (Security Groups, Elastic IPs, Placement Groups, Key Pairs, Network Interfaces). The main pane displays one instance: 'bastion-Project' (Instance ID: i-05e4bd8e5815ff125, State: Running, Type: t2.micro, Status: 2/2 checks passed). Below it is the 'Application Server ...' instance (Instance ID: i-0a7f63e710de33981, State: Running, Type: t2.micro, Status: 2/2 checks passed). The 'Actions' menu for the second instance includes options like Connect, View details, Manage instance state, Instance settings, Networking, Security (selected), Get Windows password, Image and templates, and Monitor and troubleshoot. The 'Details' tab for the second instance shows its configuration: Instance ID (i-0a7f63e710de33981), Public IPv4 address (11.11.3.140), Private IP4 addresses (11.11.3.140), Public IPv4 DNS, Hostname type (IP name: ip-11-11-3-140.ec2.internal), Private IP DNS name (ip-11-11-3-140.ec2.internal), Instance type (t2.micro), VPC ID (vpc-04a38d64c51dc94c2 (Project-1)), Subnet ID (subnet-0ca63ebda9c1ac808 (Private-1)), and Auto Scaling Group name. The bottom of the page includes links for CloudShell, Feedback, and copyright information: © 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences.

Screenshot of the AWS IAM Roles page.

Identity and Access Management (IAM)

Roles (4/8) Info

An IAM role is an identity you can create that has specific permissions with credentials that are valid for short durations. Roles can be assumed by entities that you trust.

Create role

Role name	Trusted entities	Last activity
AWSServiceRoleForApplicationAutoScaling_DynamoDBTable	AWS Service: dynamodb.application	34 minutes ago
AWSServiceRoleForElasticLoadBalancing	AWS Service: elasticloadbalancing (S)	44 minutes ago
AWSServiceRoleForGlobalAccelerator	AWS Service: globalaccelerator (Serv)	-
AWSServiceRoleForRDS	AWS Service: rds (Service-Linked Rol)	19 minutes ago
AWSServiceRoleForSupport	AWS Service: support (Service-Linker)	-
AWSServiceRoleForTrustedAdvisor	AWS Service: trustedadvisor (Service)	-
rds-monitoring-role	AWS Service: monitoring.rds	-
rds-proxy-role-1697133708410	AWS Service: rds	19 minutes ago

Roles Anywhere Info

Authenticate your non AWS workloads and securely provide access to AWS services.

Access AWS from your non AWS workloads

Operate your non AWS workloads using the same authentication and authorization strategy that you use within AWS.

X.509 Standard

Use your own existing PKI infrastructure or use [AWS Certificate Manager Private Certificate Authority](#) to authenticate identities.

Temporary credentials

Use temporary credentials with ease and benefit from the enhanced security they provide.

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EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline RDS Route 53

IAM > Roles > Create role

Step 1 Select trusted entity

Step 2 Add permissions

Step 3 Name, review, and create

Select trusted entity

Trusted entity type

- AWS service Allow AWS services like EC2, Lambda, or others to perform actions in this account.
- AWS account Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.
- Web identity Allows users federated by the specified external web identity provider to assume this role to perform actions in this account.
- SAML 2.0 federation Allow users federated with SAML 2.0 from a corporate directory to perform actions in this account.
- Custom trust policy Create a custom trust policy to enable others to perform actions in this account.

An AWS account

Allow entities in other AWS accounts belonging to you or a 3rd party to perform actions in this account.

- This account (974156156714)
- Another AWS account

Options

- Require external ID (Best practice when a third party will assume this role)
- Require MFA Requires that the assuming entity use multi-factor authentication.

Cancel Next

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EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline RDS Route 53

Add permissions

Role details

Step 3 Name, review, and create

Role name Enter a meaningful name to identify this role. Project-role Maximum 64 characters. Use alphanumeric and '+=_@-' characters.

Description Add a short explanation for this role. Allows EC2 instances to call AWS services on your behalf. Maximum 1000 characters. Use alphanumeric and '+=_@-' characters.

Step 1: Select trusted entities

Trust policy

```

1: {
2:   "Version": "2012-10-17",
3:   "Statement": [
4:     {
5:       "Effect": "Allow",
6:       "Action": [
7:         "sts:AssumeRole"
8:       ],
9:       "Principal": [
10:         "Service": [
11:           "ec2.amazonaws.com"
12:         ]
13:       ]
14:     }
15:   ]
16: }

```

Step 2: Add permissions

Permissions policy summary

Policy name	Type	Attached as
-------------	------	-------------

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EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline RDS Route 53

EC2 Instances i-0a7f63e710de33981 Modify IAM role

Modify IAM role [Info](#)

Attach an IAM role to your instance.

Instance ID
i-0a7f63e710de33981 (Application Server -Project)

IAM role
Select an IAM role to attach to your instance or create a new role if you haven't created any. The role you select replaces any roles that are currently attached to your instance.

Project-role [Create new IAM role](#)

Cancel [Update IAM role](#)

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Employee Database

GET EMPLOYEE INFORMATION

Employee ID:

First Name:

Last Name:

Primary Skills:

Location:

Image: Choose File No file chosen

UPDATE DATABASE

[ABOUT US](#)

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```
11.11.3.145 - - [16/Oct/2023 16:13:48] "GET / HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:14:11] "GET / HTTP/1.1" 200 -
11.11.3.145 - - [16/Oct/2023 16:14:18] "GET / HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:14:40] "POST /addemp HTTP/1.1" 500 -
[traceback (most recent call last):
  File "/usr/lib/python3/dist-packages/flask/app.py", line 2088, in __call__
    return self.wsgi_app(environ, start_response)
  File "/usr/lib/python3/dist-packages/flask/app.py", line 2073, in wsgi_app
    response = self.handle_exception(e)
  File "/usr/lib/python3/dist-packages/flask/app.py", line 2070, in wsgi_app
    response = self.full_dispatch_request()
  File "/usr/lib/python3/dist-packages/flask/app.py", line 1515, in full_dispatch_request
    rv = self.handle_user_exception(e)
  File "/usr/lib/python3/dist-packages/flask/app.py", line 1513, in full_dispatch_request
    rv = self.dispatch_request()
  File "/usr/lib/python3/dist-packages/flask/app.py", line 1499, in dispatch_request
    return self.ensure_sync(self.view_functions[rule.endpoint])(**req.view_args)
  File "/home/ubuntu/AWS-project/BmpApp.py", line 54, in AddBmp
    cursor.execute(insert_sql,(emp_id, first_name, last_name, pri_skill, location))
  File "/usr/lib/python3/dist-packages/pymysql/cursors.py", line 148, in execute
    result = self._query(query)
  File "/usr/lib/python3/dist-packages/pymysql/cursors.py", line 310, in _query
    conn.query(q)
  File "/usr/lib/python3/dist-packages/pymysql/connections.py", line 548, in query
    self._affected_rows = self._read_query_result(unbuffered=unbuffered)
  File "/usr/lib/python3/dist-packages/pymysql/connections.py", line 775, in _read_query_result
    result.read()
  File "/usr/lib/python3/dist-packages/pymysql/connections.py", line 1156, in read
    first_packet = self.connection._read_packet()
  File "/usr/lib/python3/dist-packages/pymysql/connections.py", line 725, in _read_packet
    packet.raise_for_error()
  File "/usr/lib/python3/dist-packages/pymysql/protocol.py", line 221, in raise_for_error
    err.raise_mysql_exception(self._data)
  File "/usr/lib/python3/dist-packages/pymysql/err.py", line 143, in raise_mysql_exception
    raise errorclass(errno, errval)

pymysql.err.ProgrammingError: (1146, "Table 'employeedatabase.employee' doesn't exist")
11.11.2.178 - - [16/Oct/2023 16:14:41] "GET /addemp?_debugger_=yes&cmd=resource&f=style.css HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:14:41] "GET /addemp?_debugger_=yes&cmd=resource&f=debugger.js HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:14:41] "GET / HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:14:41] "GET /addemp?_debugger_=yes&cmd=resource&f=console.png HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:14:42] "GET /addemp?_debugger_=yes&cmd=resource&f=console.png HTTP/1.1" 200 -
11.11.3.145 - - [16/Oct/2023 16:15:11] "GET / HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:15:18] "GET / HTTP/1.1" 200 -
11.11.3.145 - - [16/Oct/2023 16:15:41] "GET / HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:15:48] "GET / HTTP/1.1" 200 -
11.11.2.178 - - [16/Oct/2023 16:16:11] "GET / HTTP/1.1" 200 -
```

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aws Services Search [Alt+S]

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```
Welcome to Ubuntu 22.04.3 LTS (GNU/Linux 6.2.0-1013-aws x86_64)

* Documentation: https://help.ubuntu.com
* Management: https://landscape.canonical.com
* Support: https://ubuntu.com/advantage

System information as of Mon Oct 16 16:53:44 UTC 2023

System load: 0.0 Processes: 108
Usage of /: 32.6% of 7.57GB Users logged in: 1
Memory usage: 23% IPv4 address for eth0: 11.11.1.233
Swap usage: 0%

* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.

https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

3 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Mon Oct 16 16:30:41 2023 from 18.206.107.29
ubuntu@ip-11-11-1-233:~$ ls
lib.key.pem
ubuntu@ip-11-11-1-233:~$ mysql --version
mysql  Ver 8.0.34-0ubuntu0.22.04.1 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-11-11-1-233:~$ sudo mysql -h diya.ctswo83nme.us-east-1.rds.amazonaws.com -P 3306 -u admin -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 104
Server version: 8.0.33 Source distribution

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

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Employee Database

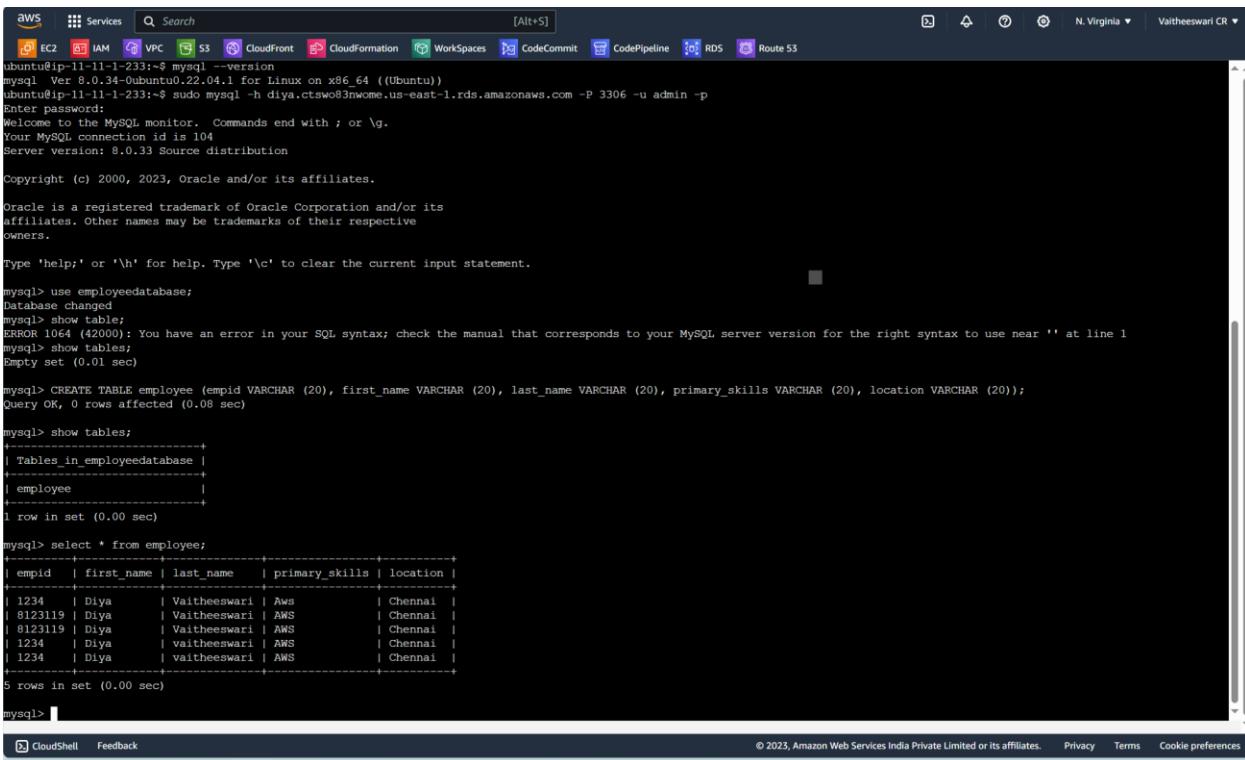
[GET EMPLOYEE INFORMATION](#)

Employee ID:	<input type="text" value="8123119"/>
First Name:	<input type="text" value="Diya"/>
Last Name:	<input type="text" value="Vaitheeswari"/>
Primary Skills:	<input type="text" value="AWS"/>
Location:	<input type="text" value="Chennai"/>

Image: [Choose File](#) WIN_20230..._29_Pro.jpg

[UPDATE DATABASE](#)

[ABOUT US](#)



```

aws Services Search [Alt+S] N. Virginia Vaitheeswari CR
EC2 IAM VPC S3 CloudFront CloudFormation WorkSpaces CodeCommit CodePipeline RDS Route 53

ubuntu@ip-11-11-1-233:~$ mysql --version
mysql Ver 8.0.34-0ubuntu0.22.04.1 for Linux on x86_64 ((Ubuntu))
ubuntu@ip-11-11-1-233:~$ sudo mysql -h diya.ctswo83nwoe.us-east-1.rds.amazonaws.com -P 3306 -u admin -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 104
Server version: 8.0.33 Source distribution

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use employeedatabase;
Database changed
mysql> show table;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 1
mysql> show tables;
Empty set (0.01 sec)

mysql> CREATE TABLE employee (empid VARCHAR (20), first_name VARCHAR (20), last_name VARCHAR (20), primary_skills VARCHAR (20), location VARCHAR (20));
Query OK, 0 rows affected (0.08 sec)

mysql> show tables;
+-----+
| Tables_in_employeedatabase |
+-----+
| employee |
+-----+
1 row in set (0.00 sec)

mysql> select * from employee;
+-----+-----+-----+-----+-----+
| empid | first_name | last_name | primary_skills | location |
+-----+-----+-----+-----+-----+
| 1234 | Diya | Vaitheeswari | Aws | Chennai |
| 8123119 | Diya | Vaitheeswari | Aws | Chennai |
| 8123119 | Diya | Vaitheeswari | Aws | Chennai |
| 1234 | Diya | vaitheeswari | Aws | Chennai |
| 1234 | Diya | vaitheeswari | Aws | Chennai |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql>

```

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GNU nano 6.2

```
color: #FFF;
box-shadow: 0 0 20px #eee;
border-radius: 20px;
width: 200px;
box-shadow: 0 1px 3px rgba(0,0,0,1), 0 1px 2px rgba(0,0,0,0.5);
display: inline-block;
border-radius: 20px;
}

</style>
<center>
<font color="white" size="4" style="font-family: Gadget">

    <h1 style="color: White">Employee Database</h1>

    <body bgcolor="lightgrey">

        <form action="/adddemp" autocomplete="on" method = "POST" enctype="multipart/form-data">

            <button type="submit" formaction="/getemp" style="background: grey; height: 45px; width: 200px; color:white; font-family: sans-serif; border-radius: 20px; border: none; font-size: 14pt; font-weight: bold; margin-bottom: 10px;">Get Employee</button>

            Employee ID:<br> <input style="height:24px;font-size:14pt; color:grey;" type="number" name="emp_id" autofocus size="40"><br><br>

            First Name:<br> <input style="height:24px;font-size:14pt;color:grey;" type="text" name="first_name" ><br><br>

            Last Name:<br> <input style="height:24px;font-size:14pt;color:grey;" type="text" name="last_name"><br><br>

            Primary Skills:<br> <input style="height:24px;font-size:14pt;color:grey;" type="text" name="pri_skill"><br><br>

            Location:<br> <input style="height:24px;font-size:14pt;color:grey;" type="text" name="location"><br><br>

            Image: <input type="file" name="emp_image_file" style="height:2nt-size:14pt;color:5px;"> <br><br>

            <button class="gradient-button" type="submit" style="background: grey; height: 45px; width: 200px; color: white; size: 5; font:oblique;">UPDATE DATA</button>

        </form>
<a href="http://s3project01.s3-website-us-east-1.amazonaws.com" class="gradient-b" type="submit" style="background: grey; height: 45px; width: 200px; color: black; size: 5; monospace">View Database</a>
    </body>
</font>
</center>
</html>
```

aws Services Search [Alt+S] N. Virginia ▾ Vaiteeswari CR

| EC2 | IAM | VPC | S3 | CloudFront | CloudFormation | WorkSpaces | CodeCommit | CodePipeline | RDS | Route 53

| 1234 | Diya | vaiteeswari | AWS | Chennai |

5 rows in set (0.00 sec)

mysql> select * from employee;

empid	first_name	last_name	primary_skills	location
1234	Diya	Vaiteeswari	Aws	Chennai
8123119	Diya	Vaiteeswari	AWS	Chennai
8123119	Diya	Vaiteeswari	AWS	Chennai
1234	Diya	Vaiteeswari	AWS	Chennai
1234	Diya	Vaiteeswari	AWS	Chennai
1234	Diya	Vaiteeswari	AWS	Chennai

6 rows in set (0.01 sec)

mysql> select * from employee;

empid	first_name	last_name	primary_skills	location
1234	Diya	Vaiteeswari	Aws	Chennai
8123119	Diya	Vaiteeswari	AWS	Chennai
8123119	Diya	Vaiteeswari	AWS	Chennai
1234	Diya	Vaiteeswari	AWS	Chennai
1234	Diya	Vaiteeswari	AWS	Chennai
1234	Diya	Vaiteeswari	AWS	Chennai

6 rows in set (0.00 sec)

mysql> delete empid * 1234;
-> delete empid *1234;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' 1234
delete empid *1234' at line 1
mysql> DELETE FROM employee WHERE empid="1234";
Query OK, 4 rows affected (0.01 sec)

mysql> select * from employee;

empid	first_name	last_name	primary_skills	location
8123119	Diya	Vaiteeswari	AWS	Chennai
8123119	Diya	Vaiteeswari	AWS	Chennai

2 rows in set (0.01 sec)

mysql> |