



AWS HomeWork

Sviatoslav Gritsaev

Create VPC

New VPC Experience
Tell us what you think

You successfully created vpc-08b156563b942208c / wp-vpc

vpc-08b156563b942208c / wp-vpc

Actions

Details Info

VPC ID vpc-08b156563b942208c	State Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy Default	DHCP options set dopt-0c243aa9d9f5890a9	Main route table rtb-079f36d9f956fddfa	Main network ACL acl-03da046fa92aa4362
Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool -	IPv6 CIDR (Network border group) -
Route 53 Resolver DNS Firewall rule groups -	Owner ID 376454072216		

CIDRs

Flow logs

Tags

CIDRs Info

Address type	CIDR	Network Border Group	Pool	Status
IPv4	10.0.0.0/16	-	-	Associated

VPC Dashboard
EC2 Global View New

Filter by VPC:

Select a VPC

VIRTUAL PRIVATE CLOUD

Your VPCs

Subnets

Route Tables

Internet Gateways

Egress Only Internet Gateways

Carrier Gateways

DHCP Options Sets

Elastic IPs

Managed Prefix Lists

Endpoints New

Endpoint Services

NAT Gateways

Peering Connections

SECURITY

Network ACLs

Security Groups

NETWORK ANALYSIS

Enable Dns hostnames

New VPC Experience
Tell us what you think

✓ DNS hostnames successfully updated.

VPC Dashboard

EC2 Global View **New**

Filter by VPC:

Q Select a VPC

▼ VIRTUAL PRIVATE CLOUD

Your VPCs

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DHCP Options Sets

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Managed Prefix Lists

Endpoints **New**

Endpoint Services

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Peering Connections

▼ SECURITY

Network ACLs

Security Groups

▼ NETWORK ANALYSIS

VPC > Your VPCs > vpc-08b156563b942208c

vpc-08b156563b942208c / wp-vpc

Actions ▼

Details Info

VPC ID

vpc-08b156563b942208c

Tenancy

Default

Default VPC

No

Route 53 Resolver DNS Firewall rule groups

-

State

✓ Available

DHCP options set

dopt-0c243aa9d9f5890a9

IPv4 CIDR

10.0.0.0/16

Owner ID

376454072216

DNS hostnames

Enabled

Main route table

rtb-079f36d9f956fddfa

IPv6 pool

-

DNS resolution

Enabled

Main network ACL

acl-03da046fa92aa4362

IPv6 CIDR (Network border group)

-

CIDRs

Flow logs

Tags

CIDRs Info

Address type ▲

CIDR

Network Border Group

Pool

Status

IPv4

10.0.0.0/16

-

-

✓ Associated

Create Internet Gateway for VPC

aws

Services

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Frankfurt

sg @ 3764-5407-2216

New VPC Experience
Tell us what you think

VPC Dashboard

EC2 Global View

Filter by VPC:
Select a VPC

VIRTUAL PRIVATE CLOUD

Your VPCs

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Security Groups

NETWORK ANALYSIS

Internet gateway igw-0043809a0e07a3252 successfully attached to vpc-08b156563b942208c

VPC > Internet gateways > Igw-0043809a0e07a3252

igw-0043809a0e07a3252 / wpc_igw

Actions

Details

Info

Internet gateway ID IgW-0043809a0e07a3252	State Attached	VPC ID vpc-08b156563b942208c wp-vpc	Owner 376454072216
----------------------------------------------	-------------------	------------------------------------------	-----------------------

Tags

Manage tags

Search tags

Key	Value
Name	wpc_igw

Feedback

English (US)

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Create route via IGW

VPC > Route tables > rtb-079f36d9f956fddfa > Edit routes

Edit routes

Destination	Target	Status	Propagated
10.0.0.0/16	<input type="text" value="local"/>	✓ Active	No
<input type="text" value="0.0.0.0/0"/>	<input type="text" value="igw-0043809a0e07a3252"/>	-	No <input type="button" value="Remove"/>
<input type="button" value="Add route"/>			

Create route via IGW

aws

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New VPC Experience

Tell us what you think

VPC Dashboard

EC2 Global View New

Filter by VPC:

Select a VPC

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Egress Only Internet Gateways

Carrier Gateways

DHCP Options Sets

Elastic IPs

Managed Prefix Lists

Endpoints New

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NETWORK ANALYSIS

Reachability Analyzer

Updated routes for rtb-079f36d9f956fddfa successfully

Details

VPC > Route tables > rtb-079f36d9f956fddfa

rtb-079f36d9f956fddfa

Actions

You can now check network connectivity with Reachability Analyzer

Run Reachability Analyzer

Details

Info

Route table ID

rtb-079f36d9f956fddfa

Main

Yes

Explicit subnet associations

-

Edge associations

-

VPC

vpc-08b156563b942208c | wp-vpc

Owner ID

376454072216

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Edit routes

Filter routes

Both

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No
0.0.0.0/0	igw-0043809a0e07a3252	Active	No

Feedback

English (US)

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Create 2 subnet in different regions

aws

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New VPC Experience

Tell us what you think

VPC Dashboard

EC2 Global View

Filter by VPC:

Select a VPC

VIRTUAL PRIVATE CLOUD

Your VPCs

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Carrier Gateways

DHCP Options Sets

Elastic IPs

Managed Prefix Lists

Endpoints

Endpoint Services

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Peering Connections

SECURITY

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Security Groups

NETWORK ANALYSIS

You have successfully created 2 subnets: subnet-007053753c9e0f3e3, subnet-042d9c65ed1642046

Subnets (2)

Info

Filter subnets

Subnet ID: subnet-007053753c9e0f3e3

Subnet ID: subnet-042d9c65ed1642046

Clear filters

Create subnet

	Name	Subnet ID	State	VPC	IPv4 CIDR	IPv6 CIDR	Available IPv4 addresses
<input type="checkbox"/>	subnet_1	subnet-007053753c9e0f3e3	Available	vpc-08b156563b942208c wp...	10.0.1.0/24	-	251
<input type="checkbox"/>	subnet_2	subnet-042d9c65ed1642046	Available	vpc-08b156563b942208c wp...	10.0.2.0/24	-	251

Select a subnet

Feedback

English (US)

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Terms

Cookie preferences

Create Security Group for EC2

Basic details

Security group name [Info](#)

Name cannot be edited after creation.

Description [Info](#)

VPC [Info](#)

Inbound rules [Info](#)

Type [Info](#)

Protocol [Info](#)

Port range [Info](#)

Source [Info](#)

Description - optional [Info](#)

Outbound rules [Info](#)

Type [Info](#)

Protocol [Info](#)

Port range [Info](#)

Destination [Info](#)

Description - optional [Info](#)

Create Security Group for RDS



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Frankfurt ▼

sg @ 3764-5407-2216 ▼

Basic details

Security group name [Info](#)

sg_rds

Name cannot be edited after creation.

Description [Info](#)

Security group for RDS

VPC [Info](#)

vpc-08b156563b942208c

Inbound rules

Type [Info](#)

Custom TCP ▼

Protocol [Info](#)

TCP

Port range [Info](#)

3306

Source [Info](#)

Custom ▼

Q

sg-0a6b34bc3b79cb987 X

Description - optional [Info](#)

Allow inbound MySQL traffic

Delete

Add rule

Outbound rules

Type [Info](#)

All traffic ▼

Protocol [Info](#)

All

Port range [Info](#)

All

Destination [Info](#)

Custom ▼

Q

10.0.0.0/16 X

Description - optional [Info](#)

Allow outbound traffic to VPC subnets

Delete

Add rule

Create Security Group for EFS



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sg @ 3764-5407-2216

Basic details

Security group name [Info](#)

sg_efs

Name cannot be edited after creation.

Description [Info](#)

Security group for EFS

VPC [Info](#)

vpc-08b156563b942208c

Inbound rules

Type [Info](#)

Custom TCP

Protocol [Info](#)

TCP

Port range [Info](#)

2049

Source [Info](#)

Custom



sg-0a6b34bc3b79cb987

Description - optional [Info](#)

Allow inbound NFS traffic

Delete

Add rule

Outbound rules

Type [Info](#)

All traffic

Protocol [Info](#)

All

Port range [Info](#)

All

Destination [Info](#)

Custom



10.0.0.0/16

Description - optional [Info](#)

Allow outbound traffic to VPC subnets

Delete

Add rule

Create Security Group for Load Balancer



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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_lb

Name cannot be edited after creation.

Description [Info](#)

Allows SSH access to developers

VPC [Info](#)

vpc-08b156563b942208c

Inbound rules

Type [Info](#)

Custom TCP

Protocol [Info](#)

TCP

Port range [Info](#)

80

Source [Info](#)

Anywhere-I...



0.0.0.0/0

Description - optional [Info](#)

Allow inbound HTTP traffic

Delete

Add rule

Outbound rules

Type [Info](#)

HTTP

Protocol [Info](#)

TCP

Port range [Info](#)

80

Destination [Info](#)

Custom



sg-0a6b34bc3b79cb987

Description - optional [Info](#)

Allow outbound HTTP traffic to EC2 instances

Delete

Add rule

Create EFS

Create file system

Create an EFS file system with service recommended settings. [Learn more](#)

Name - optional
Name your file system.

wp_efs

Name must not be longer than 256 characters, and must only contain letters, numbers, and these characters: + - . _ : /

Virtual Private Cloud (VPC)
Choose the VPC where you want EC2 instances to connect to your file system. [Learn more](#)

vpc-08b156563b942208c
wp-vpc

Availability and durability
Choose Regional (recommended) to create a file system using regional storage classes. Choose One Zone to create a file system using One Zone storage classes. [Learn more](#)

☒ **Regional**
Stores data redundantly across multiple AZs

☐ **One Zone**
Stores data redundantly within a single AZ

Cancel

Customize

Create

Create EFS

Elastic File System

File systems
Access points

AWS Backup
AWS DataSync
AWS Transfer

Documentation

Amazon EFS > File systems > fs-0594abbef20327926 > Network access

Availability zone

Virtual Private Cloud (VPC)

Choose the VPC where you want EC2 instances to connect to your file system. [Learn more](#)

vpc-08b156563b942208c
wp-vpc

You must delete all existing mount targets in order to change the VPC of your file system.

Mount targets

A mount target provides an NFSv4 endpoint at which you can mount an Amazon EFS file system. We recommend creating one mount target per Availability Zone. [Learn more](#)

Availability zone

eu-central-1a

Subnet ID

subnet-007053753c9e0f3e3

IP address

10.0.1.117

Security groups

Choose security groups

Remove

sg-0e3c9a77e8554a5ab
sg_efs

eu-central-1b

subnet-042d9c65ed1642046

10.0.2.66

Choose security groups

Remove

sg-0e3c9a77e8554a5ab
sg_efs

Add mount target

Cancel

Save

Create SubnetGroups for RDS

Amazon RDS ✕

- Dashboard
- Databases
- Query Editor
- Performance Insights
- Snapshots
- Automated backups
- Reserved instances
- Proxies

Subnet groups

- Parameter groups
- Option groups
- Custom engine versions

Events

Event subscriptions

Recommendations 0

Certificate update

add subnets related to that VPC.

Subnet group details

Name
You won't be able to modify the name after your subnet group has been created.

Must contain from 1 to 255 characters. Alphanumeric characters, spaces, hyphens, underscores, and periods are allowed.

Description

VPC
Choose a VPC identifier that corresponds to the subnets you want to use for your DB subnet group. You won't be able to choose a different VPC identifier after your subnet group has been created.


Add subnets


Availability Zones
Choose the Availability Zones that include the subnets you want to add.

Subnets
Choose the subnets that you want to add. The list includes the subnets in the selected Availability Zones.


Subnets selected (2)


Create RDS


 Services [Alt+S]





Engine type [Info](#)


☐ Amazon Aurora


☒ MySQL



☐ MariaDB


☐ PostgreSQL


☐ Oracle


☐ Microsoft SQL Server


Edition
☒ MySQL Community

 **Known Issues/limitations**
Review the [Known issues/limitations](#) to learn about potential compatibility issues with specific database versions.

Version
MySQL 8.0.27 ▼

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.
[Info](#)

Feedback English (US) ▼

Create RDS

Storage

Storage type [Info](#)

General Purpose SSD (gp2)

Baseline performance determined by volume size

Allocated storage

20

GiB

(Minimum: 20 GiB. Maximum: 16,384 GiB) Higher allocated storage **may improve** IOPS performance.

Storage autoscaling [Info](#)

Provides dynamic scaling support for your database's storage based on your application's needs.

☐ Enable storage autoscaling

Enabling this feature will allow the storage to increase once the specified threshold is exceeded.



Services



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[Alt+S]



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.

wp-db

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.

wpadm

1 to 16 alphanumeric characters. First character must be a letter.

☐ 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 password [Info](#)

DB instance class

DB instance class [Info](#)

☐ Standard classes (includes m classes)

☐ Memory optimized classes (includes r and x classes)

☒ Burstable classes (includes t classes)

db.t2.micro

1 vCPUs

1 GiB RAM

Not EBS Optimized



Include previous generation classes

Create RDS

▼ Additional configuration

Database options, backup enabled, backtrack disabled, Enhanced Monitoring disabled, maintenance, Cloud protection disabled.

Database options

Initial database name [Info](#)

wpdb

If you do not specify a database name, Amazon RDS does not create a database.

DB parameter group [Info](#)

default.mysql8.0

Option group [Info](#)

default:mysql-8-0

Backup

Connectivity



Virtual private cloud (VPC) [Info](#)

VPC that defines the virtual networking environment for this DB instance.

wp-vpc (vpc-08b156563b942208c)

Only VPCs with a corresponding DB subnet group are listed.

❗ After a database is created, you can't change its VPC.

Subnet group [Info](#)

DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

wp_db_sg

Public access [Info](#)

☐ Yes

Amazon EC2 instances and devices outside the VPC can connect to your database. Choose one or more VPC security groups that specify which EC2 instances and devices inside the VPC can connect to the database.

☒ No

RDS will not assign a public IP address to the database. Only Amazon EC2 instances and devices inside the VPC can connect to your database.

VPC security group

Choose a VPC security group to allow access to your database. Ensure that the security group rules allow the appropriate incoming traffic.

☒ Choose existing

Choose existing VPC security groups

☐ Create new

Create new VPC security group

Existing VPC security groups

Choose VPC security groups

sg_rds



Availability Zone [Info](#)

No preference

Create LoadBalancer

request attributes. When the load balancer receives a connection request, it evaluates the listener rules in priority order to determine which rule to apply, and if applicable, it selects a target from the target group for the rule action.

► How Application Load Balancers work

Basic configuration

Load balancer name

Name must be unique within your AWS account and cannot be changed after the load balancer is created.

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

Scheme [Info](#)

Scheme cannot be changed after the load balancer is created.

☒ Internet-facing

An internet-facing load balancer routes requests from clients over the internet to targets. Requires a public subnet. [Learn more](#) [↗](#)

☐ Internal

An internal load balancer routes requests from clients to targets using private IP addresses.

IP address type [Info](#)

Select the type of IP addresses that your subnets use.

☒ IPv4

Recommended for internal load balancers.

☐ Dualstack

Includes IPv4 and IPv6 addresses.

Includes IPv4 and IPv6 addresses.

Network mapping [Info](#)

The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC [Info](#)

Select the virtual private cloud (VPC) for your targets. Only VPCs with an internet gateway are enabled for selection. The selected VPC cannot be changed after the load balancer is created. To confirm the VPC for your targets, view your [target groups](#).

wp-vpc

vpc-08b156563b942208c

IPv4: 10.0.0.0/16



Mappings [Info](#)

Select at least one Availability Zone and one subnet for each zone. We recommend selecting at least two Availability Zones. The load balancer will route traffic only to targets in the selected Availability Zones. Zones that are not supported by the load balancer or VPC cannot be selected. Subnets can be added, but not removed, once a load balancer is created.

☒ eu-central-1a

Subnet

subnet-007053753c9e0f3e3

subnet_1 ▼

IPv4 settings

Assigned by AWS

☒ eu-central-1b

Subnet

subnet-042d9c65ed1642046

subnet_2 ▼

IPv4 settings

Assigned by AWS

Target Group

Health checks

The associated load balancer periodically sends requests, per the settings below, to the registered targets.

Health check protocol

HTTP ▼

Health check path

Use the default path of "/" to ping the root, or specify a custom path if preferred.

/wp-login.php

Up to 1024 characters allowed.

► Advanced health check settings

Settings in this section cannot be changed after the target group is created.

Choose a target type

☒ Instances

- Supports load balancing to instances within a specific VPC.
- Facilitates the use of [Amazon EC2 Auto Scaling](#) to manage and scale your EC2 capacity.

☐ IP addresses

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.
- Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.

☐ Lambda function

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

☐ Application Load Balancer

- Offers the flexibility for a Network Load Balancer to accept and route TCP requests within a specific VPC.
- Facilitates using static IP addresses and PrivateLink with an Application Load Balancer.

Target group name

lb-tg

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

Protocol

HTTP ▼

Port

: 80

VPC

Select the VPC with the instances that you want to include in the target group.

wp-vpc

vpc-08b156563b942208c
IPv4: 10.0.0.0/16

Assign target group to LB Listener

Listeners and routing [Info](#)

A listener is a process that checks for connection requests, using the protocol and port you configure. Traffic received by the listener is then routed per your specification. You can specify multiple rules and multiple certificates per listener after the load balancer is created.

▼ Listener HTTP:80

Remove

Protocol

HTTP ▼

:

Port

80

1-65535

Default action

[Info](#)

Forward to

lb-tg

Target type: Instance, IPv4

HTTP ▼

↻

[Create target group](#) [↗](#)

Add listener

Create EC2 Instances

1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review

Step 1: Choose an Amazon Machine Image (AMI)

[Cancel and Exit](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.

[Search by Systems Manager parameter](#)

Quick Start (7)

[My AMIs \(0\)](#)[AWS Marketplace \(1084\)](#)[Community AMIs \(28439\)](#)**Ubuntu Server 20.04 LTS (HVM), SSD Volume Type** - ami-0d527b8c289b4af7f (64-bit x86) / ami-0b168c89474ef4301 (64-bit Arm)Ubuntu Server 20.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).**Free tier eligible**

Root device type: ebs

Virtualization type: hvm

ENA Enabled: Yes

[Select](#)☒ 64-bit (x86)☐ 64-bit (Arm)

Step 2: Choose an Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. [Learn more](#) about instance types and how they can meet your computing needs.

Filter by: [All instance families](#) [Current generation](#) [Show/Hide Columns](#)

Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, ~, 1 GiB memory, EBS only)

	Family	Type	vCPUs ⓘ	Memory (GiB)	Instance Storage (GB) ⓘ	EBS-Optimized Available ⓘ	Network Performance ⓘ	IPv6 Support ⓘ
<input type="checkbox"/>	t2	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
<input checked="" type="checkbox"/>	t2	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
<input type="checkbox"/>	t2	t2.small	1	2	EBS only	-	Low to Moderate	Yes

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take

Details

You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower price

Number of instances  1 [Launch into Auto Scaling Group !\[\]\(e4a71fb14267cbc3c68a54ad33289c8f_img.jpg\)](#)

1 [Launch into Auto Scaling Group !\[\]\(0d7ca0919e6c47bbd874bfa0189fe22e_img.jpg\)](#)


Purchasing option  ☐ Request Spot instances

☐ Request Spot instances


Network  vpc-08b156563b942208c | wp-vpc  [Create new VPC](#)

vpc-08b156563b942208c | wp-vpc  [Create new VPC](#)

Subnet  subnet-007053753c9e0f3e3 | subnet_1 | eu-central-1  [Create new subnet](#)
248 IP Addresses available


subnet-042d9c65ed1642046 | subnet_2 | eu-central-1  [Create new subnet](#)
250 IP Addresses available

Auto-assign Public IP  Use subnet setting (Enable) 

Use subnet setting (Enable) 

Hostname type  Use subnet setting (IP name) 

Use subnet setting (IP name) 


DNS Hostname  ☒ Enable IP name IPv4 (A record) DNS requests
☒ Enable resource-based IPv4 (A record) DNS requests
☐ Enable resource-based IPv6 (AAAA record) DNS requests

☒ Enable IP name IPv4 (A record) DNS requests
☒ Enable resource-based IPv4 (A record) DNS requests
☐ Enable resource-based IPv6 (AAAA record) DNS requests

Placement group  ☐ Add instance to placement group

☐ Add instance to placement group

Capacity Reservation  Open 

Open 

Domain join directory  No directory  [Create new directory](#)


No directory  [Create new directory](#)

IAM role  None  [Create new IAM role](#)

None  [Create new IAM role](#)

Shutdown behavior  Stop 


Stop 

Stop - Hibernate behavior  ☐ Enable hibernation as an additional stop behavior

☐ Enable hibernation as an additional stop behavior

Enable termination protection  ☐ Protect against accidental termination

☐ Protect against accidental termination

Monitoring  ☐ Enable CloudWatch detailed monitoring
[Additional charges apply.](#)

☐ Enable CloudWatch detailed monitoring
[Additional charges apply.](#)

Step 3: Configure Instance Details

Tenancy ⓘ

Shared - Run a shared hardware instance ▼

[Additional charges will apply for dedicated tenancy.](#)

Credit specification ⓘ

☐ Unlimited

[Additional charges may apply](#)

File systems ⓘ

fs-0594abbef20327926 | wp_efs ▼ /var/www/html ✕

Add file system



Create new file system



Additional security groups required

To enable access to the file system, the required security groups will be automatically created and attached to this instance and the selected file system's mount targets. To manually manage the security groups, clear the check box. [Learn more.](#)

☐ Automatically create and attach the required security groups.

▼ Network interfaces ⓘ

Device	Network Interface	Subnet	Primary IP	Secondary IP addresses
eth0	New network interface ▼	subnet-0070537f ▼	Auto-assign	Add IP

Add Device

▼ Advanced Details

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes. [Learn more](#) about storage options in Amazon EC2.

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume Type ⓘ	IOPS ⓘ	Throughput (MB/s) ⓘ	Delete on Termination ⓘ	Encryption ⓘ
Root	/dev/sda1	snap-0868b25604cf2e3d0	<input type="text" value="8"/>	General Purpose SSD (gp2) ▼	100 / 3000	N/A	<input checked="" type="checkbox"/>	Not Encrypted ▼

Add New Volume

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. [Learn more](#) about free usage tier eligibility and usage restrictions.

▼ Shared file systems ⓘ

- EFS fs-0594abbef20327926 | /var/www/html

Manage file systems



Services

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[Alt+S]

1. Choose AMI

2. Choose Instance Type

3. Configure Instance

4. Add Storage

5. Add Tags

6. Configure Security Group

7. Review

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

A copy of a tag can be applied to volumes, instances or both.

Tags will be applied to all instances and volumes. [Learn more](#) about tagging your Amazon EC2 resources.

Key (128 characters maximum)

Value (256 characters maximum)

Instances ⓘ

Volumes ⓘ

Network
Interfaces ⓘ

Name

wp_1



Add another tag

(Up to 50 tags maximum)

Name

wp_2



Add another tag

(Up to 50 tags maximum)

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. [Learn more](#) about Amazon EC2 security groups.

Assign a security group: ☐ Create a **new** security group
☒ Select an **existing** security group

Security Group ID	Name	Description	Actions
<input type="checkbox"/> sg-042c2dc3188dbe961	default	default VPC security group	Copy to new
<input checked="" type="checkbox"/> sg-0a6b34bc3b79cb987	sg_ec2	Security group for EC2	Copy to new
<input type="checkbox"/> sg-0e3c9a77e8554a5ab	sg_efs	Security group for EFS	Copy to new
<input type="checkbox"/> sg-0498df46b0db7fa69	sg_lb	Security group for LB	Copy to new
<input type="checkbox"/> sg-04c7b311bfaebf0	sg_rds	Security group for RDS	Copy to new

Inbound rules for sg-0a6b34bc3b79cb987 (Selected security groups: sg-0a6b34bc3b79cb987)

Type ⁱ	Protocol ⁱ	Port Range ⁱ	Source ⁱ	Description ⁱ
HTTP	TCP	80	10.0.0.0/16	Allow inbound HTTP...
SSH	TCP	22	203.189.65.120/29	Allow inbound SSH ...

Step 7: Review Instance Launch

Host ID

Host resource group name

Affinity Off

Kernel ID Use default

RAM disk ID Use default

Enclave false

Metadata accessible Enabled

Metadata version V1 and V2 (token optional)

Metadata token response hop limit 1

Allow tags in metadata Enabled

User data I2Nsb3VkLWNvbmZpZwpwYWNrYWdlX3VwZGF0ZTogdH

Assign Public IP Use subnet setting (Enable)

Assign IPv6 IP Use subnet setting (Enable)

Hostname type IP name

Resource-based IPv4 DNS Enabled

Resource-based IPv6 DNS Disabled

Network interfaces

Device	Network Interface	Subnet	Private IP address
eth0	New network interface	subnet-007053753c9e0f3e3	Auto-assign

Storage

Volume Type ⓘ	Device ⓘ	Snapshot ⓘ	Size (GiB) ⓘ	Volume type ⓘ
Root	/dev/sda1	snap-0868b25604cf2e3d0	8	gp2

Tags

Key	Value	Instances ⓘ	Volumes ⓘ	Network Interfaces ⓘ
Name	wp_1			

Select an existing key pair or create a new key pair

A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about [removing existing key pairs from a public AMI](#).

Choose an existing key pair

Select a key pair

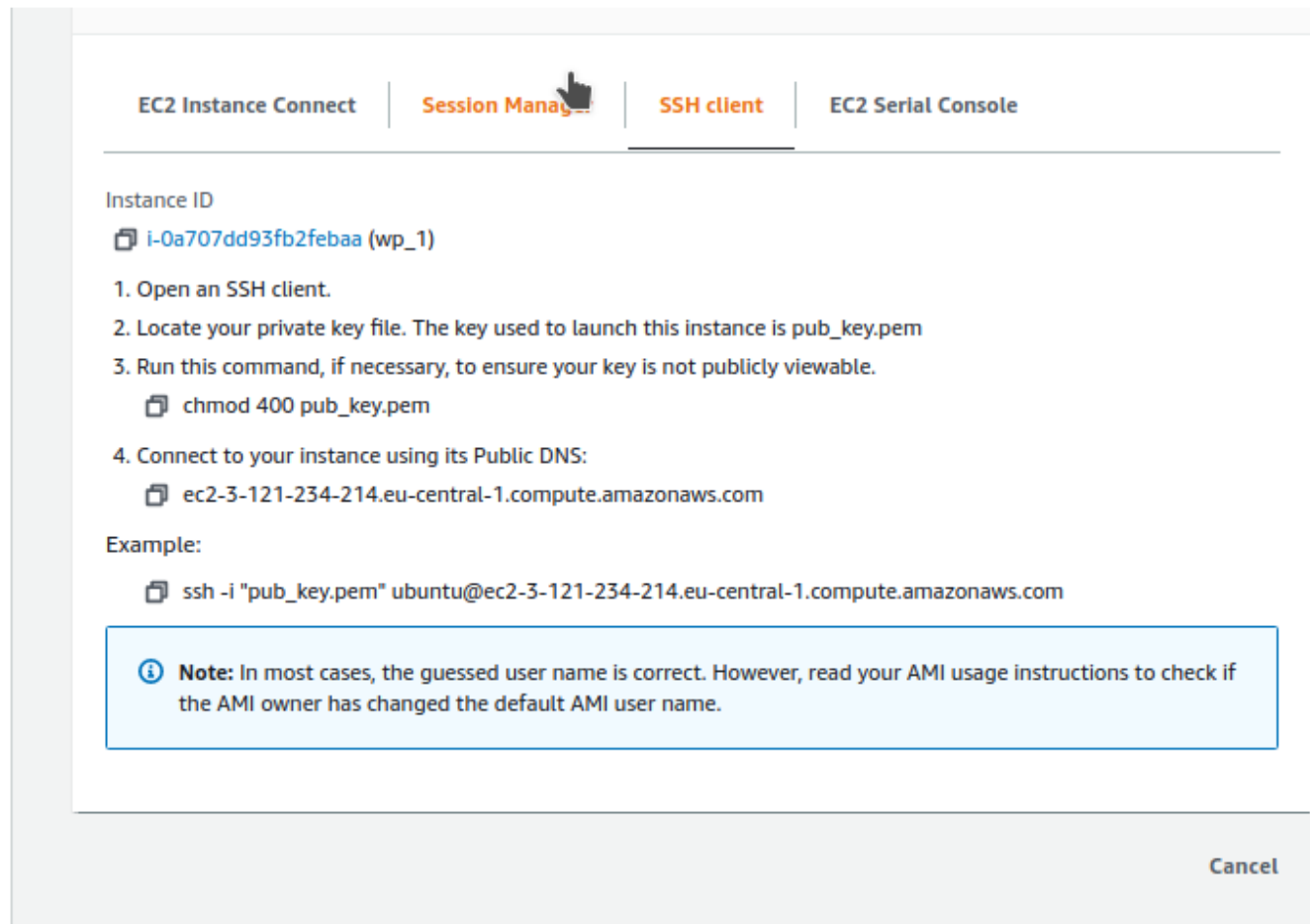
pub_key | ED25519

☒ I acknowledge that I have access to the corresponding private key file, and that without this file, I won't be able to log into my instance.

Cancel

Launch Instances

Log in to EC2 Instance



The screenshot shows the AWS Management Console interface for an EC2 instance. At the top, there are four tabs: 'EC2 Instance Connect', 'Session Manager' (which is selected and highlighted with a mouse cursor), 'SSH client', and 'EC2 Serial Console'. Below the tabs, the 'Instance ID' is displayed as 'i-Oa707dd93fb2febaa (wp_1)'. A list of four steps is provided for connecting to the instance via SSH. Step 1 is 'Open an SSH client.' Step 2 is 'Locate your private key file. The key used to launch this instance is pub_key.pem'. Step 3 is 'Run this command, if necessary, to ensure your key is not publicly viewable.', followed by the command 'chmod 400 pub_key.pem'. Step 4 is 'Connect to your instance using its Public DNS:', followed by the public DNS address 'ec2-3-121-234-214.eu-central-1.compute.amazonaws.com'. Below the steps, an 'Example:' section shows the full SSH command: 'ssh -i "pub_key.pem" ubuntu@ec2-3-121-234-214.eu-central-1.compute.amazonaws.com'. A blue-bordered box contains a 'Note' with an information icon, stating: 'Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.' At the bottom right of the console window, there is a 'Cancel' button.

EC2 Instance Connect | **Session Manager** | SSH client | EC2 Serial Console

Instance ID
i-Oa707dd93fb2febaa (wp_1)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is pub_key.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
`chmod 400 pub_key.pem`
4. Connect to your instance using its Public DNS:
`ec2-3-121-234-214.eu-central-1.compute.amazonaws.com`

Example:

```
ssh -i "pub_key.pem" ubuntu@ec2-3-121-234-214.eu-central-1.compute.amazonaws.com
```

Note: In most cases, the guessed user name is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel

Add target in target group



Services

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Frankfurt ▼

sg @ 3764-5407-2216

EC2 > Target groups > lb-tg > Register targets

Register targets

Select instances, specify ports, and add the instances to the list of pending targets. Repeat to add additional combinations of instances and ports to the list of pending targets. Once you are satisfied with your selections, click Register pending targets.

Available instances (2/2)

Filter resources by property or value

< 1 > ⚙

<input checked="" type="checkbox"/>	Instance ID	Name	State	Security groups	Zone	IPv4 address	Subnet ID
<input checked="" type="checkbox"/>	i-0a707dd93fb2febbaa	wp_1	running	sg_ec2	eu-central-1a	3.121.234.214	subnet-007053753c9e0f3e3
<input checked="" type="checkbox"/>	i-02bd5c75801e9c33d	wp_2	running	sg_ec2	eu-central-1b	54.93.54.74	subnet-042d9c65ed1642046

2 selected

Ports for the selected instances

Ports for routing traffic to the selected instances.

80

1-65535 (separate multiple ports with commas)

Include as pending below

Check EFS and install packages

```
ubuntu@ip-10-0-1-194:~$ mount | grep /var/www/html
fs-0594abbef20327926.efs.eu-central-1.amazonaws.com:/ on /var/www/html type nfs4 (rw,relatime,vers=4.1,rsz=1048576,wsz=1048576,namlen=255,hard,noresvport,proto=tcp,timeo=600,retrans=2,sec=sys,clientaddr=10.0.1.194,local_lock=none,addr=10.0.1.117,_netdev)
```

```
ubuntu@ip-10-0-1-194:~$ sudo apt-get install -y apache2 ghostscript libapache2-mod-php php php-bcmath php-curl php-imagick php-intl php-json php-mbstring php-mysql php-xml php-zip
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils fontconfig-config fonts-dejavu-core fonts-droid-fallback fonts- noto-mono fonts-urw-base35 gsfonts
  imagemagick-6-common libapache2-mod-php7.4 libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap libavahi-client3 libavahi-common-data
  libavahi-common3 libcups2 libfftw3-double3 libfontconfig1 libgomp1 libgs9 libgs9-common libidn11 libijs-0.35 libjansson4 libjbig0 libjbig2dec0
  libjpeg-turbo8 libjpeg8 liblcms2-2 liblqr-1-0 liblua5.2-0 libmagickcore-6.q16-6 libmagickwand-6.q16-6 libonig5 libopenjp2-7 libpaper-utils
  libpaper1 libtiff5 libwebp6 libwebpmux3 libzip5 php-common php7.4 php7.4-bcmath php7.4-cli php7.4-common php7.4-curl php7.4-intl php7.4-json
  php7.4-mbstring php7.4-mysql php7.4-opcache php7.4-readline php7.4-xml php7.4-zip poppler-data ssl-cert ttf-dejavu-core
Suggested packages:
```

Download and install WordPress

```
ubuntu@ip-10-0-1-194:~$ sudo chown www-data:www-data /var/www/html
ubuntu@ip-10-0-1-194:~$ sudo curl https://raw.githubusercontent.com/wp-cli/builds/gh-pages/phar/wp-cli.phar -o /usr/local/sbin/wp
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left   Speed
100 6342k  100 6342k    0     0  48.0M      0  --:--:-- --:--:-- --:--:--  48.0M
ubuntu@ip-10-0-1-194:~$ sudo chmod +x /usr/local/sbin/wp

ubuntu@ip-10-0-1-194:~$ sudo -u www-data wp core download --path=/var/www/html || true
Downloading WordPress 5.9.1 (en_US)...
Warning: Failed to create directory '/var/www/.wp-cli/cache/': mkdir(): Permission denied.
md5 hash verified: 5bbe205b48cf9255fd7c954040aeb125

Success: WordPress downloaded.
ubuntu@ip-10-0-1-194:~$
ubuntu@ip-10-0-1-194:~$ sudo -u www-data cp -n /var/www/html/wp-config-sample.php /var/www/html/wp-config.php
ubuntu@ip-10-0-1-194:~$ sudo nano ^C
ubuntu@ip-10-0-1-194:~$ sudo -u www-data nano /var/www/html/wp-config.php
```


Wp-config & continue WP install

```
GNU nano 4.8 /var/www/html/wp-config.php
// ** Database settings - You can get this info from your web host ** //
/** The name of the database for WordPress */
define( 'DB_NAME', 'wpdb' );

/** Database username */
define( 'DB_USER', 'wpadm' );

/** Database password */
define( 'DB_PASSWORD', 'zxcVFR321' );

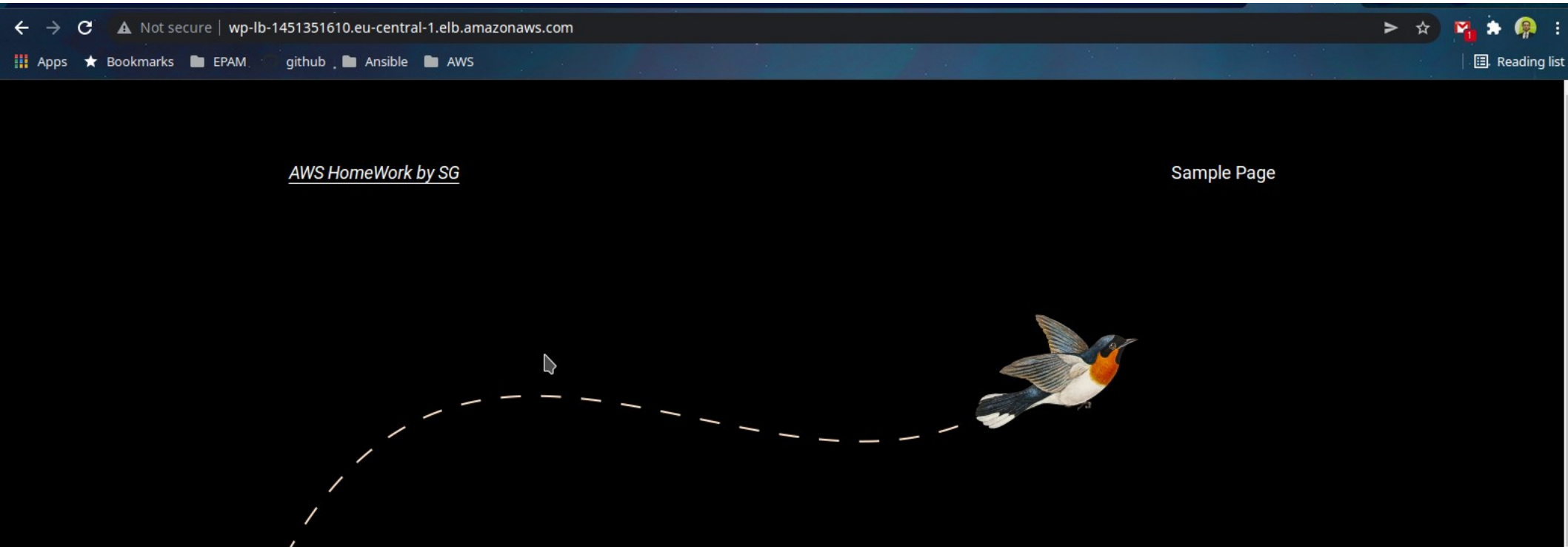
/** Database hostname */
define( 'DB_HOST', 'wp-db.cdgsrn7j6tr9.eu-central-1.rds.amazonaws.com' );

/** Database charset to use in creating database tables. */
define( 'DB_CHARSET', 'utf8' );

/** The database collate type. Don't change this if in doubt. */
define( 'DB_COLLATE', '' );
```

```
ubuntu@ip-10-0-1-194:~$ sudo -u www-data wp core is-installed --path=/var/www/html/ || sudo -u www-data wp core install --url=wp-lb-1451351610.eu-central-1.elb.amazonaws.com --title="AWS HomeWork by SG" --admin_user=wpadm --admin_password=zxcVFR321 --admin_email=admin@example.com --path='/var/www/html/' --skip-email
Success: WordPress installed successfully.
```

Check: go to LoadBalancer DNS Name



Modify WP theme to output hostname

```
GNU nano 4.8                               ./wp-includes/blocks/site-title.php
*
* @package WordPress
*/

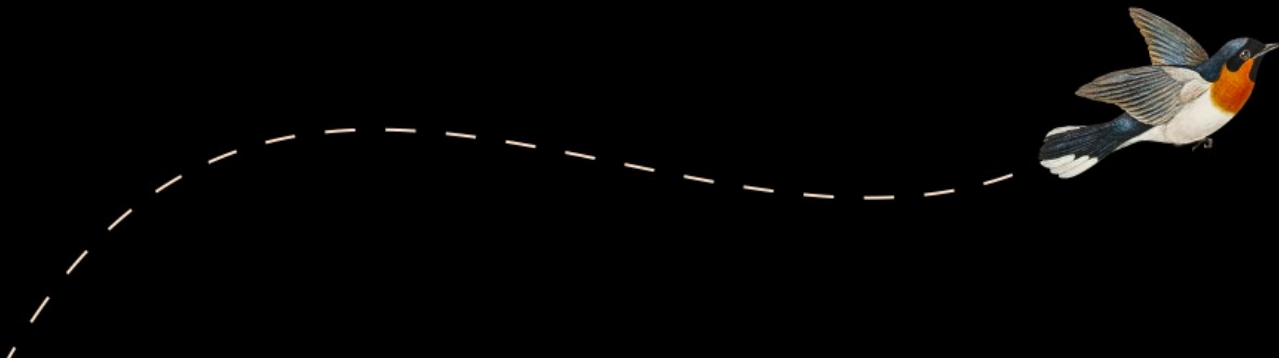
/**
 * Renders the `core/site-title` block on the server.
 *
 * @param array $attributes The block attributes.
 *
 * @return string The render.
 */
function render_block_core_site_title( $attributes ) {
    $site_title = get_bloginfo( 'name' ) . '@' . gethostname(); //echo shell_exec('hostname'); //get_bloginfo( 'name' );
    if ( ! $site_title ) {
        return;
    }

    $tag_name      = 'h1';
    $align_class_name = empty( $attributes['textAlign'] ) ? '' : "has-text-align-{$attributes['textAlign']}";

    [ Wrote 62 lines ]
^G Get Help      ^O Write Out    ^W Where Is     ^K Cut Text     ^J Justify      ^C Cur Pos      M-U Undo        M-A Mark Text   M-] To Bracket
^X Exit          ^R Read File    ^_ Replace      ^U Paste Text   ^T To Spell     ^_ Go To Line   M-E Redo        M-6 Copy Text   ^Q Where Was
```

AWS HomeWork by SG@ip-10-0-1-194

Sample Page

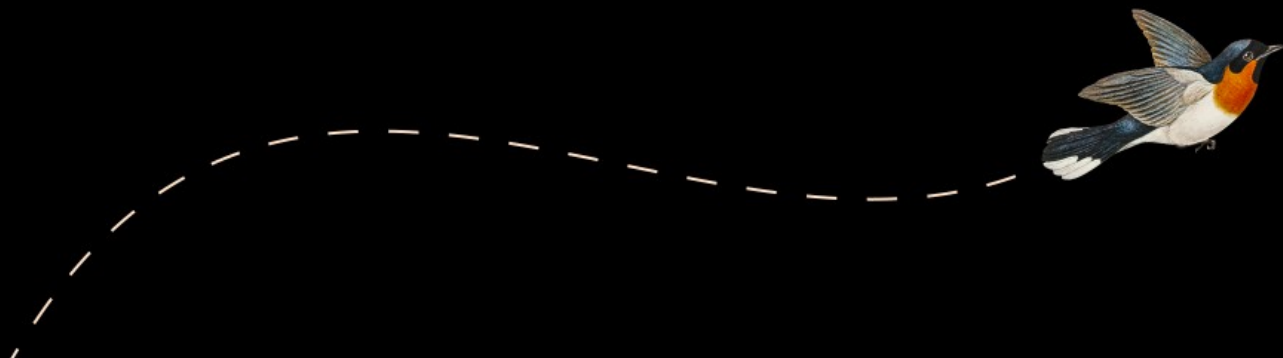


Hello world!

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

AWS HomeWork by SG@ip-10-0-2-40

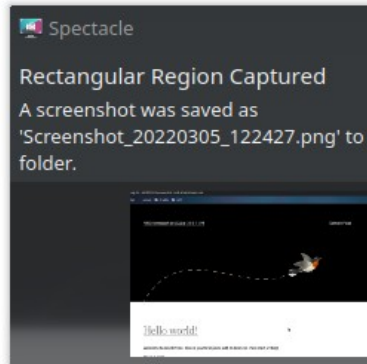
Sample Page



Hello world!

Welcome to WordPress. This is your first post. Edit or delete it, then start writing!

March 5, 2022





The same by Terraform:

- https://github.com/greatsaev/aws_task