

Ref Card 03 mit RDS Mysql Datenbank

Projektbeschreibung

Das Ref-Card-03-Projekt ist ein Docker-Utility, das Entwicklern ermöglicht, Docker-Container mit dem NGINX-Webserver und einer einfachen HTML-Datei bereitzustellen.

Voraussetzungen

Betriebssystem: Das Ref-Card-03-Projekt kann auf Linux (WSL) ausgeführt werden. Docker: Stellen Sie sicher, dass Docker auf Ihrem System installiert ist und Sie die erforderlichen Berechtigungen haben, um Docker-Container auszuführen.

Git Repository herunterladen

Github Repository: <https://github.com/masluse/ref-card-03>

Klonen Sie das Repository auf Ihren lokalen Computer und navigieren Sie in das Projektverzeichnis:

```
git clone https://github.com/masluse/ref-card-03
cd ref-card-03
```

RDS Instanz Erstellen

Um die RDS Instanz zu erstellen kann man den folgenden Schritten folgen:

Änderungen:

- Engine type = MariaDB
- Templates = Free tier

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

ORACLE®

☐ Microsoft SQL Server



▼ Hide filters



Show versions that support the Amazon RDS Optimized Writes [Info](#)

Amazon RDS Optimized Writes improves write throughput by up to 2x at no additional cost.

Engine Version

MariaDB 10.6.12



Templates

Choose a sample template to meet your use case.

☐ Production

Use defaults for high

☐ Dev/Test

This instance is intended for

☒ Free tier

Use RDS Free Tier to develop

Änderungen:

- DB instance identifier = jokedb
- Master username = 'Username'
- Master password = 'Password'
- Confirm master password = 'Password'

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.

☐ **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](#)



Show instance classes that support Amazon RDS Optimized Writes

DB instance class [Info](#)

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

Änderungen:

- Public access = Yes
- VPC security group = 3306 von deinem Client aus erreichbar

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.

Network type [Info](#)

To use dual-stack mode, make sure that you associate an IPv6 CIDR block with a subnet in the VPC you specify.

- ☒ **IPv4**
Your resources can communicate only over the IPv4 addressing protocol.


- ☐ **Dual-stack mode**
Your resources can communicate over IPv4, IPv6, or both.

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

Choose the VPC. The VPC defines the virtual networking environment for this DB instance.

Default VPC (vpc-024bc4324da2cc619)
6 Subnets, 6 Availability Zones

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.

default-vpc-024bc4324da2cc619
6 Subnets, 6 Availability Zones

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 your database. Resources inside the VPC can also connect to the database. Choose one or more VPC security groups that specify which resources can connect to the database.
- ☐ **No**
RDS doesn't assign a public IP address to the database. Only Amazon EC2 instances and other resources inside the VPC can connect to your database. Choose one or more VPC security groups that specify which resources can connect to the database.

VPC security group (firewall) [Info](#)

Choose one or more VPC security groups to allow access to your database. Make sure 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 one or more options

DB X

Availability Zone [Info](#)

No preference

Änderungen:

- Initial database name = jokedb

▼ **Additional configuration**

Database options, encryption turned on, backup turned on, backtrack turned off, maintenance, CloudWatch Logs, delete protection turned off.

Database options

Initial database name [Info](#)

jokedb

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

DB parameter group [Info](#)

default.mariadb10.6 ▼

Option group [Info](#)

default:mariadb-10-6 ▼

Git Repository umkonfigurieren

Änderungen:

- Endpoint in docker-compose.yml hinzufügen
- DB-USERNAME = 'Username' und DB_PASSWORD = 'Password' anpassen

```
dockerfile: Dockerfile
ports:
- 8080:8080
environment:
DB_URL: jdbc:mariadb://jokedb.ca574jaewyqv.us-east-1.rds.amazonaws.com:3306/jokedb
DB_USERNAME: jokedbuser
DB_PASSWORD: 12345678
```

Testen

docker compose up


```
[+] [0935] Found orphan containers ([ref-card-03-phppayadmin-1 ref-card-03-database-1]) for this project. If you removed or renamed this service in your compose file, you can run this command with the --remove-orphan flag to clean it up.
```

```
[+] Running 1/1
   Container ref-card-03-spring-1 Recreated
Attaching to ref-card-03-spring-1
```

```
ref-card-03-spring-1 |
ref-card-03-spring-1 |      ____          _            ____ _  ___
ref-card-03-spring-1 |     /  _ \        / \          /  _ \|_|_ \
ref-card-03-spring-1 |    /  __ \       /  \         /  __ \|_ \|
ref-card-03-spring-1 |   /  ___ \      /___\        /  ___ \|__)/
ref-card-03-spring-1 |  /  /  ___ \    /___/         /  /  ___ \|
ref-card-03-spring-1 | /  /  /  ___ \  /___/         /  /  /  ___ \|
ref-card-03-spring-1 |/_/  /  /  ___ \/_/           /_/  /  /  ___ \|
ref-card-03-spring-1 |/_/  /  /  ___ \/_/           /_/  /  /  ___ \|
ref-card-03-spring-1 |:: Spring Boot ::                (v2.7.0)
ref-card-03-spring-1 |
2023-05-22 20:02:11.334 INFO 1 --- [main] c.b.a.ArchitectureRefCard03Application : Starting ArchitectureRefCard03Application v0.8.1-SNAPSHOT using Java 17.0.2 on 71deae5f2d8d with PID 1 (/app.jar started by root in /)
ref-card-03-spring-1 | 2023-05-22 20:02:11.336 INFO 1 --- [main] c.b.a.ArchitectureRefCard03Application : No active profile set, falling back to 1 default profile: "default"ref-card-03-spring-1 | 2023-05-22 20:02:11.822 INFO 1 --- [main] .s.d.r.c.RepositoryConfigurationDelegate : Bootstrapping Spring Data JPA repositories in DEFAULT mode.
ref-card-03-spring-1 | 2023-05-22 20:02:11.854 INFO 1 --- [main] .s.d.r.c.RepositoryConfigurationDelegate : Finished Spring Data repository scanning in 26 ms. Found 1 JPA repository interfaces.
ref-card-03-spring-1 | 2023-05-22 20:02:12.259 INFO 1 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat initialized with port(s): 8888 (http)
ref-card-03-spring-1 | 2023-05-22 20:02:12.267 INFO 1 --- [main] o.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/9.0.63]
ref-card-03-spring-1 | 2023-05-22 20:02:12.267 INFO 1 --- [main] org.apache.catalina.core.StandardEngine : Starting Servlet engine: [Apache Tomcat/9.0.63]
ref-card-03-spring-1 | 2023-05-22 20:02:12.314 INFO 1 --- [main] o.a.c.e.c.[Tomcat].[localhost].[/] : Initializing Spring embedded WebApplicationContext
ref-card-03-spring-1 | 2023-05-22 20:02:12.315 INFO 1 --- [main] w.s.c.ServletWebServerApplicationContext : Root WebApplicationContext: initialization completed in 938 ms
ref-card-03-spring-1 | 2023-05-22 20:02:12.385 INFO 1 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Starting...
ref-card-03-spring-1 | 2023-05-22 20:02:13.089 INFO 1 --- [main] com.zaxxer.hikari.HikariDataSource : HikariPool-1 - Start completed.
ref-card-03-spring-1 | 2023-05-22 20:02:14.474 INFO 1 --- [main] o.hibernate.jpa.internal.util.LogHelper : HHN000204: Processing PersistenceUnitInfo [name: default]
ref-card-03-spring-1 | 2023-05-22 20:02:14.503 INFO 1 --- [main] org.hibernate.Version : HHN000012: Hibernate ORM core version 5.6.9.Final
ref-card-03-spring-1 | 2023-05-22 20:02:14.601 INFO 1 --- [main] o.hibernate.annotations.common.Version : HCANN000003: Hibernate Commons Annotations {5.12.2.Final}
ref-card-03-spring-1 | 2023-05-22 20:02:14.668 INFO 1 --- [main] org.hibernate.dialect.Dialect : HHN000048: Using dialect: org.hibernate.dialect.MySQL8Dialect
ref-card-03-spring-1 | 2023-05-22 20:02:15.147 INFO 1 --- [main] o.h.e.t.j.p.i.JtaPlatformInitiator : HHN000098: Using JtaPlatform implementation: [org.hibernate.engine.transaction.jta.platform.internal.NoJtaPlatform]
orm.internal.NoJtaPlatform]
ref-card-03-spring-1 | 2023-05-22 20:02:15.152 INFO 1 --- [main] j.LocalContainerEntityManagerFactoryBean : Initialized JPA EntityManagerFactory for persistence unit 'default'ref-card-03-spring-1 | 2023-05-22 20:02:15.422 WARN 1 --- [main] JpaBaseConfigurationJpaWebConfiguration : spring.jpa.open-in-view is enabled by default. Therefore, database queries may be performed during view rende
ring. Explicitly configure spring.jpa.open-in-view to disable this warning
ref-card-03-spring-1 | 2023-05-22 20:02:15.623 INFO 1 --- [main] o.s.b.a.w.s.WelcomePageHandlerMapping : Adding welcome page templates: index
ref-card-03-spring-1 | 2023-05-22 20:02:15.872 INFO 1 --- [main] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8888 (http) with context path '/'
ref-card-03-spring-1 | 2023-05-22 20:02:15.884 INFO 1 --- [main] c.b.a.ArchitectureRefCard03Application : Started ArchitectureRefCard03Application in 4.865 seconds (JVM running for 5.187)
ref-card-03-spring-1 | 2023-05-22 20:02:23.082 INFO 1 --- [nio-8080-exec-1] o.a.c.e.c.[Tomcat].[localhost].[/] : Initializing Spring DispatcherServlet 'dispatcherServlet'
ref-card-03-spring-1 | 2023-05-22 20:02:23.082 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'
ref-card-03-spring-1 | 2023-05-22 20:02:23.083 INFO 1 --- [nio-8080-exec-1] o.s.web.servlet.DispatcherServlet : Completed Initialization in 1 ms
```

localhost:8080

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Architecture Ref. Card 03

Spring Application with JPA/Database (MariaDB)

Witz 1

Rating: 5

Kunde: "Ich möchte Ihren Chef sprechen!" Sekretärin: "Geht leider nicht, er ist nicht da!" Kunde: "Ich hab ihn doch durchs Fenster gesehen!" Sekretärin: "Er Sie auch!"

2014-01-08, Flachwitze

Witz 2

Rating: 3

Der Verwaltungsrat zum CEO: "Na, wie macht sich denn der neue Buchhalter?" CEO: "Toll, dieser Mann!" Verwaltungsrat: "Was kann er denn so besonderes?" CEO: "Er ist gelernter Friseur, er kann frisieren!"

2014-01-08, Flachwitze

Witz 3

Rating: 5

Chef: "Müller, Sie sind das beste Pferd in meinem Stall!" Müller: "Wirklich, Chef?" Chef: "Ja, Sie machen den meisten Mist!"

2014-01-08, Flachwitze

Witz 6

Rating: 3

Was steht auf dem Grabstein eines Mathematikers? "Damit hat er nicht gerechnet."

2021-04-06, Schwarzer Humor

