

1. Set up a Cloud9 Development Environment

The screenshot shows the AWS Cloud9 console in the 'Create environment' wizard, Step 1: Name environment. The breadcrumb navigation is 'AWS Cloud9 > Environments > Create environment'. The left sidebar shows 'Step 1 Name environment', 'Step 2 Configure settings', and 'Step 3 Review'. The main content area is titled 'Name environment' and 'Environment name and description'. It contains a 'Name' field with the value 'DynamoDB Cloud9 Workspace' and a 'Description' field with the value 'Cloud9 Workspace for DynamoDB operations'. The footer includes 'Feedback', 'Looking for language selection? Find it in the new Unified Settings', '© 2022, Amazon Web Services, Inc. or its affiliates.', 'Privacy', 'Terms', and 'Cookie preferences'.

us-west-2.console.aws.amazon.com/cloud9/home/create

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AWS Cloud9 > Environments > Create environment

Step 1
Name environment

Step 2
Configure settings

Step 3
Review

Name environment

Environment name and description

Name
The name needs to be unique per user. You can update it at any time in your environment settings.

DynamoDB Cloud9 Workspace

Limit: 60 characters

Description - Optional
This will appear on your environment's card in your dashboard. You can update it at any time in your environment settings.

Cloud9 Workspace for DynamoDB operations

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The screenshot shows the AWS Cloud9 console in the 'Create environment' wizard, Step 2: Configure settings. The breadcrumb navigation is 'AWS Cloud9 > Environments > Create environment'. The left sidebar shows 'Step 1 Name environment', 'Step 2 Configure settings', and 'Step 3 Review'. The main content area is titled 'Configure settings' and 'Environment settings'. It contains 'Environment type' with three options: 'Create a new EC2 instance for environment (direct access)' (selected), 'Create a new no-ingress EC2 instance for environment (access via Systems Manager)', and 'Create and run in remote server (SSH connection)'. It also contains 'Instance type' with two options: 't2.micro (1 GiB RAM + 1 vCPU)' (selected) and 't3.small (2 GiB RAM + 2 vCPU)'. The footer is identical to the first screenshot.

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AWS Cloud9 > Environments > Create environment

Step 1
Name environment

Step 2
Configure settings

Step 3
Review

Configure settings

Environment settings

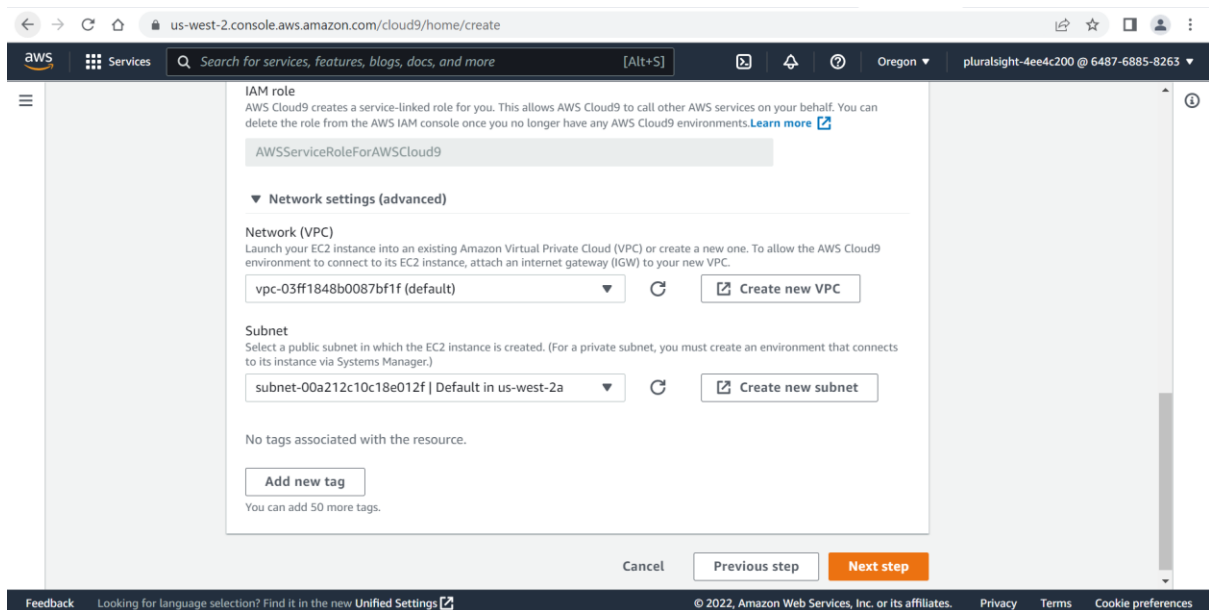
Environment type [Info](#)
Run your environment in a new EC2 instance or an existing server. With EC2 instances, you can connect directly through Secure Shell (SSH) or connect via AWS Systems Manager (without opening inbound ports).

- ☒ Create a new EC2 instance for environment (direct access)
Launch a new instance in this region that your environment can access directly via SSH.
- ☐ Create a new no-ingress EC2 instance for environment (access via Systems Manager)
Launch a new instance in this region that your environment can access through Systems Manager.
- ☐ Create and run in remote server (SSH connection)
Configure the secure connection to the remote server for your environment.

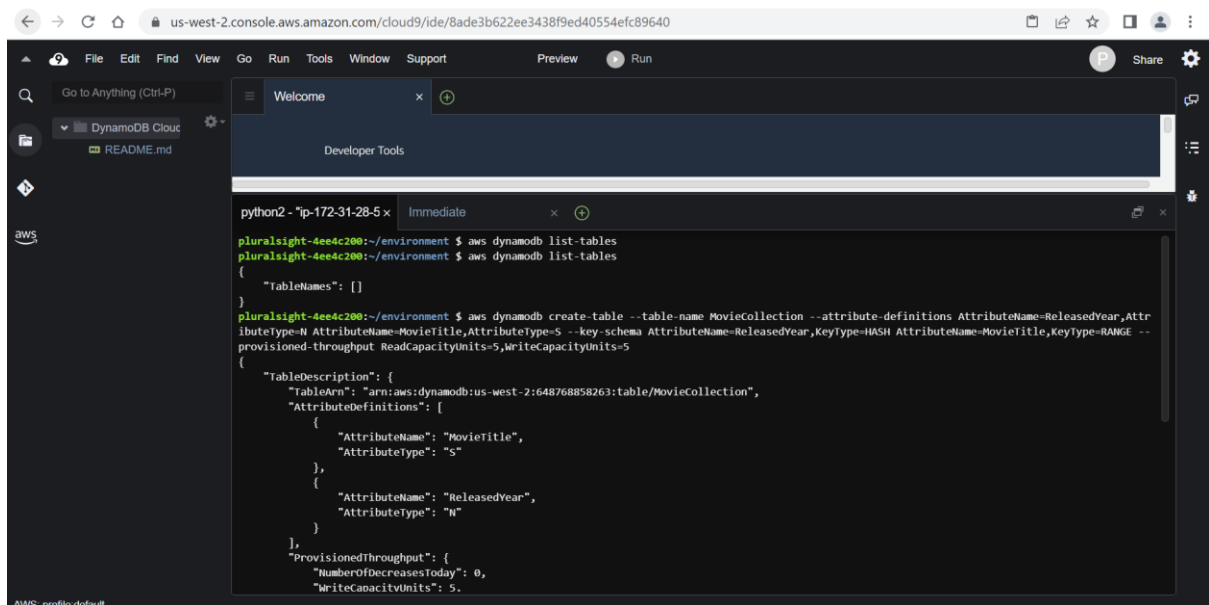
Instance type

- ☒ t2.micro (1 GiB RAM + 1 vCPU)
Free-tier eligible. Ideal for educational users and exploration.
- ☐ t3.small (2 GiB RAM + 2 vCPU)
Recommended for small-sized web projects.

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2. Create DynamoDB Table and Populate Data to the Table



```
us-west-2.console.aws.amazon.com/cloud9/ide/8ade3b622ee3438f9ed40554efc89640

Welcome x +

Developer Tools

python2 - "ip-172-31-28-5 x Immediate x +

{
  "TableName": "MovieCollection",
  "TableStatus": "CREATING",
  "TableId": "fd20b7f7-16cf-4ba8-a16d-5d59e7c03291",
  "KeySchema": [
    {
      "KeyType": "HASH",
      "AttributeName": "ReleasedYear"
    },
    {
      "KeyType": "RANGE",
      "AttributeName": "MovieTitle"
    }
  ],
  "ItemCount": 0,
  "CreationDateTime": 1656433066.18
}

pluralsight-4ee4c200:~/environment $ aws dynamodb list-tables
{
  "TableNames": [
    "MovieCollection"
  ]
}

pluralsight-4ee4c200:~/environment $
```

```
us-west-2.console.aws.amazon.com/cloud9/ide/8ade3b622ee3438f9ed40554efc89640

Welcome x +

Developer Tools

python2 - "ip-172-31-28-5 x Immediate x +

{
  "KeyType": "RANGE",
  "AttributeName": "MovieTitle"
}
],
"ItemCount": 0,
"CreationDateTime": 1656433066.18
}

pluralsight-4ee4c200:~/environment $ aws dynamodb list-tables
{
  "TableNames": [
    "MovieCollection"
  ]
}

pluralsight-4ee4c200:~/environment $ aws dynamodb put-item --table-name MovieCollection --item '{"ReleasedYear": {"N": "2013"}, "MovieTitle": {"S": "Thor: the Dark World"}, "rank": {"N": "5"} }' --return-consumed-capacity TOTAL --return-item-collection-metrics SIZE
{
  "ConsumedCapacity": {
    "CapacityUnits": 1.0,
    "TableName": "MovieCollection"
  }
}

pluralsight-4ee4c200:~/environment $
```

```
us-west-2.console.aws.amazon.com/cloud9/ide/8ade3b622ee3438f9ed40554efc89640

Welcome x +

Developer Tools

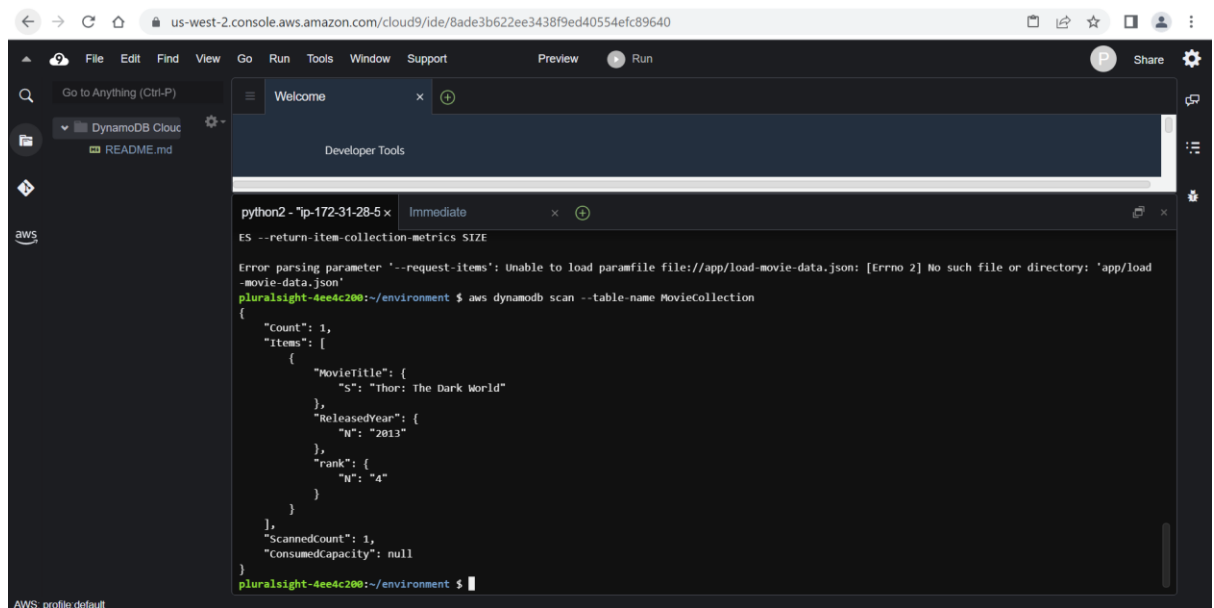
python2 - "ip-172-31-28-5 x Immediate x +

{
  "MovieTitle": {
    "S": "Thor: The Dark World"
  },
  "ReleasedYear": {
    "N": "2013"
  },
  "rank": {
    "N": "5"
  }
}
],
"ScannedCount": 1,
"ConsumedCapacity": null
}

pluralsight-4ee4c200:~/environment $ aws dynamodb put-item --table-name MovieCollection --item '{"ReleasedYear": {"N": "2013"}, "MovieTitle": {"S": "Thor: the Dark World"}, "rank": {"N": "4"} }' --return-consumed-capacity TOTAL --return-item-collection-metrics SIZE
{
  "ConsumedCapacity": {
    "CapacityUnits": 1.0,
    "TableName": "MovieCollection"
  }
}

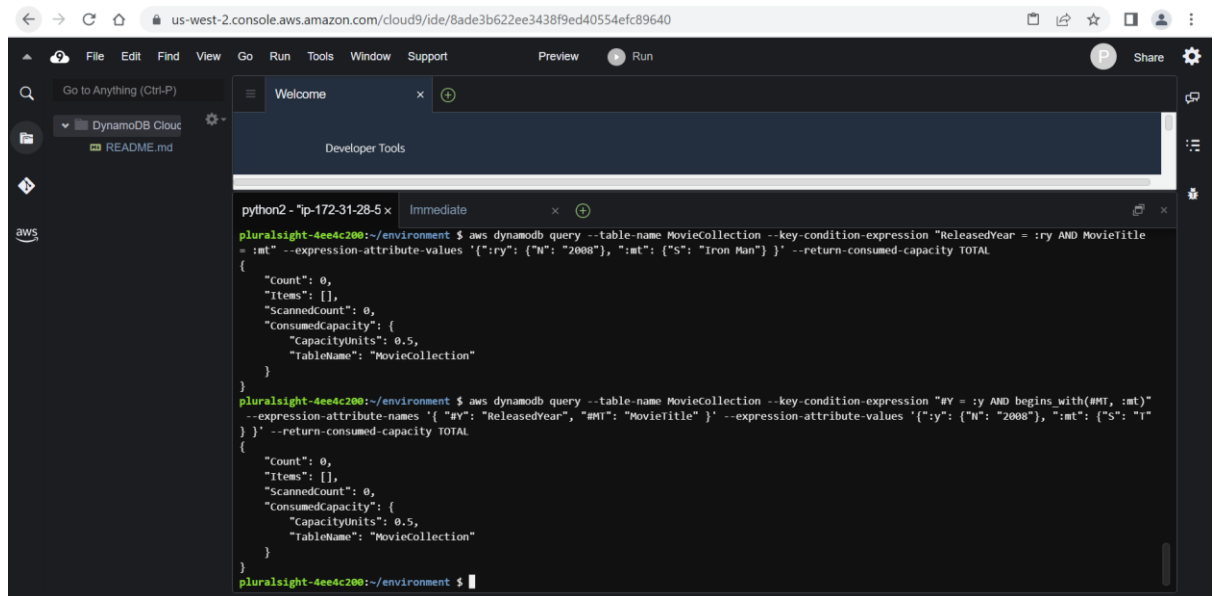
pluralsight-4ee4c200:~/environment $
```

3. Query the DynamoDB Table



The screenshot shows the AWS Cloud9 IDE interface. The terminal window displays the following commands and output:

```
python2 - "ip-172-31-28-5 x" Immediate x +
ES --return-item-collection-metrics SIZE
Error parsing parameter '--request-items': Unable to load paramfile file://app/load-movie-data.json: [Errno 2] No such file or directory: 'app/load-movie-data.json'
pluralsight-4ee4c200:~/environment $ aws dynamodb scan --table-name MovieCollection
{
  "Count": 1,
  "Items": [
    {
      "MovieTitle": {
        "S": "Thor: The Dark World"
      },
      "ReleasedYear": {
        "N": "2013"
      },
      "Rank": {
        "N": "4"
      }
    }
  ],
  "ScannedCount": 1,
  "ConsumedCapacity": null
}
pluralsight-4ee4c200:~/environment $
```



The screenshot shows the AWS Cloud9 IDE interface with two terminal windows. The first terminal window displays the following command and output:

```
pluralsight-4ee4c200:~/environment $ aws dynamodb query --table-name MovieCollection --key-condition-expression "ReleasedYear = :ry AND MovieTitle = :mt" --expression-attribute-values '{":ry": {"N": "2008"}, ":mt": {"S": "Iron Man"} }' --return-consumed-capacity TOTAL
{
  "Count": 0,
  "Items": [],
  "ScannedCount": 0,
  "ConsumedCapacity": {
    "CapacityUnits": 0.5,
    "TableName": "MovieCollection"
  }
}
```

The second terminal window displays the following command and output:

```
pluralsight-4ee4c200:~/environment $ aws dynamodb query --table-name MovieCollection --key-condition-expression "#Y = :y AND begins_with(#MT, :mt)" --expression-attribute-names '{ "#Y": "ReleasedYear", "#MT": "MovieTitle" }' --expression-attribute-values '{":y": {"N": "2008"}, ":mt": {"S": "I" } }' --return-consumed-capacity TOTAL
{
  "Count": 0,
  "Items": [],
  "ScannedCount": 0,
  "ConsumedCapacity": {
    "CapacityUnits": 0.5,
    "TableName": "MovieCollection"
  }
}
```

4. Review the Operations Done in Challenge 5 Using the AWS DynamoDB Console

us-west-2.console.aws.amazon.com/dynamodbv2/home?region=us-west-2#tables

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DynamoDB

- Dashboard
- Tables**
 - Update settings
 - Explore items
 - PartiQL editor [New](#)
 - Backups
 - Exports to S3
 - Reserved capacity
 - Preferences [New](#)
- ▼ DAX
 - Clusters
 - Subnet groups
 - Parameter groups
 - Events

DynamoDB > Tables

Tables (1) Info

Find tables by table name Any table tag < 1 > ⚙️

<input type="checkbox"/>	Name	Status	Partition key	Sort key	Indexes	Read capacity mode	Write capacity mode
<input type="checkbox"/>	MovieCollection	Active	ReleasedYear (N)	MovieTitle (S)	0	Provisioned (5)	Provisioned (5)

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us-west-2.console.aws.amazon.com/dynamodbv2/home?region=us-west-2#table?initialTagKey=&name=MovieCollection&tab=overview

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DynamoDB

- Dashboard
- Tables
 - Update settings**
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 - Preferences [New](#)
- ▼ DAX
 - Clusters
 - Subnet groups
 - Parameter groups
 - Events

DynamoDB > Tables > MovieCollection

Tables (1)

Any table tag Find tables by table name < 1 > ⚙️

MovieCollection

MovieCollection

Explore table items

< Overview Indexes Monitor Global tables Back >

General information

Partition key ReleasedYear (Number)	Sort key MovieTitle (String)
Capacity mode Provisioned	Table status Active No active alarms

► Additional info

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