

Westcon AWS

Database Starter Kit

Deployment Guide



Database Bundle – CloudFormation Deployment Guide

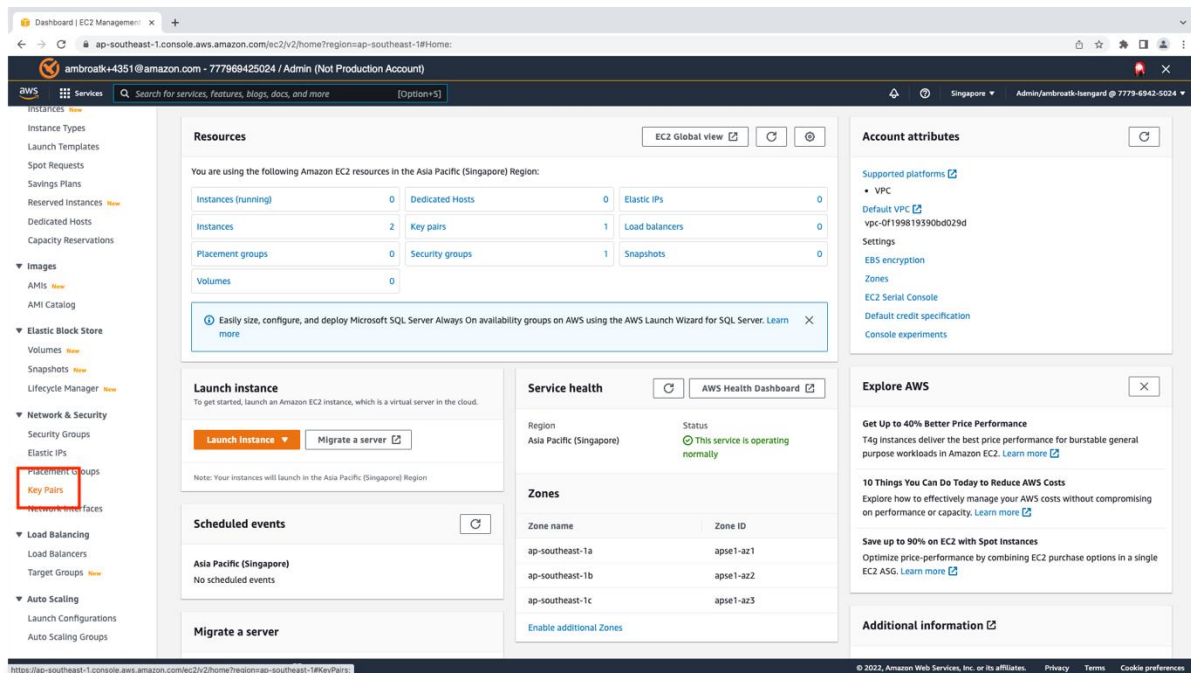
This guide is for the deployment of the **Database Bundle** using CloudFormation.

Pre-requisites

1. A VPC – please identify the VPC ID from the AWS Console
2. 2 x subnets within the VPC – please identify the Subnet ID’s – for the database subnet group (placement)

Creating an EC2 Key Pair

1. On the AWS console, navigate to the EC2 service.
2. Under Network and Security, click on “Key Pairs”.

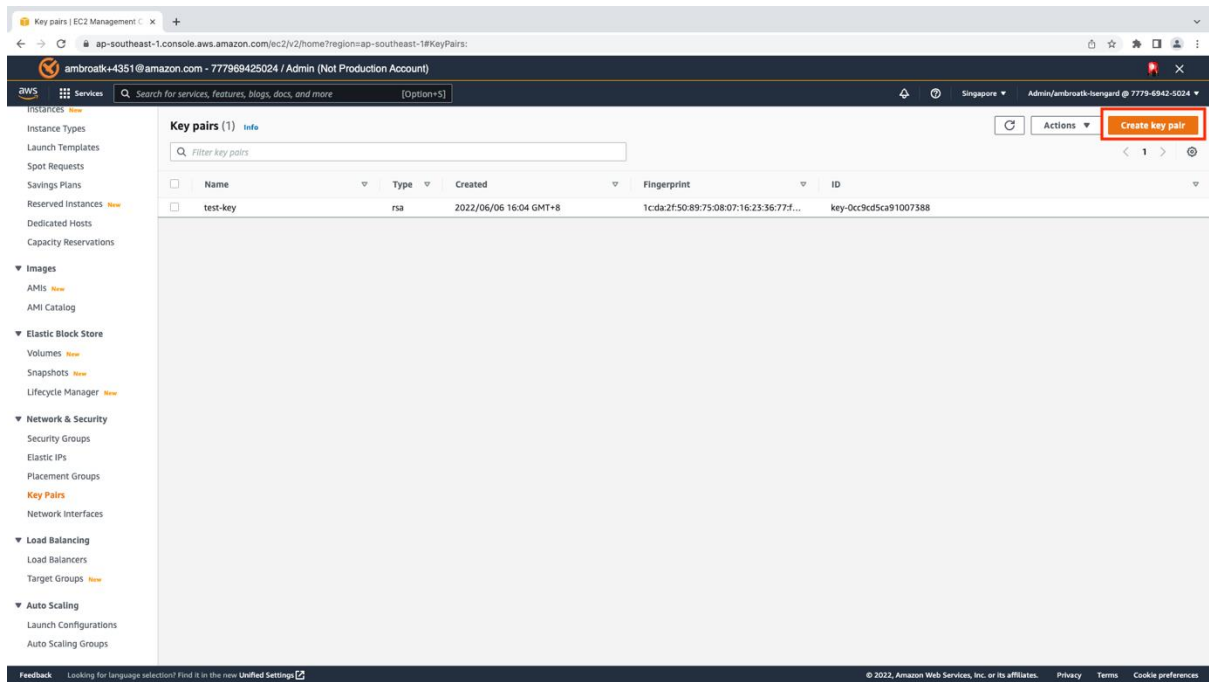


The screenshot shows the AWS Management Console interface for the EC2 service in the Asia Pacific (Singapore) region. The left-hand navigation menu is visible, with 'Key Pairs' highlighted under the 'Network & Security' section. The main content area displays 'Resources' for EC2, including a table of current resources and a 'Launch instance' section. The 'Key Pairs' link in the navigation menu is highlighted with a red box.

Resource	Count
Instances (running)	0
Instances	2
Placement groups	0
Volumes	0
Dedicated Hosts	0
Key pairs	1
Security groups	1
Elastic IPs	0
Load balancers	0
Snapshots	0

Zone name	Zone ID
ap-southeast-1a	apse1-az1
ap-southeast-1b	apse1-az2
ap-southeast-1c	apse1-az3

3. Click on “Create key pair” to continue.

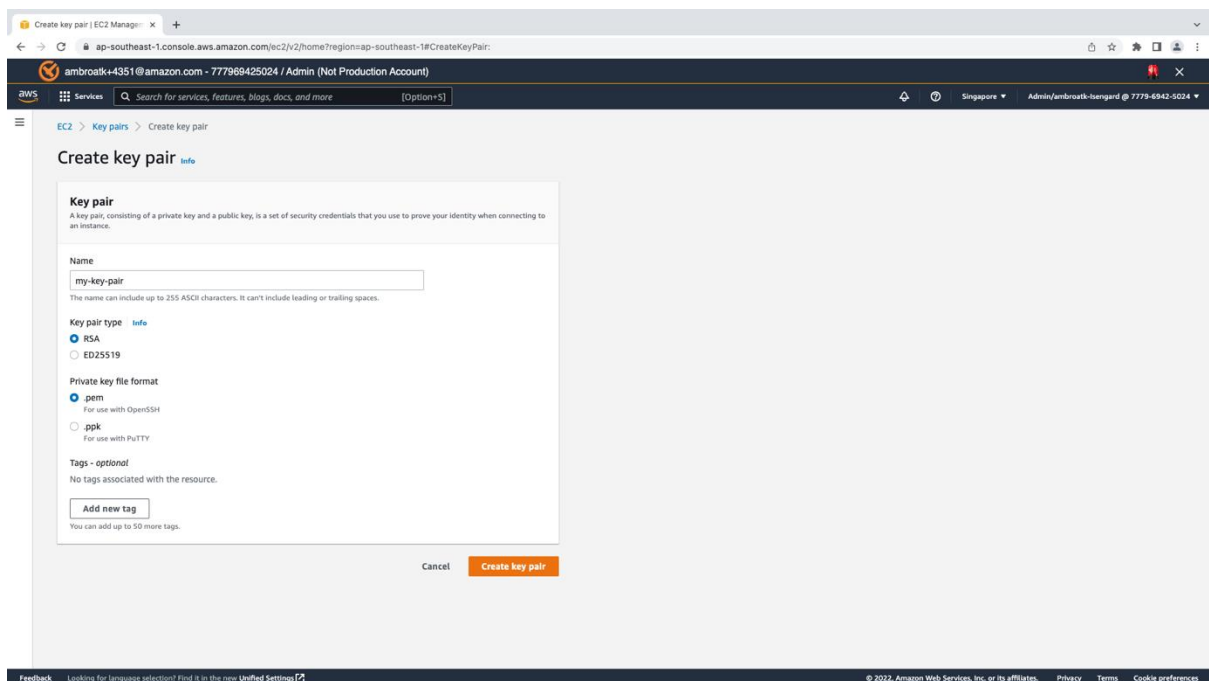


The screenshot shows the AWS Management Console interface for Key Pairs. The left-hand navigation pane is visible, with 'Key Pairs' highlighted under the 'Network & Security' section. The main content area displays a table with one key pair:

Name	Type	Created	Fingerprint	ID
test-key	rsa	2022/06/06 16:04 GMT+8	1cda2f50:89:75:08:07:16:23:36:77f...	key-0cc9d5ca91007388

An orange box highlights the 'Create key pair' button in the top right corner of the console.

4. Enter a name for the Key Pair. Ensure that the “RSA” type and “.pem” format is selected.
5. Click on “Create key pair”.



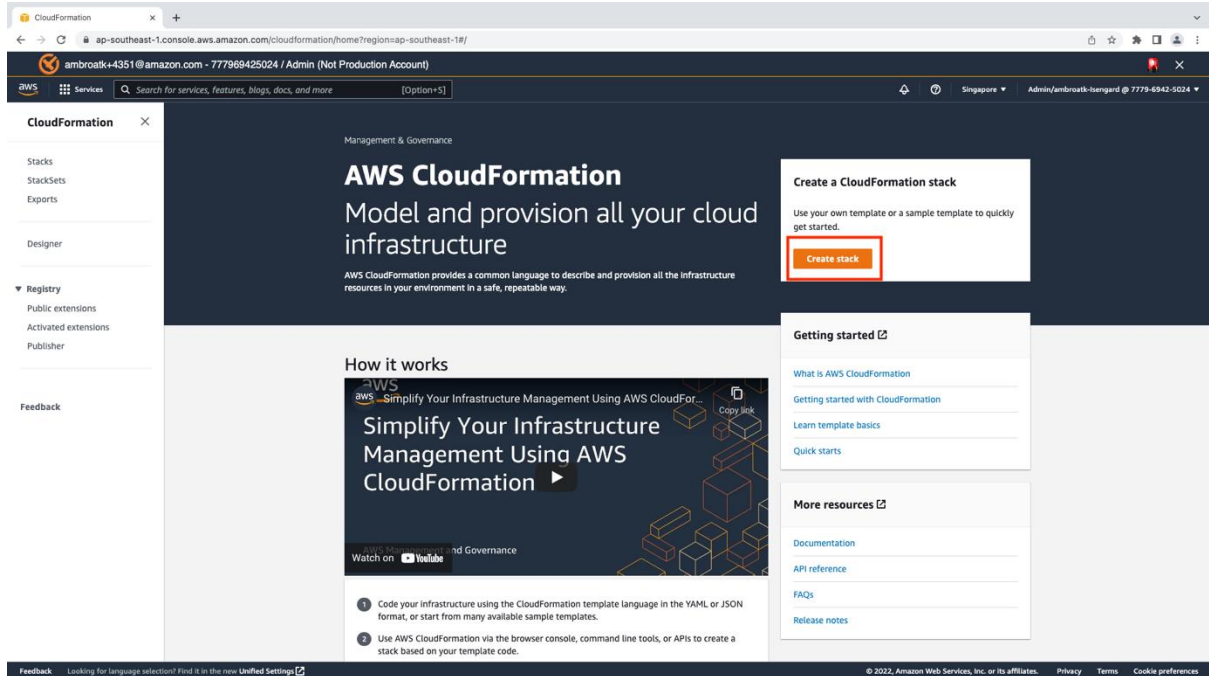
The screenshot shows the 'Create key pair' form in the AWS Management Console. The form includes the following fields and options:

- Name:** A text input field containing 'my-key-pair'.
- Key pair type:** Radio buttons for 'RSA' (selected) and 'ED25519'.
- Private key file format:** Radio buttons for 'pem' (selected), 'ppk', and 'pkcs8'.
- Tags - optional:** A section for adding tags, with an 'Add new tag' button.

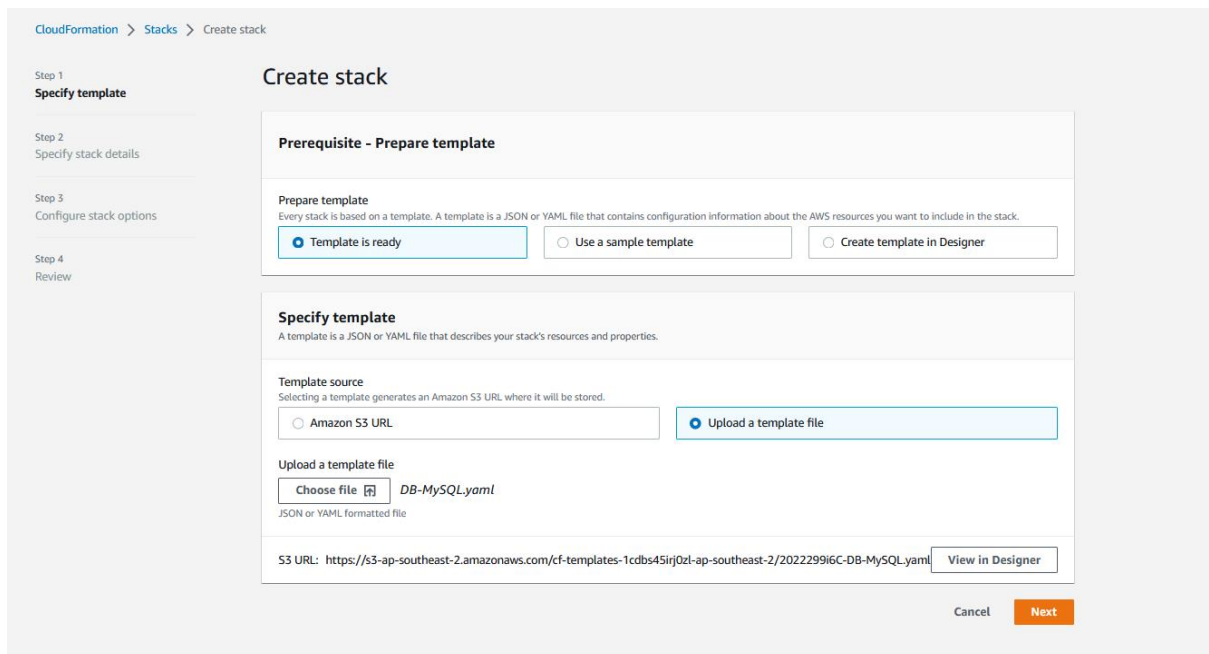
At the bottom of the form, there are 'Cancel' and 'Create key pair' buttons.

Deploying Template Using CloudFormation

1. On the AWS console, navigate to the CloudFormation service. Click “Create stack”.



2. Select “Upload a template file”
3. Click on “Choose File”, then select the bundle according to the engine that you want to deploy. Click “Next”.



4. In the next page, enter a name for the stack.
5. Key in the IP address from which you will connect to the Database
6. Select the Database server size: for SMALL server use t3.medium, for a MEDIUM server use m5.large, for a LARGE server use m5.xlarge.
7. Key in your Username and Password for the database
8. Key in the two subnet ID's on which you want this server to reside. It will reside in one only but it is for redundancy purposes if you need it in the future. Recommended is to have private subnets selected
9. Key in the VPC ID where you want to deploy this database

Stack name

Stack name can include letters (A-Z and a-z), numbers (0-9), and dashes (-).

Parameters

Parameters are defined in your template and allow you to input custom values when you create or update a stack.

ConnectionLocation

The source IP used to connect to the Database

DBInstanceType

Database instance type (for SMALL server use db.t3.medium, for a MEDIUM server use db.m5.large, for a LARGE server use db.m5.xlarge)

DBName

The database name

DBPassword

The database admin account password

DBUser

The database admin account username

SubnetA

First Subnet ID where the database can reside

SubnetB

Second Subnet ID where the database can reside

myVPC

The VPC ID of the database

Cancel Previous Next

10. Click “Next”.
11. In the “Configure Stack Option” click “Next”.
12. In the “Review Page” make sure that you allow the template to create custom IAM resources and then click “Submit”.

► Quick-create link

Capabilities

ⓘ The following resource(s) require capabilities: [AWS::CloudFormation::Stack]

This template contains Identity and Access Management (IAM) resources. Check that you want to create each of these resources and that they have the minimum required permissions. In addition, they have custom names. Check that the custom names are unique within your AWS account. [Learn more](#)

For this template, AWS CloudFormation might require an unrecognized capability: {0}. Check the capabilities of these resources. [Learn more](#)

I acknowledge that AWS CloudFormation might create IAM resources with custom names.

I acknowledge that AWS CloudFormation might require the following capability:
CAPABILITY_AUTO_EXPAND

Create change set Cancel Previous **Submit**

13. You will see then the template being deployed

CloudFormation > Stacks > DB-Bundle

Stacks (3)

Filter by stack name

Active View nested

- DB-Bundle**
2022-10-26 20:49:27 UTC+0800
CREATE_IN_PROGRESS
- Windows-VM-Bundle
2022-10-25 23:38:18 UTC+0800
CREATE_COMPLETE
- Network-Bundle
2022-10-24 23:21:17 UTC+0800
CREATE_COMPLETE

DB-Bundle

Delete Update Stack actions Create stack

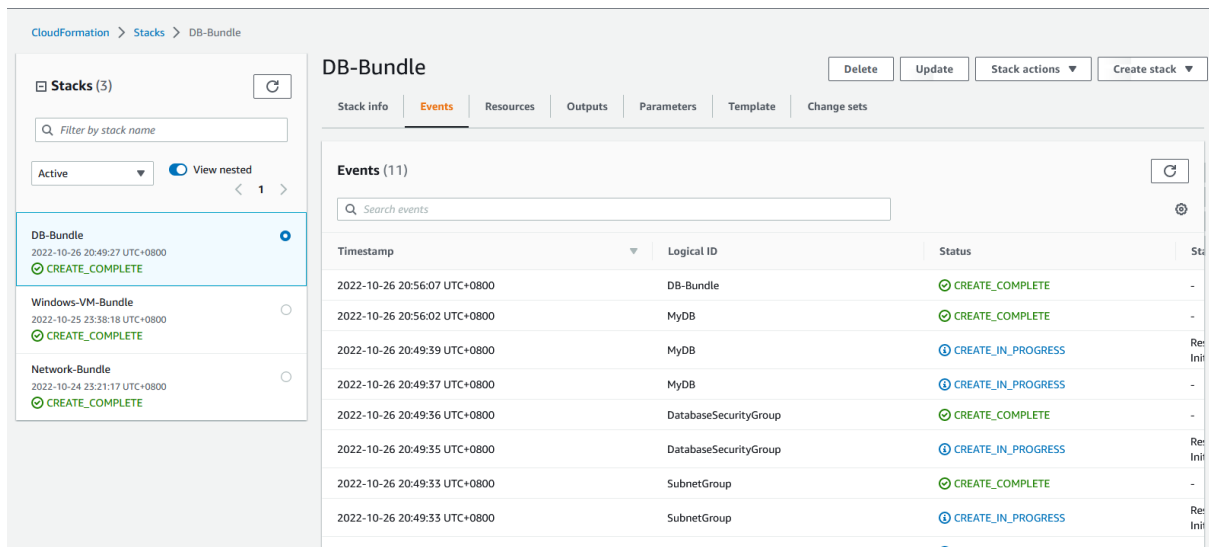
Stack info **Events** Resources Outputs Parameters Template Change sets

Events (1)

Search events

Timestamp	Logical ID	Status	Status
2022-10-26 20:49:27 UTC+0800	DB-Bundle	CREATE_IN_PROGRESS	User In

14. Wait for all the resources to be created. Press the refresh button on the top right until the stack creation is complete.



CloudFormation > Stacks > DB-Bundle

Stacks (3)

Filter by stack name

Active View nested

DB-Bundle
2022-10-26 20:49:27 UTC+0800
CREATE_COMPLETE

Windows-VM-Bundle
2022-10-25 23:38:18 UTC+0800
CREATE_COMPLETE

Network-Bundle
2022-10-24 23:21:17 UTC+0800
CREATE_COMPLETE

DB-Bundle

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

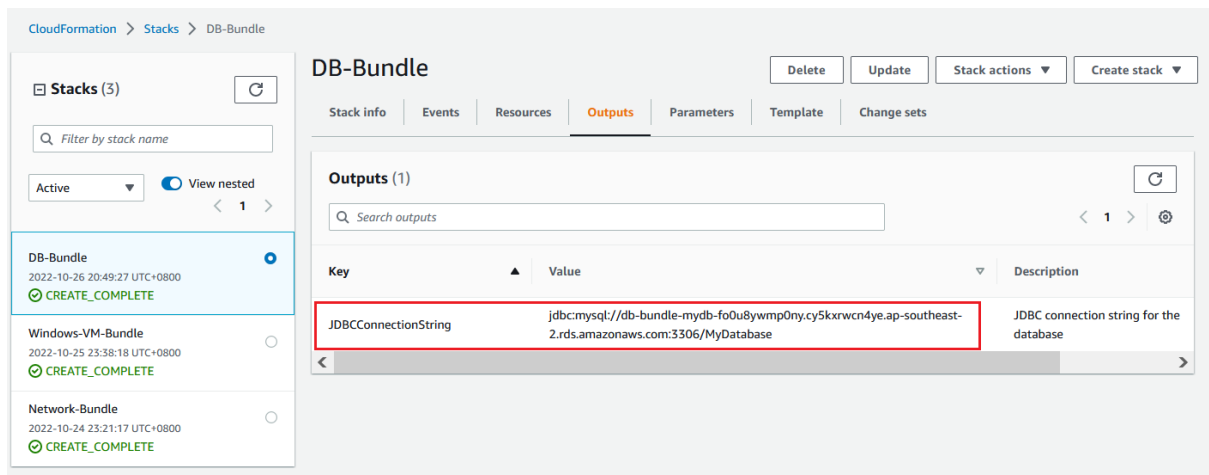
Events (11)

Search events

Timestamp	Logical ID	Status
2022-10-26 20:56:07 UTC+0800	DB-Bundle	CREATE_COMPLETE
2022-10-26 20:56:02 UTC+0800	MyDB	CREATE_COMPLETE
2022-10-26 20:49:39 UTC+0800	MyDB	CREATE_IN_PROGRESS
2022-10-26 20:49:37 UTC+0800	MyDB	CREATE_IN_PROGRESS
2022-10-26 20:49:36 UTC+0800	DatabaseSecurityGroup	CREATE_COMPLETE
2022-10-26 20:49:35 UTC+0800	DatabaseSecurityGroup	CREATE_IN_PROGRESS
2022-10-26 20:49:33 UTC+0800	SubnetGroup	CREATE_COMPLETE
2022-10-26 20:49:33 UTC+0800	SubnetGroup	CREATE_IN_PROGRESS

15. The created stack should look like this. All the resources have now been created and deployed.

16. Click on the “Outputs” tab to retrieve the database endpoint



CloudFormation > Stacks > DB-Bundle

Stacks (3)

Filter by stack name

Active View nested

DB-Bundle
2022-10-26 20:49:27 UTC+0800
CREATE_COMPLETE

Windows-VM-Bundle
2022-10-25 23:38:18 UTC+0800
CREATE_COMPLETE

Network-Bundle
2022-10-24 23:21:17 UTC+0800
CREATE_COMPLETE

DB-Bundle

Delete Update Stack actions Create stack

Stack info Events Resources Outputs Parameters Template Change sets

Outputs (1)

Search outputs

Key	Value	Description
JDBCConnectionString	jdbc:mysql://db-bundle-mydb-fo0u8ywp0ny.cy5kxrcwn4ye.ap-southeast-2.rds.amazonaws.com:3306/MyDatabase	JDBC connection string for the database

17. Use the jdbc connection string to connect to the database from your application.



Have a question?

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