

AWS Assignment

Create a web server and an Amazon RDS DB instance

1. Create an EC2 instance with HTTP inbound

▼ Network settings Info

VPC - required Info

vpc-08effaca58d839ac3 (Default VPC)
172.30.0.0/16

Subnet Info

subnet-03ae574f32845b8a7
VPC: vpc-08effaca58d839ac3 Owner: 154498175871
Availability Zone: us-east-1e IP addresses available: 251 CIDR: 172.30.4.0/24

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

Security group name - required

launch-wizard-7

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&:!\$*

Description - required Info

launch-wizard-7 created 2022-11-08T12:29:46.997Z

Inbound security groups rules

▼ Security group rule 1 (TCP, 22, 0.0.0.0/0)

Remove

Type Info

ssh

Protocol Info

TCP

Port range Info

22

Source type Info

Anywhere

Source Info

0.0.0.0/0

Description - optional Info

e.g. SSH for admin desktop

▼ Security group rule 2 (TCP, 443, 0.0.0.0/0)

Remove

Type Info

HTTPS

Protocol Info

TCP

Port range Info

443

Source type Info

Anywhere

Source Info

0.0.0.0/0

Description - optional Info

e.g. SSH for admin desktop

Amazon Linux 2 Kernel 5.10 AMI...read more
ami-09d3b3274b6c5d4aa

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

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

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP (IPv4)	Public IP (IPv6)	Elastic IP	IP (IPv4)	Monitoring	Security group name	Key name	Launch time
WebServer	i-11f1b0387716a7956	Running	t2.micro	OK	No alarms	us-east-1a	ec2-100-25-110-150...	100-25-110-150	-	-	disabled	launch-wizard-7	helloworld	2022/11/08 10:00 GMT+05:30

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2. Create a DB instance and connect it to EC2 Instance

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.

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.

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

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

- Standard classes (includes m classes)
- Memory optimized classes (includes r and x classes)
- Burstable classes (includes t classes)**

2 vCPUs 1 GIB RAM Network: 2,085 Mbps

☒ **Include previous generation classes**

Connectivity

Compute resource
Choose whether to set up a connection to a compute resource for this database. Setting up a connection will automatically change connectivity settings so that the compute resource can connect to this database.

☐ **Don't connect to an EC2 compute resource**
Don't set up a connection to a compute resource for this database. You can manually set up a connection to a compute resource later.

☒ **Connect to an EC2 compute resource**
Set up a connection to an EC2 compute resource for this database.

EC2 Instance Info
Choose the EC2 instance to add as the compute resource for this database. A VPC security group is added to this EC2 instance. A VPC security group is also added to the database with an inbound rule that allows the EC2 instance to access the database.

WebServer

Some VPC settings can't be changed when a compute resource is added
Adding an EC2 compute resource automatically selects the VPC, DB subnet group, and public access settings for this database. To allow the EC2 instance to access the database, a VPC security group rds-ec2-X is added to the database and another called ec2-rds-X to the EC2 instance. You can remove the new security group for the database only by removing the compute resource.

Virtual private cloud (VPC) Info
Choose the VPC. The VPC defines the virtual networking environment for this DB instance.

Only VPCs with a corresponding DB subnet group are listed.

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

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

Public access Info
☐ **Yes**
RDS assigns a public IP address to the database. Amazon EC2 instances and other resources outside of the VPC can connect to the database by using the public IP address.

3. Install Web Server and Connect DB

```
sudo amazon-linux-extras install php8.0 mariadb10.5
```

```
sudo yum install -y httpd
```

```
sudo systemctl start httpd
```

```
sudo systemctl enable httpd
```

← → ↻ 🏠 ⚠ Not secure | ec2-100-25-110-150.compute-1.amazonaws.com/SamplePage.php ☆ 📄 🌐 Incognito ⋮

Sample page

NAME ADDRESS

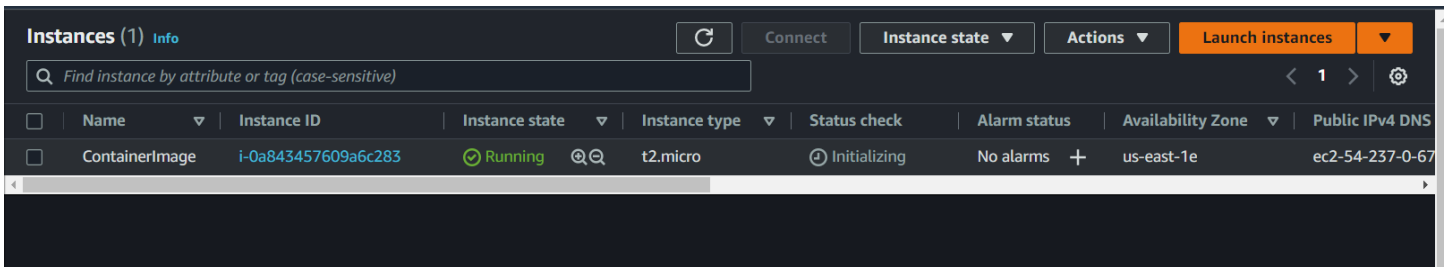
ID	NAME	ADDRESS
1	Aakash Gouri Shankar	#6 Gera

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Creating a container image for use on Amazon ECS

1. Create an EC2 Instance and install Docker



1. `sudo yum update -y`
2. `sudo amazon-linux-extras install docker`
3. `sudo service docker start`
4. `sudo systemctl enable docker`
5. `sudo usermod -a -G docker ec2-user`
6. `docker info`

```
Last login: Wed Nov  9 07:11:05 2022 from ec2-18-206-107-28.compute-1.amazonaws.com

 _ _ | _ _ | _ _ )
 _ | ( _ _ /   Amazon Linux 2 AMI
 _ | \ _ _ | _ _ |

https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-30-4-164 ~]$ docker info
Client:
 Context:      default
 Debug Mode:  false

Server:
 Containers: 0
  Running: 0
  Paused: 0
  Stopped: 0
 Images: 0
 Server Version: 20.10.17
 Storage Driver: overlay2
  Backing Filesystem: xfs
  Supports d_type: true
  Native Overlay Diff: true
 userxattr: false
 Logging Driver: json-file
 Cgroup Driver: cgroupfs
 Cgroup Version: 1
 Plugins:
  Volume: local
  Network: bridge host ipvlan macvlan null overlay
  Log: awslogs fluentd gcplogs gelf journald json-file local logentries splunk syslog
 Swarm: inactive
 Runtimes: io.containerd.runc.v2 io.containerd.runtime.v1.linux runc
 Default Runtime: runc
 Init Binary: docker-init
 containerd version: 10c12954828e7c7c9b6e0ea9b0c02b01407d3ae1
```

2. Create a Docker file

```
FROM ubuntu:18.04

# Install dependencies
RUN apt-get update && \
    apt-get -y install apache2

# Install apache and write hello world message
RUN echo 'Hello World!' > /var/www/html/index.html

# Configure apache
RUN echo '. /etc/apache2/envvars' > /root/run_apache.sh && \
    echo 'mkdir -p /var/run/apache2' >> /root/run_apache.sh && \
    echo 'mkdir -p /var/lock/apache2' >> /root/run_apache.sh && \
    echo '/usr/sbin/apache2 -D FOREGROUND' >> /root/run_apache.sh && \
    chmod 755 /root/run_apache.sh

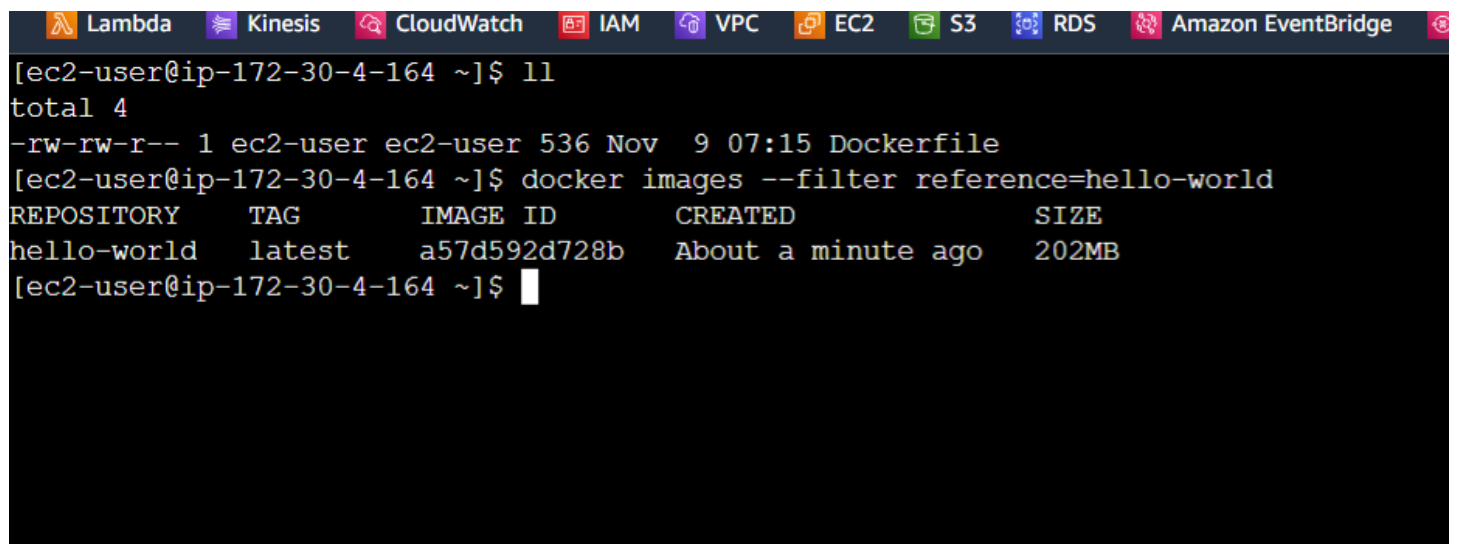
EXPOSE 80

CMD /root/run_apache.sh
```

And build the docker file

```
docker build -t hello-world .
```

```
docker images --filter reference=hello-world
```

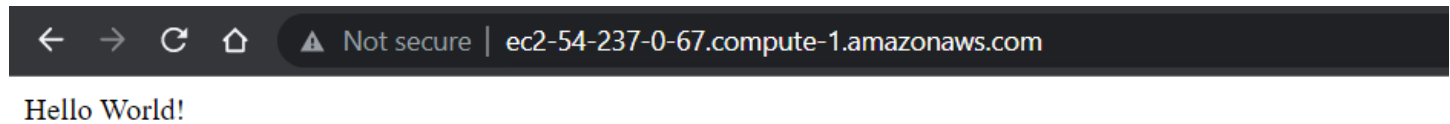


The screenshot shows a terminal window with a top bar containing various AWS service icons (Lambda, Kinesis, CloudWatch, IAM, VPC, EC2, S3, RDS, Amazon EventBridge). The terminal output is as follows:

```
[ec2-user@ip-172-30-4-164 ~]$ ll
total 4
-rw-rw-r-- 1 ec2-user ec2-user 536 Nov  9 07:15 Dockerfile
[ec2-user@ip-172-30-4-164 ~]$ docker images --filter reference=hello-world
REPOSITORY      TAG          IMAGE ID      CREATED        SIZE
hello-world     latest      a57d592d728b  About a minute ago  202MB
[ec2-user@ip-172-30-4-164 ~]$
```

Run the Docker

```
docker run -t -i -p 80:80 hello-world
```



Push image to Elastic Container Registry

```
aws ecr create-repository --repository-name hello-repository --region region
```

```
[ec2-user@ip-172-30-4-164 ~]$ aws ecr create-repository --repository-name hello-repository --region us-east-1
{
  "repository": {
    "repositoryUri": "154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository",
    "imageScanningConfiguration": {
      "scanOnPush": false
    },
    "encryptionConfiguration": {
      "encryptionType": "AES256"
    },
    "registryId": "154498175871",
    "imageTagMutability": "MUTABLE",
    "repositoryArn": "arn:aws:ecr:us-east-1:154498175871:repository/hello-repository",
    "repositoryName": "hello-repository",
    "createdAt": 1667978884.0
  }
}
[ec2-user@ip-172-30-4-164 ~]$
```

Tag image with Repository URI

```
docker tag hello-world 154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository
```

```
[ec2-user@ip-172-30-4-164 ~]$ docker login -u AWS -p $(aws ecr get-login-password --region us-east-1) 154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository
WARNING! Using --password via the CLI is insecure. Use --password-stdin.
WARNING! Your password will be stored unencrypted in /home/ec2-user/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
[ec2-user@ip-172-30-4-164 ~]$ ll
total 4
-rw-rw-r--r-- 1 ec2-user ec2-user 536 Nov  9 07:15 Dockerfile
[ec2-user@ip-172-30-4-164 ~]$ cat /home/ec2-user/.docker/config.json
{
  "auths": {
    "154498175871.dkr.ecr.us-east-1.amazonaws.com": {
      "auth": "QvDTomV5SndZWGxzYjJGae0lqb2lTMjb4YVUJMFVMDXhMbEJCuzBoNmNpdGhSG95TtJ0VYVlWSalUR3hwTmxWa05YbHdWRmtYTWlZcmVsRlNOR3hFTlZsTlVtTjNjSE54Wji1Iuk5XUjZ
WRmhuWkpZWNWYUlpja2cz2t1V0VE4zYzJlbFF4MmtORGNYaE1URTUwWTBRM04wUlabvPkU3pSMFZyZzZBha0p3ZWxwU1kwVnROSfZyVUVSYVFWRTBjWEprUm14aWVXeEdiWE5QYllocksYs1RRRWGhVt1VsdGMwShpXVWN6VFRaemF
qUm1iellIwZFRSVO1WemtiR1V4Vku1aFMwb3hhVghkZWPceWVfUkdXa3hMMWlRkdVYTKziV2hFyzFobmKpOVdjVzVsT0dkaVQyOTJhaKRoYW5Cc05rMUNOMEpWY2xodE9URmlRbGRWY1dONVNEZHRSVFJlW1c4NFNVt1FOMFZ1TDA
4NFFUZGhWemhTYlhwblVERKJZbUzyYVjdiV6qnJRMFZLWmpSeVfubDZSSepY1VWall1UTTJNBWRJm1kalNUwk9NRGsyY25Sg1JFVXlUM2x5VDJON1NsSkpXbGhKvM5BNVR6S1Vh1kwVvdRdlVXeG1SbmhCVTFZe1VuR1RUMDV
pVUZnNUsweHBSSEpYyUghkNlRFTlhhbUv6VvCid1FubHRlRbXb6VVROVE9UTmxiRVUwVFRsd01rOU1RMkpCZfcdm1l1rOVpRVXhtVEhab05VT1BSR05OT1VaTU1uSnZWMUk0VgNnNVVuzF1ZMWhEukZWSUSwZSZ1RUZXXZEdGUFp6SmF
wVvJVSzJoTlNXMHJUVEYzYUVNNWmZ2G9UMUJWURGbVFRFZEhNR3RHV1RScmMyOXFNQz16VGL4MmRXZ2GpVRkJET0VwVWV26WktNVGxuVDFGTFpIaExZblpsYlRwEGntSTJJaalpPVVVkeFFXUk5TU3RKY2xSc1lsWmthbTF3WwXWemN
VVKdTMkZNU2xSUvJpdFRAmVJZVG1OTk5WRm1OSeo0TjNwdGRibFdTbmRTWWxwWGMZaEJkSGxwTDFseWR6Tk5hVEF3YzJoTVduTnBVPUpJTRlCbGNtWk1URUZgVWxGUFFsRk5jb05hY0hCcVHVhVmtVR1J0VVU1RmVrVjRUVE16UzF
BelNITnBvVvpsZVd0RmEYyldjaZFvV21weVNEy3dQMDFrYlVGMVntRXdIRPwOVKdldYt1lV1k1YTFNM1JuVnlWRKZLY21sNGVYqmtVRFJsv1RoVFRGTnlUSEJ3Wml1VMFRGRjJiRlJqVfHBMFiWMDNka3RuVmp2MVmWwVxpPRz1
HVVdvc1REQkQUSFF4Y1dsQ1RvcFdTVEp0YTBOU0wUkJKRkZuYjNOQksySXhRWFJ2Y2Tnd1VGZG91azh3SzJnNVrtldzVXR3hgV2s1c05rZEZkv1Z5YkZSb1lsSXpUQz1rVmpWQ1EhXQjRRMEZHTJNGUVZVcGxTVTVtVFRFMGJXVvZ
UMWRW1VwVJXTT1SGhPVGxkt1VWQktVvKpaWpWak9Fd3dZMnh0SZNZMWRVbE5URXB1TkrJewWtU1ZiVEkyU3pCVFJtbHBFZVE5P2FZOaWwVqWm51aXR0TWxScVJXVTFSbVJSUm14SmFDdEd2w2ZUdaa1lRl1RV1pLUTBsM2J
tVnlTeTlLmxCCvRYa3ZTHB4Uj14NWjVVTBkM2xqUjJKemFFazBXak5NSzJOTGVHaFlMM0J2U3k4d1NVbE5NMmBDYUhrdk5rRnRZamNyUWtZdlDubEVZemh4YwPNeE9VNXVNVFZMT1VKRGJUUm1XbEpTTTBKMGFGaHhRVFJNYTB
KbG1zszZ2MXayTlhdV1FUMDLJaKdpWkdGmFlXdcx1Uok2SwtGULJVSktJR2gzYlRCw1lVbFRtbvZTZEVwde5XNHhSeloXy1dwbG6XadF1MWhZVUDvVMVZVWmpaVgxtY1Rndk1UujjNRVUZCU0RSM1prRlPta3R2V2tzb2RtTk9RVKZ
gUj15SE91ZG1VWwZDUVVSQ21sSm5h0ZvYtJSeS9Yy3dRa0ozUlhksVoxbEtKVWkhU1VwGFZVUkARVvVvFVKR1JUvUkZWbVkyWm01V2FWQXhWRFFZRVkZCb1VvBdSVWwXCTjNsM1Zur1pSR1FyG5WQ1R6bEtNVEpOY0ZabMFTODR
RVFpVUXpaRWJucDBZVXRdVGpoc1VWVjRVR013UUVRCFUYcHFRa1Y1TTNQlRtaGlJrmh0UzFaqlkzqkZNe1pDWW5SUFVfBHRSRkU5SW13aWrtVnlJmMx2Ym1JNklqSW1MQ0owZVhCbElqB21SRUZVUVY5TFJwa21MQ0psZuHccGn
```

Push the Image to Amazon ECR

docker push 154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository

```
Lambda Kinesis CloudWatch IAM VPC EC2 S3 RDS Amazon EventBridge Simple Queue Service Simple Notification Service

[ec2-user@ip-172-30-4-164 ~]$ docker push 154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository
Using default tag: latest
The push refers to repository [154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository]
801658932f5f: Pushed
89bcc56cb8b1: Pushed
dda282ca604c: Pushed
69f57fbcdb1b: Pushed
latest: digest: sha256:829269487a06f1c3bd6f5747c4053861dfc7a353badcc3e109f65f964bfb03b6 size: 1155
[ec2-user@ip-172-30-4-164 ~]$
```

Clean Up:

```
latest: digest: sha256:829269487a06f1c3bd6f5747c4053861dfc7a353badcc3e109f65f964bfb03b6 size: 1155
[ec2-user@ip-172-30-4-164 ~]$ aws ecr delete-repository --repository-name hello-repository --region us-east-1 --force
{
  "repository": {
    "repositoryUri": "154498175871.dkr.ecr.us-east-1.amazonaws.com/hello-repository",
    "registryId": "154498175871",
    "imageTagMutability": "MUTABLE",
    "repositoryArn": "arn:aws:ecr:us-east-1:154498175871:repository/hello-repository",
    "repositoryName": "hello-repository",
    "createdAt": "1667978884.0"
  }
}
[ec2-user@ip-172-30-4-164 ~]$
```

Glue Hands On

Create an IAM role with AWSGlueServiceRole and S3FullAccess

Permissions Trust relationships Tags Access Advisor Revoke sessions

Permissions policies (2) [Info](#)

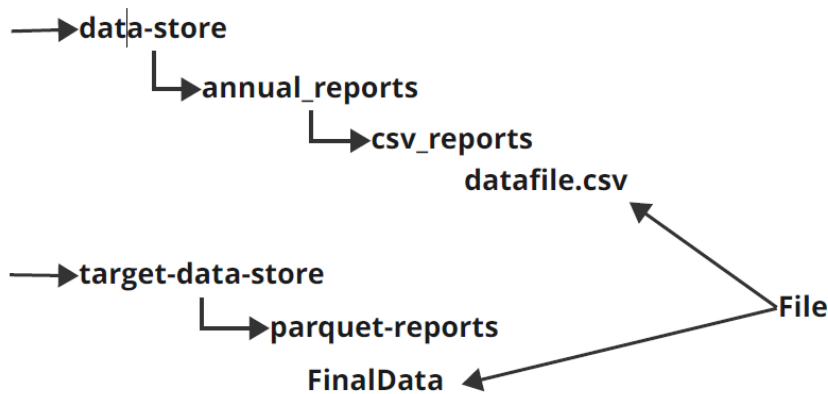
You can attach up to 10 managed policies.

< 1 > [Settings](#)

<input type="checkbox"/>	Policy name ↗	Type	Description
<input type="checkbox"/>	AmazonS3FullAccess	AWS managed	Provides full access to all buckets via the AWS Management Console.
<input type="checkbox"/>	AWSGlueServiceRole	AWS managed	Policy for AWS Glue service role which allows access to related services including EC2, S3, and Cloudw...

Create An S3 Bucket with the following Structure

aws-glue-barclays



Objects (2)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

[Refresh](#) [Copy S3 URI](#) [Copy URL](#) [Download](#) [Open](#) [Delete](#) [Actions](#) [Create folder](#) [Upload](#)

< 1 > [Settings](#)

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	data-store/	Folder	-	-	-
<input type="checkbox"/>	target-data-store/	Folder	-	-	-

Data File:

Query results

Query results are not available after you choose **Close** or navigate away. Choose **Download results** to download a copy of the following query results.

Status

🟢 Successfully returned 5 records in 4187 ms

Bytes returned: 376 B

Raw Formatted

```
Sno,description,industry,level,size,line_code,value
1,Awareness of climate change: Very aware,total,0,6719 employees,C0300.01,13080
2,Awareness of climate change: Very aware,total,0,20749 employees,C0300.01,3348
3,Awareness of climate change: Very aware,total,0,50799 employees,C0300.01,1089
4,Awareness of climate change: Very aware,total,0,100+ employees,C0300.01,1023
```

Glue: Configure DataBase information

Step 1
Set crawler properties

Step 2
Choose data sources and classifiers

Step 3
Configure security settings

Step 4
Set output and scheduling

Step 5
Review and create

Choose data sources and classifiers

Is your data already mapped to Glue tables?

Not yet

Select one or more data sources to be crawled.

Yes

Select existing tables from your Glue Data Catalog.

Data sources (1)

Info

Edit

Remove

Add a data source

The list of data sources to be scanned by the crawler.

Type	Data source	Parameters
<input type="radio"/>	S3	s3://aws-glue-barcays-aps/data... Recrawl all

Custom classifiers - optional

A classifier checks whether a given file is in a format the crawler can handle. If it is, the classifier creates a schema in the form of a StructType object that describes that data format.

Cancel

Previous

Next

Step 1
Set crawler properties

Step 2
Choose data sources and classifiers

Step 3
Configure security settings

Step 4
Set output and scheduling

Step 5
Review and create

Configure security settings

IAM role

Info

Existing IAM role

GlueHandsOrbRole

View

Create new IAM role

Update chosen IAM role

Only IAM roles created by the AWS Glue console and have the prefix "AWSGlueServiceRole" can be updated.

Lake Formation configuration - optional

Preview

Allow the crawler to use Lake Formation credentials for crawling the data source. [Learn more](#)

☐ Use Lake Formation credentials for crawling S3 data source

Checking this box will allow the crawler to use Lake Formation credentials for crawling the data source. If the data source belongs to another account, you must provide the required account ID. Otherwise, the crawler will crawl only those data sources associated to the account. Only applicable to S3 and Glue Catalog data sources.

Step 1
Set crawler properties

Step 2
Choose data sources and classifiers

Step 3
Configure security settings

Step 4
Set output and scheduling

Step 5
Review and create

Set output and scheduling

Output configuration

Info

Target database

annual_reports

Clear selection

Add database

Table name prefix - optional

Type a prefix added to table names

Maximum table threshold - optional

The limit sets the maximum number of tables the crawler is allowed to generate. In the event that this number is surpassed, the crawl will fail with an error. If not set, the crawler will automatically generate the number of tables depending on the data schema.

Type a number greater than 0

Advanced options

Last updated: November 9, 2022 at 08:06:15 (UTC)

Crawlers (1)

Info

View and manage all available crawlers.

Filter crawlers


< 1 >

<input type="checkbox"/>	Name	State	Schedule	Last run	Log	Table cha...
<input type="checkbox"/>	annual_reports_crawler	🟢 Ready	-	-	-	-

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Run the Crawler

<input type="checkbox"/>	Name ▾	State ▾	Schedule	Last run ▾	Log	Table changes from last ...
<input type="checkbox"/>	annual_reports_cra...	✔ Ready		✔ Succeeded	View log 	1 created

Create jobs from Glue Studio

Visual

Script

Job details

Runs

Schedules

Version Control

Source

Action

Target

Undo

Redo

Remove

Data source - Data Catalog

AWS Glue Data Catalog

Transform - ApplyMapping

Change Schema (App...

Data target - S3 bucket

Amazon S3

Node properties

Data target properties - S3

Output schema

Data preview

Format

Parquet

Compression Type

Uncompressed

S3 Target Location

Choose an S3 location in the format s3://bucket/prefix/object/ with a trailing slash (/).

Q

s3://aws-glue-barclays-ags/target-data-store/parquet/

X

View

Browse S3

Data Catalog update options

Info

Choose how you want to update the Data Catalog table's schema and partitions. These options will only apply if the Data Catalog table is an S3 backed source.

Do not update the Data Catalog

Create a table in the Data Catalog and on subsequent runs, update the schema and add new partitions

Create a table in the Data Catalog and on subsequent runs, keep existing schema and add new partitions

Partition keys - optional

Run the job and verify the output in s3

parquet- reports/

Copy S3 URI

Objects

Properties

Objects (1)

Objects are the fundamental entities stored in Amazon S3. You can use [Amazon S3 Inventory](#) to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. [Learn more](#)

↻

Copy S3 URI

Copy URL

Download

Open

Delete

Actions ▼

Create folder

Upload

< 1 > ⚙

<input type="checkbox"/>	Name ▼	Type ▼	Last modified ▼	Size ▼	Storage class ▼
<input type="checkbox"/>	run-AmazonS3_node1667981997262-1-part-block-0-r-00000-uncompressed.parquet	parquet	November 9, 2022, 13:53:26 (UTC+05:30)	6.4 KB	Standard

Raw

Formatted

< 1 >

1	Awareness of climate change: Very aware	total	0	6?19 employees	C0300.01	13080
2	Awareness of climate change: Very aware	total	0	20?49 employees	C0300.01	3348
3	Awareness of climate change: Very aware	total	0	50?99 employees	C0300.01	1089
4	Awareness of climate change: Very aware	total	0	100+ employees	C0300.01	1023
5	Awareness of climate change: Very aware	Agriculture, forestry, & fishing	1	total	C0300.01	2364