JAVA App Deployment on Railway

Why Railway ?

Railway : About

Railway is a deployment platform where you can provision infrastructure, develop with that infrastructure locally, and then deploy to the cloud.

Compared to Heroku

Railway is a simple and powerful deployment platform that focuses on giving you and your team a deployment plane that radically increases developer efficiency.

It is alike in the following ways:

- GitHub repo deployments
- CLI tooling
- Built-in databases

It differs in the following:

- It has an outsized focus on support and developer experience. A highly engaged community and the Railway team stand at the ready to help you scale
- Resource-based pricing, only pay for what you use.
- Better developer experience. We offer PR deploys, variable management, rapid builds, and local development flows.

Guide: To Deploy JAVA Springboot Application with Database

Changes to be made in JAVA Project Before Deployment.

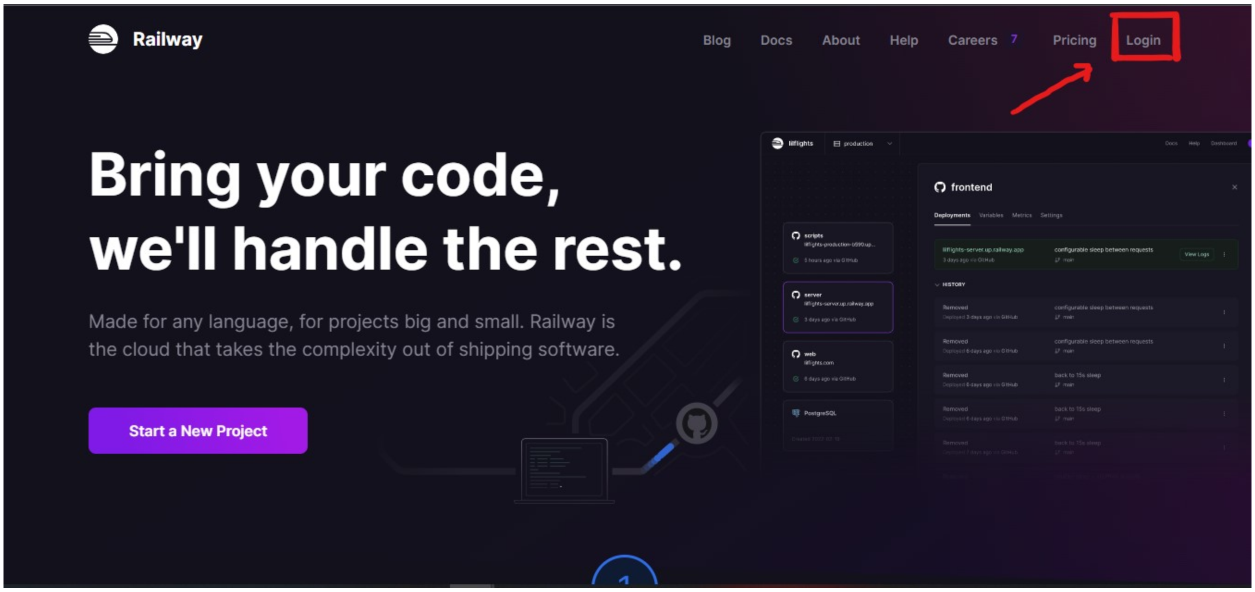
Adding Environment Variables to Application.properties

```
spring.datasource.url=jdbc:mysql://${DB_HOST:localhost}:${DB_PORT:3306}/${DB_NAME:masaidb}
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
spring.datasource.username=${DB_USERNAME:root}
spring.datasource.password=${DB_PASSWORD:root}




#ORM s/w specific properties
spring.jpa.hibernate.ddl-auto=update
spring.jpa.show-sql=true
```

- After doing the above change in application.properties file, You need to push to your github repo.
- NOTE: Repository should be public.

Deployment in Railway.

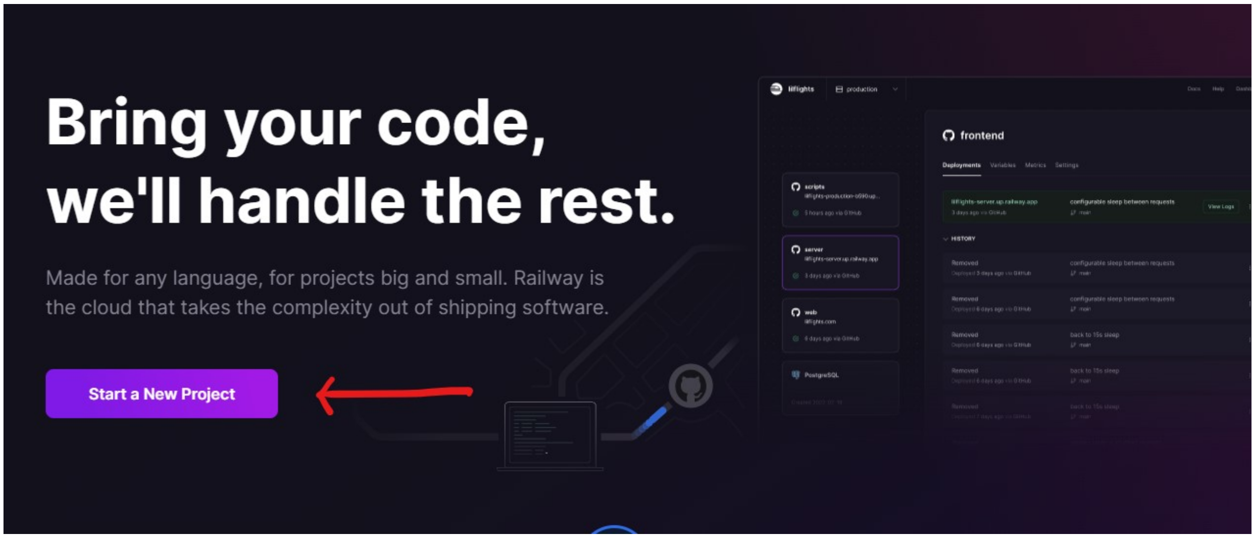
- Visit https://railway.app/
- Login [You can login using github account]



Bring your code, we'll handle the rest.

Made for any language, for projects big and small. Railway is the cloud that takes the complexity out of shipping software.

- Click on “Start a new Project”



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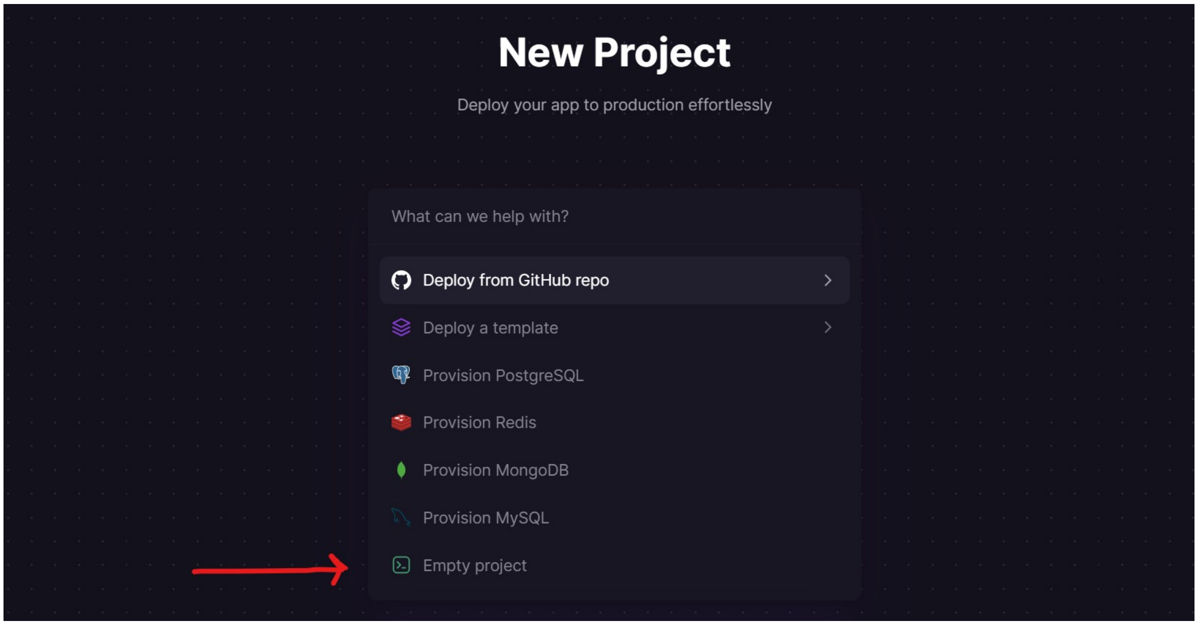
- Click on “Empty Project”

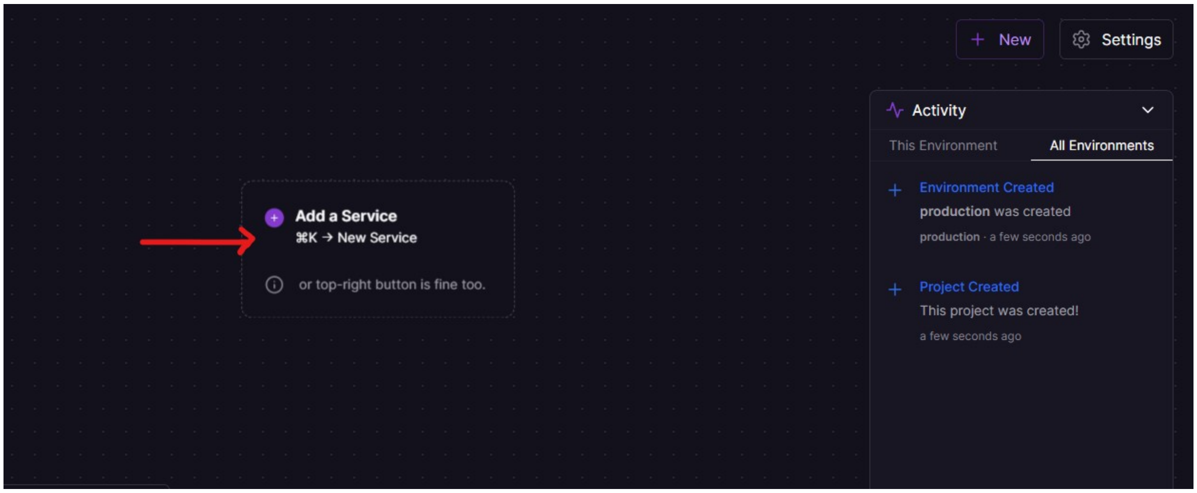


New Project

Deploy your app to production effortlessly

What can we help with?

- Click on “Add a Service”



Add a Service

⌘K → New Service

or top-right button is fine too.

Activity

Environment Created

production was created

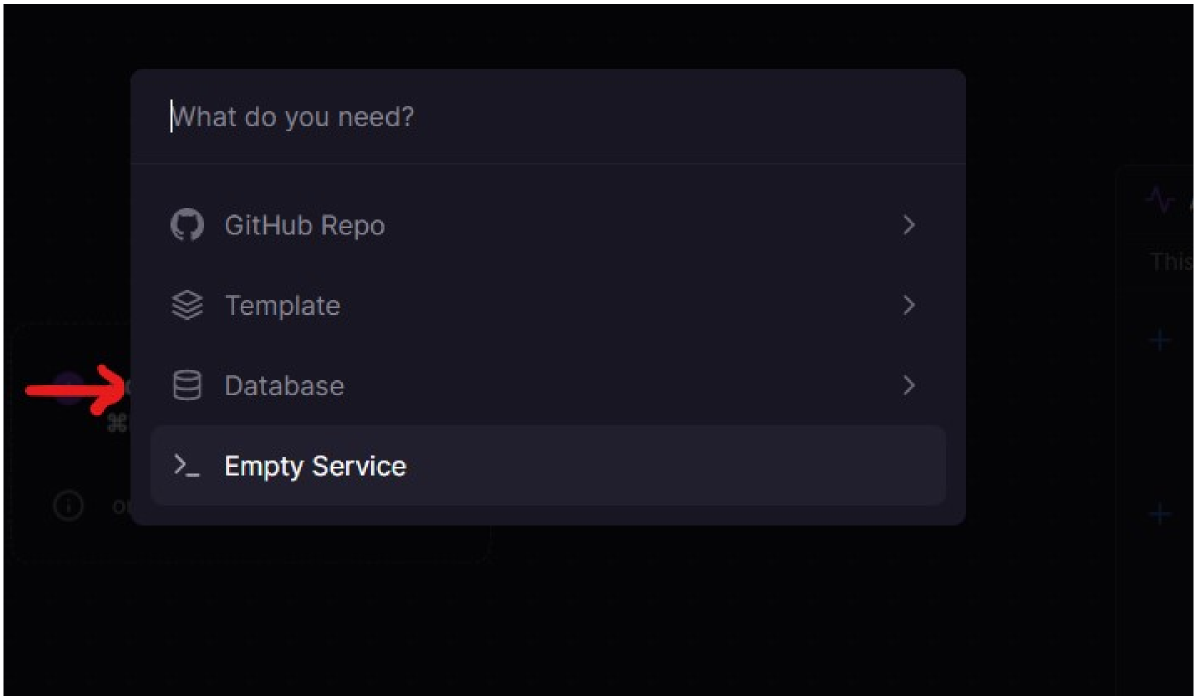
production · a few seconds ago

Project Created

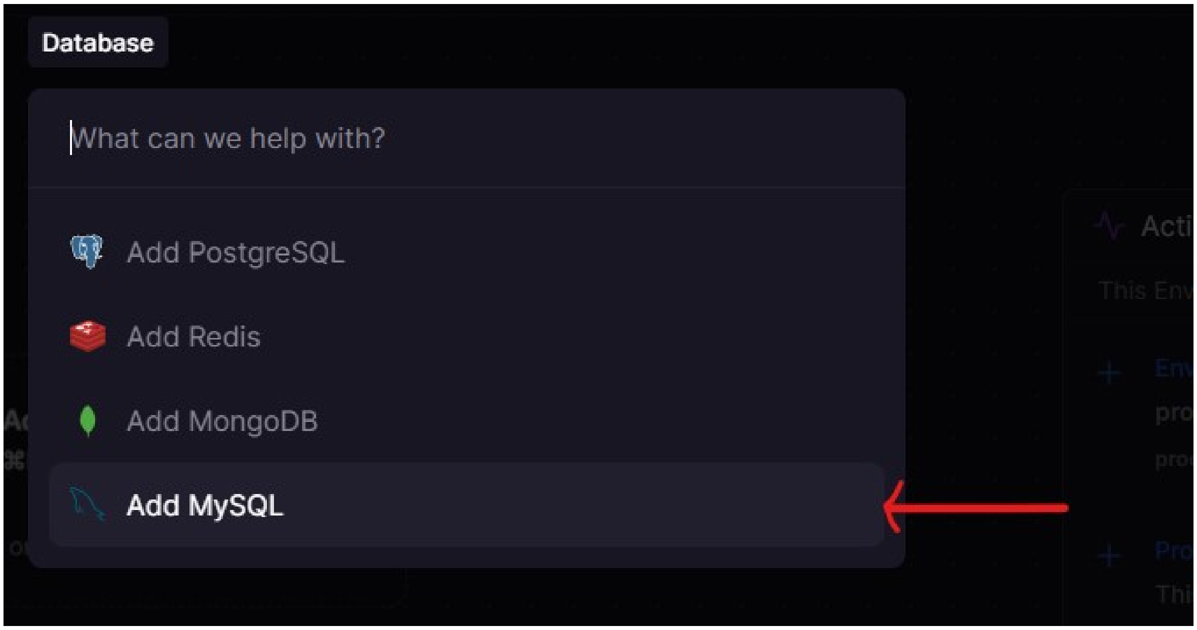
This project was created!

a few seconds ago

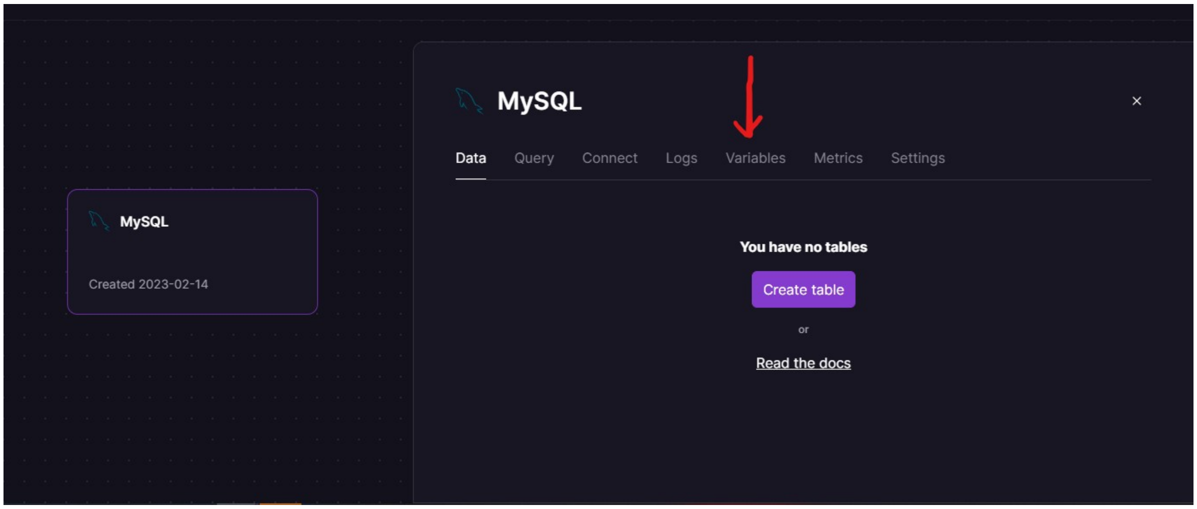
- Click on “Database”



- Select “Add MySQL”

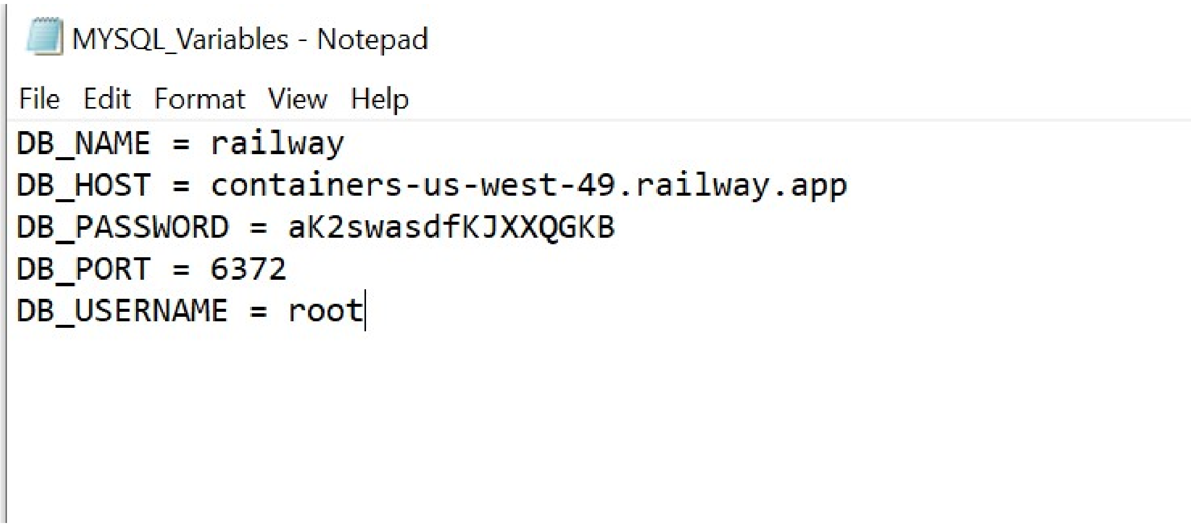


- Once MySQL Database is created, go to “Variables”



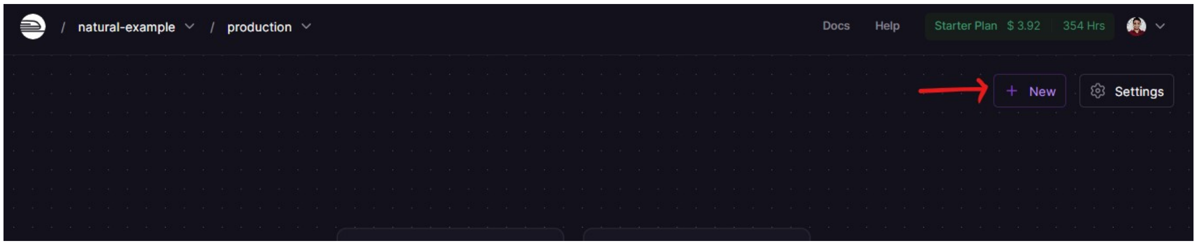
You have no tables

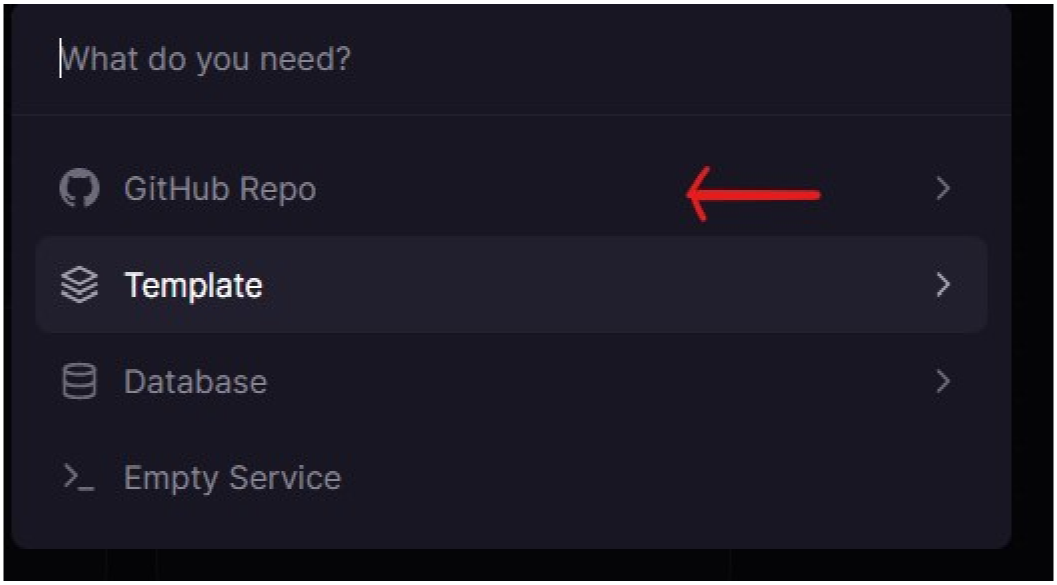
- Copy those MySQL Variables into a notepad in the given format



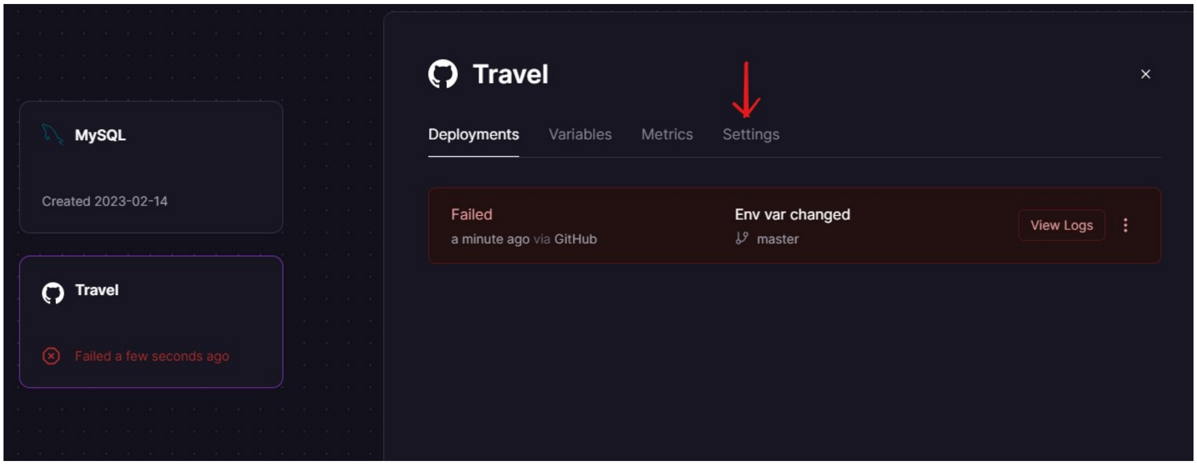
```
DB_NAME = railway
DB_HOST = containers-us-west-49.railway.app
DB_PASSWORD = aK2swasdfKJXXQGKB
DB_PORT = 6372
DB_USERNAME = root
```

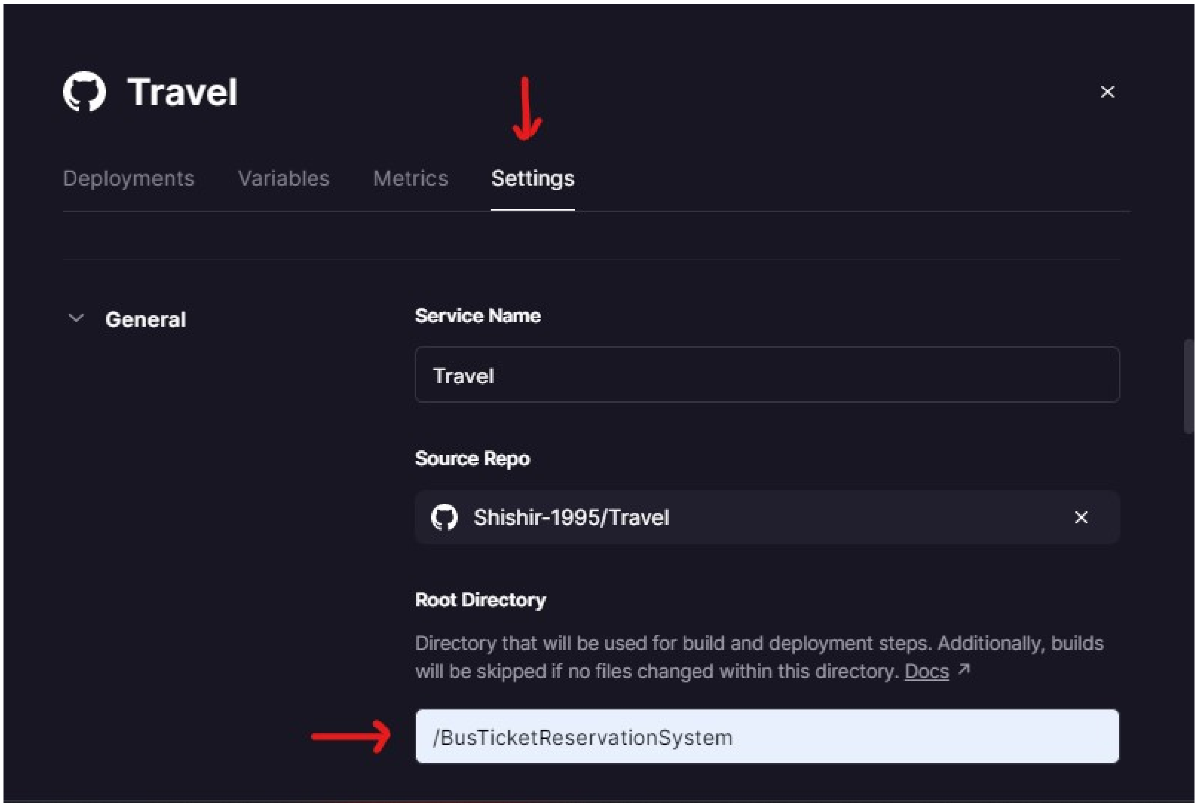
- Once done with MySQL Variable, Click on “+ New” and select your Github Repo [You can Select “Configure Github repo” then Configure the repo for which you want to deploy the project]





- If your Project is not present in the root folder and is present in some other folder, then select “Setting” and go to “General” and Select your “Root Directory” [Directory with pom.xml file]





Service Name: Travel

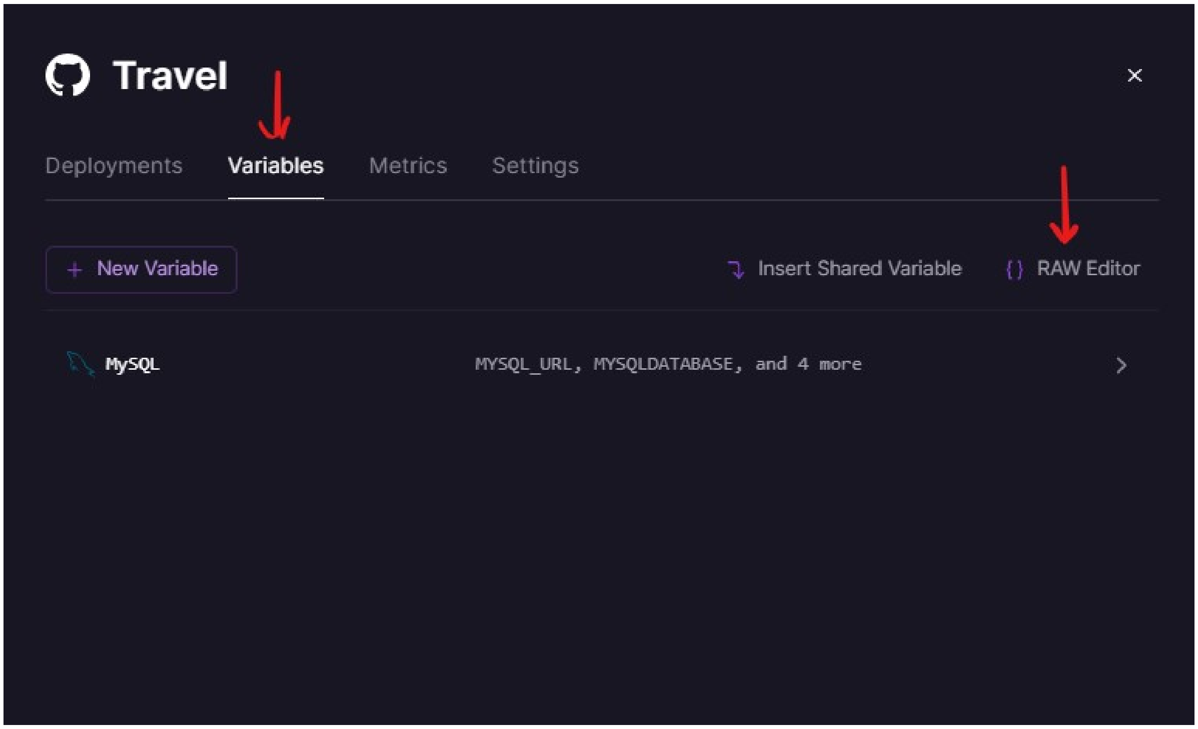
Source Repo: Shishir-1995/Travel

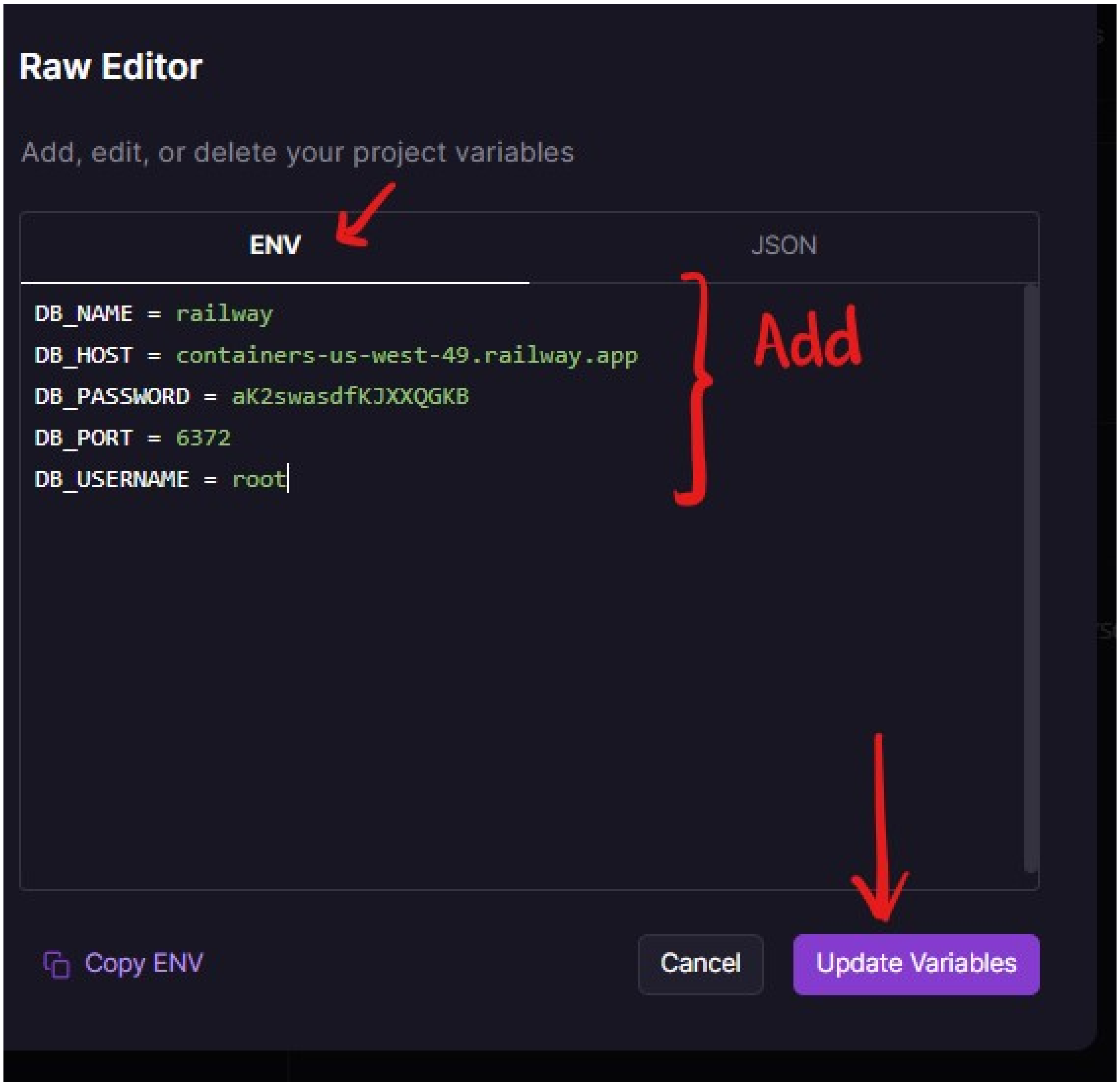
Root Directory

Directory that will be used for build and deployment steps. Additionally, builds will be skipped if no files changed within this directory. Docs ↗

/BusTicketReservationSystem

- Once Root Directory is selected, then go to “Variables” and select “Raw Editor” and add the Variables you noted previously. [You can copy from notepad and Paste it also]. Then click on “Update Variable”


Travel
Deployments
Variables
Metrics
Settings
+ New Variable
Insert Shared Variable
{} RAW Editor
MySQL
MYSQL_URL, MYSQLDATABASE, and 4 more



```
DB_NAME = railway
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DB_PASSWORD = aK2swasdfKJXXQGKB
DB_PORT = 6372
DB_USERNAME = root
```
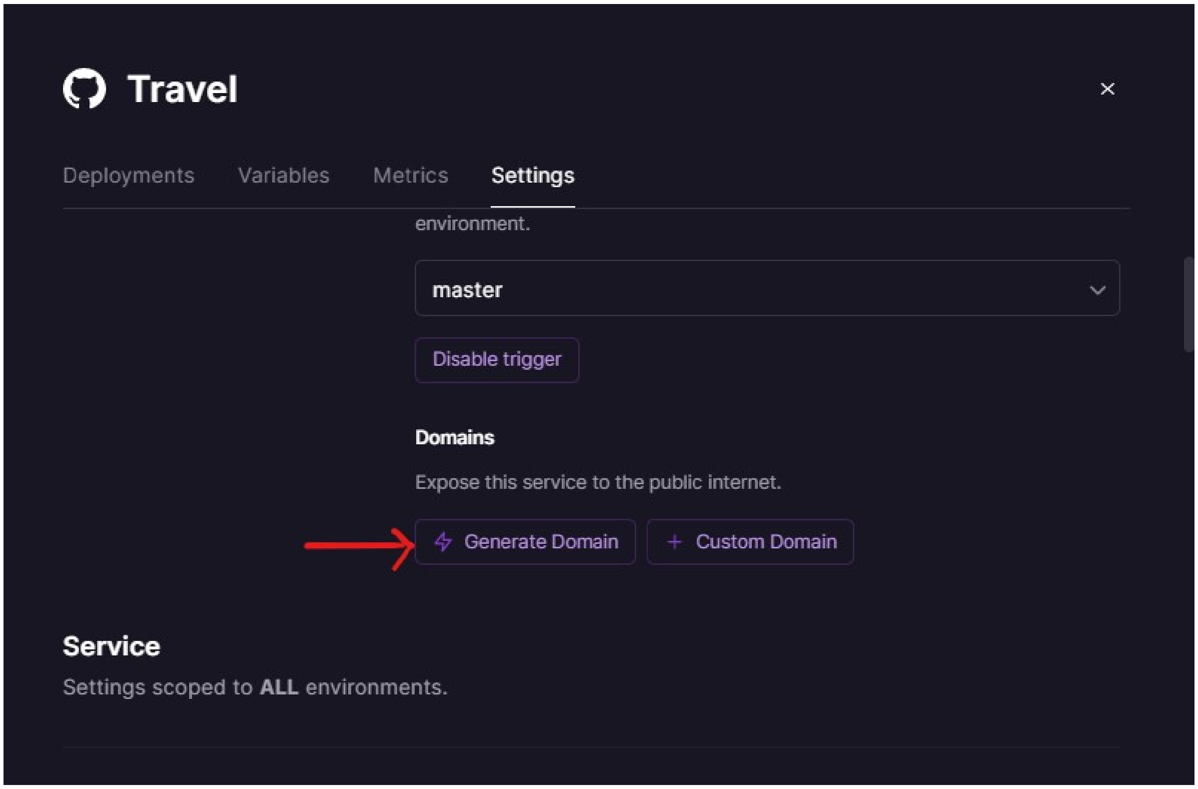

- Then you can go to “Setting”, Choose to “Generate Domain” and the link generated is the link where your JAVA Project is deployed.



environment.

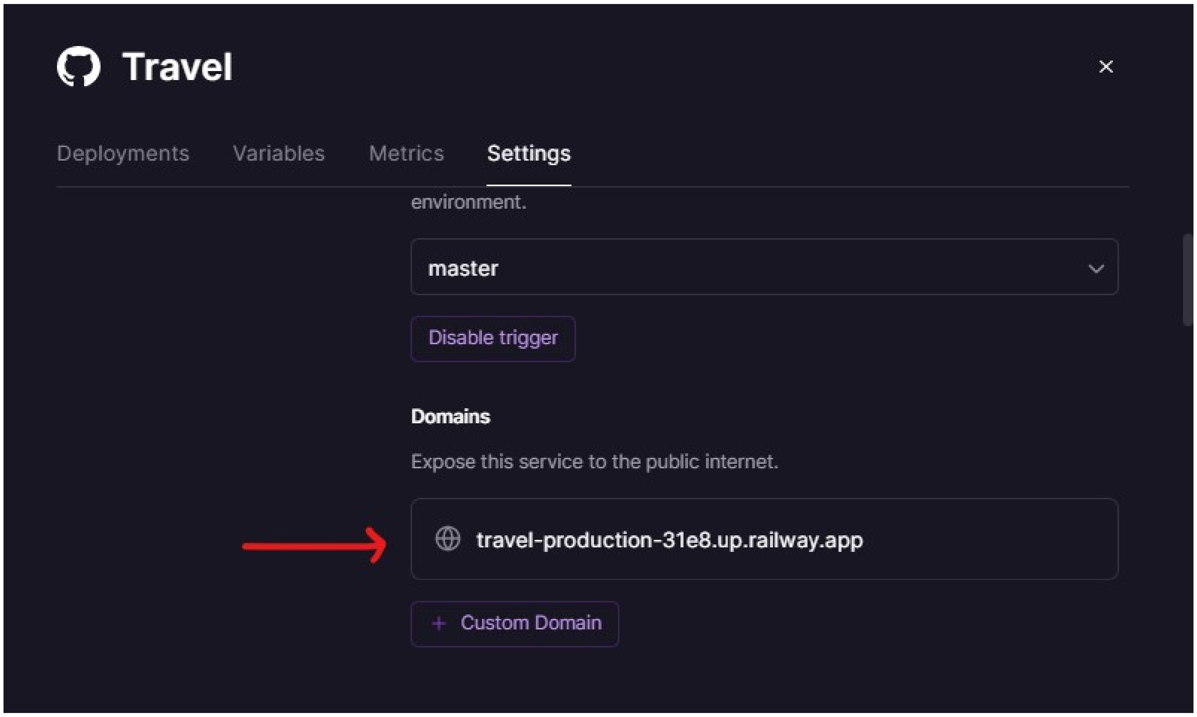
master

Domains

Expose this service to the public internet.

Service

Settings scoped to **ALL** environments.



environment.

master

Domains

Expose this service to the public internet.

travel-production-31e8.up.railway.app

- You can check your methods on the https://{domain_name}/swagger-ui/index.html

For Spring V3.0 and above, add the following code to your main method

```
import io.swagger.v3.oas.annotations.OpenAPIDefinition;
import io.swagger.v3.oas.annotations.servers.Server;

@OpenAPIDefinition(
      servers = {
         @Server(url = "/", description = "Default Server URL")
      }
  )
```

- This code will enable it to work with “Swagger”

- For any queries, Reach out to your IA.