

Step-by-Step Guide: Deploy GitHub Project to Railway with MySQL

1) Deploy your GitHub repo to Railway

- Log in to Railway → New Project → Deploy from GitHub repo → pick your repo.
- The service builds automatically. If your app needs env vars, click Add variables before the first deploy.

2) Add a MySQL database on Railway

- In the same project canvas, click + New → Database → MySQL → Deploy.
- Open the MySQL service → Variables. Railway exposes: MYSQLHOST, MYSQLPORT, MYSQLUSER, MYSQLPASSWORD, MYSQLDATABASE, MYSQL_URL.
- You can also connect from outside Railway via TCP proxy.

3) Decide the database name

Option A: Use the default DB provisioned by Railway. Set DB_DATABASE to MYSQLDATABASE.

Option B: Create your own database name (e.g., iot-apps1).

Example SQL (via client/Workbench):

```
CREATE DATABASE IF NOT EXISTS `iot-apps1` CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
```

4) Wire your app service to the MySQL service (Reference Variables)

Add in App service → Variables:

```
DB_HOST=${{ mysql.MYSQLHOST }}
DB_PORT=${{ mysql.MYSQLPORT }}
DB_USERNAME=${{ mysql.MYSQLUSER }}
DB_PASSWORD=${{ mysql.MYSQLPASSWORD }}
DB_DATABASE=iot-apps1 (or ${{ mysql.MYSQLDATABASE }})
```

Framework Examples:

- Laravel:

```
APP_KEY=...
DB_CONNECTION=mysql
DB_HOST=${{ mysql.MYSQLHOST }}
DB_PORT=${{ mysql.MYSQLPORT }}
DB_DATABASE=iot-apps1
DB_USERNAME=${{ mysql.MYSQLUSER }}
DB_PASSWORD=${{ mysql.MYSQLPASSWORD }}
LOG_CHANNEL=errorlog
```

- Node (Prisma/Sequelize):

```
DATABASE_URL=${{ mysql.MYSQL_URL }}
or discrete MYSQLHOST, MYSQLPORT, MYSQLUSER, MYSQLPASSWORD,
MYSQLDATABASE.
```

- Django:

```
DATABASE_URL=${{ mysql.MYSQL_URL }}
```

5) Run migrations automatically

Railway does not allow interactive shell. Use Pre-Deploy Command.

- Laravel: php artisan migrate --force
- Prisma: npx prisma migrate deploy
- Django: python manage.py migrate

6) Give your app a public URL

App service → Settings → Networking → Generate Domain.

7) Troubleshooting

- getaddrinfo ENOTFOUND → ensure DB_HOST={{ mysql.MYSQLHOST }}
- Connection refused → confirm DB_PORT and service running.
- Migrations not run → ensure Pre-Deploy commands are set.

Quick Copy-Paste Blocks:

If DB_DATABASE=iot-apps1:

```
DB_HOST={{ mysql.MYSQLHOST }}  
DB_PORT={{ mysql.MYSQLPORT }}  
DB_USERNAME={{ mysql.MYSQLUSER }}  
DB_PASSWORD={{ mysql.MYSQLPASSWORD }}  
DB_DATABASE=iot-apps1
```

If using default DB:

```
DB_HOST={{ mysql.MYSQLHOST }}  
DB_PORT={{ mysql.MYSQLPORT }}  
DB_USERNAME={{ mysql.MYSQLUSER }}  
DB_PASSWORD={{ mysql.MYSQLPASSWORD }}  
DB_DATABASE={{ mysql.MYSQLDATABASE }}
```