



BUSTRACKER

APLICACIÓN PARA VER LOS TIEMPOS DEL TRANSPORTE PUBLICO

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TECNOLOGIAS

- Ktor
- React
- Mongo
- Docker
- Nginx

KTOR



Ktor es un marco de desarrollo de aplicaciones web en Kotlin. Proporciona un conjunto de herramientas y características que permiten crear rápidamente aplicaciones web y API.

¿POR QUÉ KTOR?

- Ktor permite desarrollar apis rápido y además tiene mucho mejor rendimiento que alternativas sus alternativas como Spring.

REACT



- React es una biblioteca de JavaScript utilizada para construir interfaces de usuario interactivas y reactivas.

¿POR QUÉ REACT?

- Eficiencia y rendimiento
- Componentes reutilizables
- Gran ecosistema y comunidad
- Multiplataforma

MONGO



- MongoDB es una base de datos NoSQL (No Relacional) que se caracteriza por su enfoque en la escalabilidad, la flexibilidad y el almacenamiento.

¿POR QUÉ MONGO?

- Flexibilidad en el esquema de datos
- Escalabilidad horizontal
- Consultas flexibles

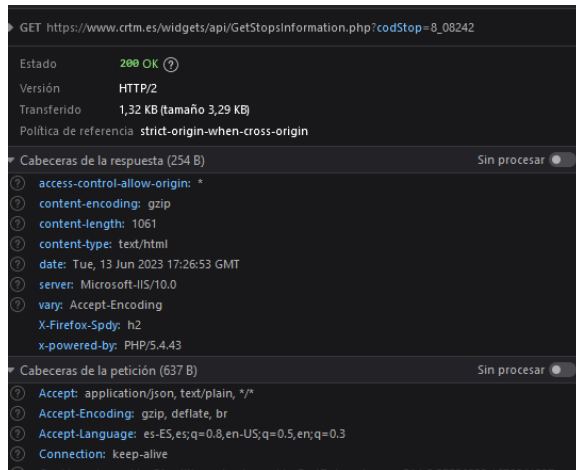
BACKEND

- Tiempos de las paradas de bus
- Localización de los autobuses
- Tiempos de las estaciones de metro
- Usuarios
- Autenticación
- Paradas Favoritas

TIEMPOS BUS

- ¿Dónde obtengo los datos?
- Normalizar los datos

OBTENCIÓN DATOS



```
3 public class WebServices
4 {
5     public static String key = null;
6     private static Date lastKey;
7     public static String privateKey = "pruebapruebapruebapruebaprueba12";
8     public static String server = "http://www.citram.es:8080/WSMultimodalInformation/MultimodalInformation.svc?wsdl";
9     static final String serverV2_viejo = "http://sbit1.crtm.es:50080/spai-crtm/srv/prepago/venta/";
10    static final String serverV2pre = "http://www.citram.es:50081/VENTAPREPAGOTITULO/VentaPrepagoTitulo.svc?wsdl";
11    public static final String server_dev = "http://www.citram.es:8080/WSMultimodalInformation_DEV/MultimodalInformation.svc?wsdl";
12    public static final String server_pre = "http://www.citram.es:8080/WSMultimodalInformation_TEST/MultimodalInformation.svc?wsdl";
13    public static final String server_pro = "http://www.citram.es:8080/WSMultimodalInformation/MultimodalInformation.svc?wsdl";
14 }
```

GENERAR SOAP

```
implementation("com.sun.xml.ws:jaxws-tools:4.0.1")
```

```
task( name: "wsimport-myservice") {  
    group = BasePlugin.BUILD_GROUP  
    val destDir = file( path: "$projectDir/src/main/java")  
    destDir.mkdirs()  
    val sourceDestDir = file( path: "$projectDir/src/main/java")  
    sourceDestDir.mkdirs()  
    doLast {  
        ant.withGroovyBuilder {  
            "taskdef"( ...keywordArguments:  
                "name" to "wsimport",  
                "classname" to "com.sun.tools.ws.ant.WsImport",  
                "classpath" to jaxws.asPath  
            )  
  
            "wsimport"( ...keywordArguments:  
                "keep" to true,  
                "sourcedestdir" to sourceDestDir,  
                //"destDir" to destDir, already compiled java classes, not needed  
                "package" to "crtm.soap",  
                "wsdl" to "http://www.citram.es:8080/WSMultimodalInformation/MultimodalInformation.svc?wsdl",  
            ) {  
                "xjcarg"( ...keywordArguments: "value" to "-XautoNameResolution")  
            }  
        }  
    }  
}
```

CONSUMIR SOAP

```
val defaultClient = MultimodalInformation_Service().basicHttp

val privateKey = "pruebapruebapruebapruebaprueba12".toByteArray()

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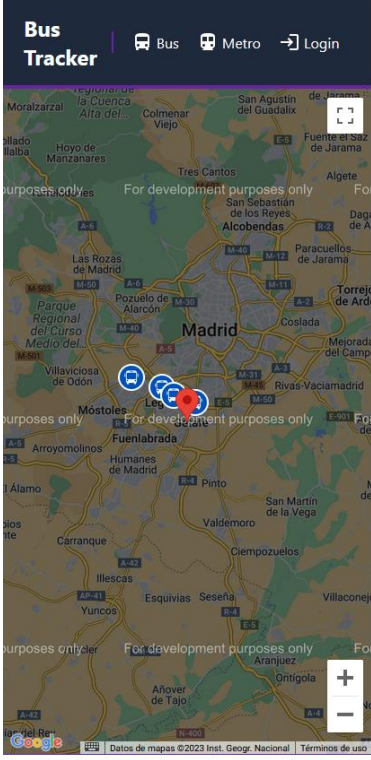
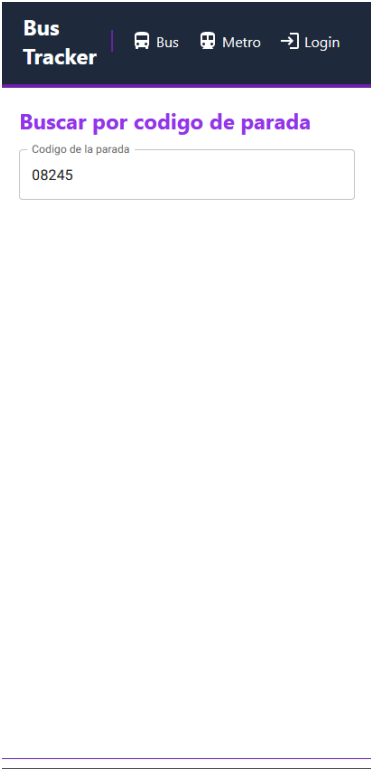
fun MultimodalInformation.auth(): AuthHeader {
    val key = getPublicKey(PublicKeyRequest())
    return authHeader(key.key.toByteArray(), privateKey)
}
```

```
fun getStopTimes(stopCode: String, codMode: String?): ShortStopTimesResponse? {
    val request = ShortStopTimesRequest().apply {
        codStop = stopCode
        type = 1
        orderBy = 2
        stopTimesBuIti = 3
        authentication = defaultClient.auth()
    }
    if (codMode != null) request.codMode = codMode
    return defaultClient.getShortStopTimes(request)
}
```

EXPONER LOS ENDPOINTS

```
fun Route.stopsRouting() = route( path: "/stops") {  
    get( path:("/{stopCode}/times") {  
        val stopCode = createStopCode( codMode: "8", call.parameters["stopCode"]!!)  
        val codMode = call.request.queryParameters["codMode"]  
        val timedVCached = try {  
            withTimeout(20.seconds) {  
                val stopTimes = CoroutineScope(Dispatchers.IO).async { getStopTimes(stopCode, codMode) }.await()  
                stopTimes?.stopTimes?.times?.shortTime?.map(::buildStopTimesJson)?.asJson()?.timed()  
            } ?: stopTimesCache.get(stopCode)  
        } catch (e: Exception) {  
            if (e is TimeoutCancellationException) stopTimesCache.get(stopCode)  
            else null  
        } ?: return@get call.respond(HttpStatusCode.BadRequest)  
  
        stopTimesCache.put(stopCode, timedVCached)  
  
        val json = jObject {  
            "data" += timedVCached.value  
            "lastTime" += timedVCached.createdAt.toEpochMilli()  
        }  
        call.respondText(json.serialized(), ContentType.Application.Json)  
    }  
}
```

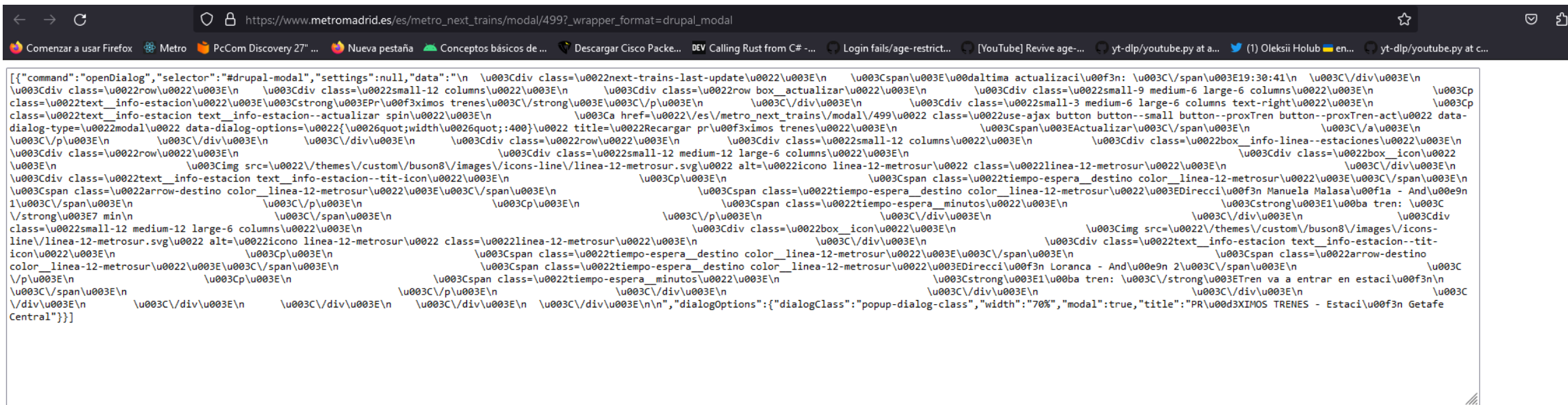
FRONT



TIEMPO METRO

- ¿Dónde obtengo los datos?
- Normalizar los datos

OBTENCIÓN DATOS



OBTENCIÓN DATOS

The screenshot shows a GitHub repository for 'Caul58 / ScriptableElements'. The file 'libs/TransportTiming.js' is open, showing JavaScript code for fetching metro timing data. The code includes comments and a function 'metroTiming' that uses 'fetch' to get data from a specific API endpoint. The file is 46 lines long, with 36 lines of code and 1.61 KB in size. A 'Symbols' panel on the right shows a function 'metroTiming'.

Caul58 / ScriptableElements Public

Watch 3 Fork 0 Star 2

<> Code Issues Pull requests Actions Projects Security Insights

Code

9f64be4

Go to file

libs

- TransportTiming.js
- BarrioPilarMetroTiming.js
- LICENSE
- PuertaArgandaMetroTiming.js
- README.md

ScriptableElements / libs / TransportTiming.js

Caul58 Update libs/TransportTiming.js 9f64be4 · 5 years ago History

Code Blame 46 lines (36 loc) · 1.61 KB

Raw Copy Download Edit

```
1 // Variables used by Scriptable.
2 // These must be at the very top of the file. Do not edit.
3 // icon-color: red; icon-glyph: bus-alt; share-sheet-inputs: plain-text;
4 var metroTiming = async function (station, presentUI, callback) {
5
6   let req = new Request("https://serviciosapp.metromadrid.es/servicios/rest/teleindicadores/" + station + "?")
7   req.headers = {"Accept": "application/json"}
8   let json = await req.loadJSON()
9
10  let array = json["Vtelindicadores"]
11  let table = new UITable()
```

Symbols

Find definitions and references for functions and other symbols in this file by clicking a symbol below or in the code.

Filter symbols

func metroTiming

CONSUMIR API

```
fun urlBuilder() = HttpUrl.Builder()
    .scheme("https")
    .host("serviciosapp.metromadrid.es")
    .addPathSegment(pathSegment: "servicios")
    .addPathSegment(pathSegment: "rest")
    .addPathSegment(pathSegment: "teleindicadores")

Roberto <unknown> +1

fun getTimes(id: String? = null): JsonNode? {
    val url = urlBuilder()
        .also { if (id != null) it.addPathSegment(id) }
        .build()


    val request = Request.Builder()
        .url(url)
        .get()
        .addHeader(name: "Accept", value: "application/json")
        .build()
}
```

FRONT

Bus Tracker |  Bus  Metro  Login

Buscar por estacion

Nombre de la estacion
Leganes

Bus Tracker |  Bus  Metro  Login

Leganés Central

Linea 12
Anden 1
- 3 minutos
- 11 minutos

Linea 12
Anden 2
- 2 minutos
- 10 minutos

USUARIOS

- Registro
- Inicio de sesión
- Verificar
- Restaurar contraseña

REGISTRO

- Introduce los datos
- Se validan y se envía el correo
- Usuario verifica su cuenta


REGISTRO


- Bcrypt para la contraseña
- Enviar correo


```
35
36 post("/register") {
37     val user = call.receiveText().deserialized()
38     val backUrl = call.request.queryParameters["backUrl"]?.also { URLEncoder.encode(it, "utf-8") }
39     ?: return@post badRequest("Missing backUrl")
40     val redirectUrl = call.request.queryParameters["redirectUrl"]?.also { URLEncoder.encode(it, "utf-8") }
41     ?: return@post badRequest("Missing redirectUrl")
42
43     val userTyped = User(
44         username = user["username"].asString()
45         .validateUsername()
46         .getOrElse { return@post badRequest(it.message) },
47         password = user["password"].asString()
48         .validatePassword()
49         .map { Bcrypt.hashAsString(it, saltRounds) }
50         .getOrElse { return@post badRequest(it.message) },
51         email = user["email"].asString()
52         .validateMail()
53         .getOrElse { return@post badRequest(it.message) },
54         verified = false
55     )
56
57     val userExists = userRepo.getCollection<User>().findOne(User::email eq userTyped.email) != null
58     if (userExists) conflict("User already exists")
59
60     userRepo.getCollection<User>().insertOne(userTyped)
61
62     val rawToken = signer { withClaim("email", userTyped.email) }
63
64     val token = URLEncoder.encode(rawToken, "utf-8")
65
66     val email = EmailBuilder.startingBlank()
67         .from("BusTracker", "noreply@bustracker.com")
68         .to(userTyped.username, userTyped.email)
69         .withSubject("Account Verification")
70         .withPlainText("Click here to verify your account: ${backUrl}/v1/users/verify?token=$token&redirectUrl=$redirectUrl")
71         .buildEmail()
```

A dark blue horizontal bar spanning the width of the page. On the left side, the word "FRONT" is written in white, bold, sans-serif capital letters.

Bus Tracker

 Bus

 Metro

 Login

Login


Email


Password


Create account

Forgot password

Bus Tracker

 Bus

 Metro


 Login

Register

Email

Username

Password



Register

Account Verification

 BusTracker <robertobl022@gmail.com>

 martes, 13 de junio de 2023 16:04:20

Click here to verify your account: <https://159.223.249.18:7777/v1/users/verify?token=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdwQioiOiJlbnVlcilIsImZcyI6Im0ic19cmFja2VyIiwiaWUiOiJhbGciOiJhbGciOiJhbGciOjBjbGUbnaAtMTFhMmJmZW85b38tYVlsLnNvbS39.bqlyT90CpqxfTGPN4i11zwS45XSJ6HyPwBRr4ozw&redirecturl=https://159.223.249.18/login>

LOGIN

- Introducen los datos
- Devuelve jwt con la información del usuario

FRONT

**Bus
Tracker**



Bus



Metro



Logout

Buscar por codigo de parada

Codigo de la parada

Paradas favoritas

08242



RESETEAR CONTRASEÑA

- Introducen los datos
- Se envía un correo con el link para resetear la contraseña
- Se resetea la contraseña

FRONT

Bus
Tracker



Bus



Metro



Login

Reset password

Email

Send email

We will send you an email with a link to reset your password

Bus
Tracker



Bus



Metro



Logout

New password

Password

Set new password

Reset Password



BusTracker <robertobl022@gmail.com>



martes, 13 de junio de 2023 20:02:32



Deliverability



Responder



Trasladar



Imprimir



Eliminar



Click here to reset your password: <https://159.223.249.18/new-password?token=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJhdWQiOiJidXNfdHJhY2t1ciIsImIzcyI6ImJ1c190cmFja2VyIiwiaWZwIjhaWwiOiJhbHQubnAtMTFhMmJmZ0B5b3BtYWlsLmNvbSJ9.bq1byT9DCpqxfTJgPN4i11zW545xSJ6HyPw8Rr4ozJw>



FAVORITOS

- Guardar
- Leer
- Borrar

FRONT

Bus Tracker |  Bus  Metro  Logout




Ultima actualizacion de CRTM
20:04:06
Añadir a favoritos



1
- 20:04:12
- 20:29:00
- 20:42:57

441
- 20:12:06
- 20:28:00
- 20:40:00

462
- 20:07:00
- 20:38:53
- 21:29:04




N801
- 0:46:00
- 23:26:00

Bus Tracker |  Bus  Metro  Logout

Leganés Central
Añadir a favoritos


Linea 12
Anden 1
- 3 minutos
- 10 minutos


Linea 12
Anden 2
- 1 minutos
- 9 minutos


Bus Tracker |  Bus  Metro  Logout

Buscar por codigo de parada

Codigo de la parada

Paradas favoritas

08242 

08243 


TESTS

Current scope: busTrackerApi | all classes

busTrackerApi: Overall Coverage Summary

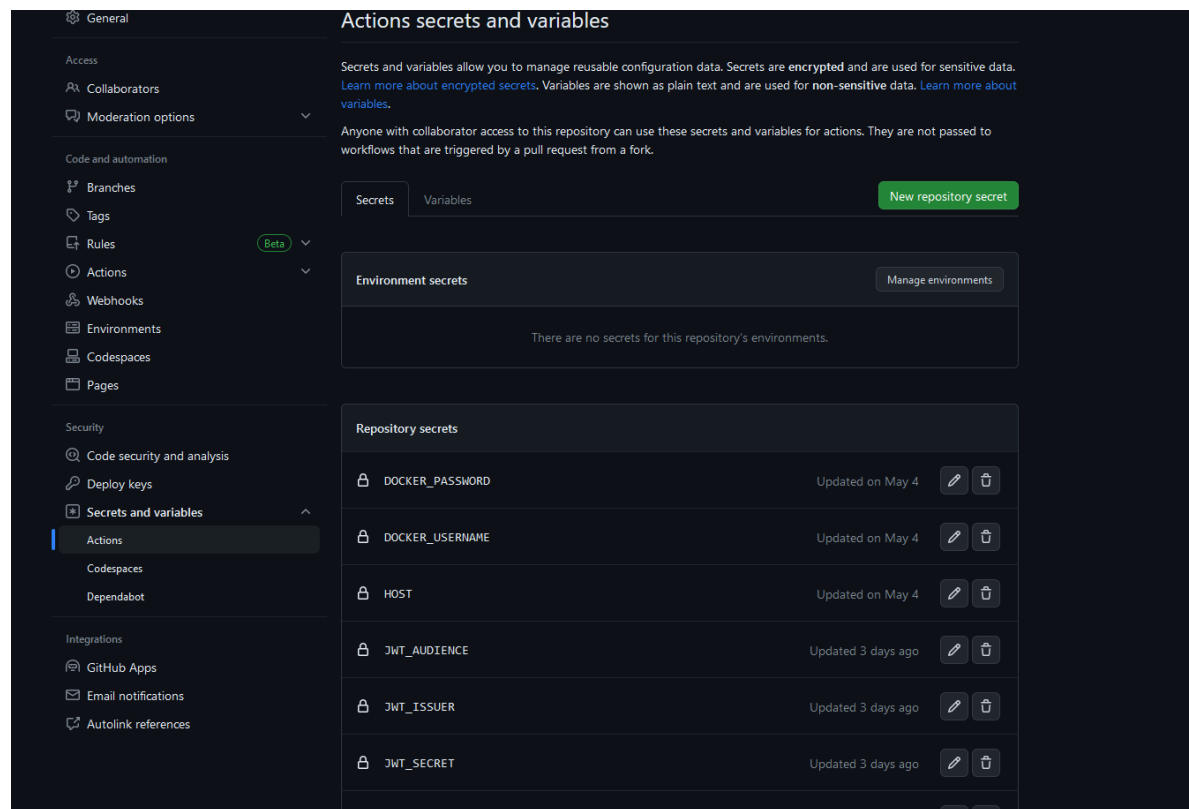
Package	Class, %	Method, %	Branch, %	Line, %	Instruction, %
all classes	90.6% (58/64)	80.4% (78/97)	53.3% (131/246)	80.3% (392/488)	79.7% (3159/3965)

Coverage Breakdown

Package 	Class, %	Method, %	Branch, %	Line, %	Instruction, %
busTrackerApi	83.3% (5/6)	81.2% (13/16)	38.2% (13/34)	79.7% (51/64)	71.6% (214/299)
busTrackerApi.config	95.2% (20/21)	92.6% (25/27)		98.3% (59/60)	99.2% (241/243)
busTrackerApi.routing.bus.lines	33.3% (2/6)	18.2% (2/11)	0% (0/22)	4.8% (4/84)	5.2% (32/617)
busTrackerApi.routing.bus.stops	100% (7/7)	100% (9/9)	57.7% (15/26)	98% (48/49)	95.4% (349/366)
busTrackerApi.routing.favourites	100% (8/8)	88.9% (8/9)	56% (28/50)	100% (56/56)	94.2% (703/746)
busTrackerApi.routing.metro	100% (4/4)	100% (6/6)	63.3% (19/30)	100% (40/40)	96.4% (323/335)
busTrackerApi.routing.users	100% (12/12)	78.9% (15/19)	66.7% (56/84)	99.3% (134/135)	95.4% (1297/1359)

CI

Configurar variables de entorno



The screenshot shows the GitHub Actions 'Secrets and variables' page. The left sidebar contains a navigation menu with categories: General, Access, Code and automation, Security, and Integrations. The 'Actions' item under 'Code and automation' is selected. The main content area is titled 'Actions secrets and variables' and includes a 'New repository secret' button. It features two tabs: 'Secrets' (active) and 'Variables'. Under the 'Secrets' tab, there is a section for 'Environment secrets' (currently empty) and a list of 'Repository secrets'. The repository secrets list includes entries for DOCKER_PASSWORD, DOCKER_USERNAME, HOST, JWT_AUDIENCE, JWT_ISSUER, and JWT_SECRET, each with an edit icon and an update timestamp.

General

Access

- Collaborators
- Moderation options

Code and automation

- Branches
- Tags
- Rules Beta
- Actions
- Webhooks
- Environments
- Codespaces
- Pages

Security

- Code security and analysis
- Deploy keys
- Secrets and variables
- Actions
- Codespaces
- Dependabot

Integrations

- GitHub Apps
- Email notifications
- Autolink references

Actions secrets and variables

Secrets and variables allow you to manage reusable configuration data. Secrets are encrypted and are used for sensitive data. [Learn more about encrypted secrets](#). Variables are shown as plain text and are used for non-sensitive data. [Learn more about variables](#).

Anyone with collaborator access to this repository can use these secrets and variables for actions. They are not passed to workflows that are triggered by a pull request from a fork.

Secrets Variables New repository secret

Environment secrets

Manage environments

There are no secrets for this repository's environments.

Repository secrets

DOCKER_PASSWORD	Updated on May 4		
DOCKER_USERNAME	Updated on May 4		
HOST	Updated on May 4		
JWT_AUDIENCE	Updated 3 days ago		
JWT_ISSUER	Updated 3 days ago		
JWT_SECRET	Updated 3 days ago		

CI

```
8   name: Java CI with Gradle
9
10  on:
11    push:
12      branches:
13        - '*'
14    pull_request:
15      branches:
16        - '*'
17
18  permissions:
19    contents: read
20
21  jobs:
22    build:
23      runs-on: ubuntu-latest
24      env:
25        JWT_SECRET: ${ secrets.JWT_SECRET }
26        JWT_AUDIENCE: ${ secrets.JWT_AUDIENCE }
27        JWT_ISSUER: ${ secrets.JWT_ISSUER }
28        STMP_HOST: ${ secrets.STMP_HOST }
29        STMP_PORT: ${ secrets.STMP_PORT }
30        STMP_USERNAME: ${ secrets.STMP_USERNAME }
31        STMP_PASSWORD: ${ secrets.STMP_PASSWORD }
32      steps:
33        - uses: actions/checkout@v3
34        - name: Set up JDK 17
35          uses: actions/setup-java@v3
36          with:
37            java-version: '17'
38            distribution: 'temurin'
39
40        - name: Run chmod to make gradlew executable
41          run : chmod +x ./gradlew
42
43        - name: Build with Gradle
44          uses: gradle/gradle-build-action@67421db6bd0bf253fb4bd25b31ebb98943c375e1
45          with:
46            arguments: build --stacktrace
```

JAR

```
plugins {  
    kotlin("jvm")  
    id("io.ktor.plugin")  
    id("org.jetbrains.kotlinx.kover") version "0.7.1"  
    application  
}
```

```
ktor {  
    fatJar {  
        archiveFileName.set("${project.name}.jar")  
    }  
}
```

DOCKER

```
version: "3.9"
services:
  mongo:
    image: mongo
    restart: always
  api:
    depends_on:
      - mongo
    image: xbank/bus_tracker_api:latest
    environment:
      - MONGO_CONNECTION_STRING
      - MONGO_DATABASE_NAME
      - JWT_SECRET
      - JWT_AUDIENCE
      - JWT_ISSUER
      - STMP_HOST
      - STMP_PORT
      - STMP_USERNAME
      - STMP_PASSWORD
  nginx:
    depends_on:
      - api
    image: nginx
    ports:
      - "7777:443"
    volumes:
      - ./nginx.conf:/etc/nginx/conf.d/default.conf
      - /root/ssl/key.pem:/root/ssl/key.pem
      - /root/ssl/cert.pem:/root/ssl/cert.pem
    command: [ "nginx", "-g", "daemon off;" ]
```

NGINX

```
nginx:
  depends_on:
    - api
  image: nginx
  ports:
    - "7777:443"
  volumes:
    - ./nginx.conf:/etc/nginx/conf.d/default.conf
    - /root/ssl/key.pem:/root/ssl/key.pem
    - /root/ssl/cert.pem:/root/ssl/cert.pem
  command: [ "nginx", "-g", "daemon off;" ]
```

```
1  upstream servers {
2    server api:8080 fail_timeout=50s max_fails=5;
3  }
4  server {
5    listen          443 ssl;
6    listen          [::]:443 ssl;
7    ssl_certificate  /root/ssl/cert.pem;
8    ssl_certificate_key /root/ssl/key.pem;
9    location / {
10       proxy_pass http://servers;
11    }
12  }
```

CD

Primero se compila y se sube la imagen a Docker hub

```
push_to_registry:
  name: Push Docker image to Docker Hub
  runs-on: ubuntu-latest
  needs: build
  steps:
    - name: Check out the repo
      uses: actions/checkout@v3

    - name: Log in to Docker Hub
      uses: docker/login-action@65b78e6e13532edd9afa3aa52ac7964289d1a9c1
      with:
        username: ${ secrets.DOCKER_USERNAME }
        password: ${ secrets.DOCKER_PASSWORD }

    - name: Extract metadata (tags, labels) for Docker
      id: meta
      uses: docker/metadata-action@9ec57ed1fcd9b14dcef7dfbe97b2010124a938b7
      with:
        images: xbank/bus_tracker_api

    - name: Build and push Docker image
      uses: docker/build-push-action@f2ald5e99d037542a71f64918e516c093c6f3fc4
      with:
        context: .
        push: true
        tags: ${ steps.meta.outputs.tags }
        labels: ${ steps.meta.outputs.labels }
        name: remote ssh command

  deploy:
```

CD

Después se despliega en la maquina ejecutando el Docker compose

```
deploy:
  name: Build
  runs-on: ubuntu-latest
  needs: push_to_registry
  env:
    JWT_SECRET: ${ secrets.JWT_SECRET }
    JWT_AUDIENCE: ${ secrets.JWT_AUDIENCE }
    JWT_ISSUER: ${ secrets.JWT_ISSUER }
    STMP_HOST: ${ secrets.STMP_HOST }
    STMP_PORT: ${ secrets.STMP_PORT }
    STMP_USERNAME: ${ secrets.STMP_USERNAME }
    STMP_PASSWORD: ${ secrets.STMP_PASSWORD }
    MONGO_CONNECTION_STRING: ${ secrets.MONGO_CONNECTION_STRING }
    MONGO_DATABASE_NAME: ${ secrets.MONGO_DATABASE_NAME }
    MONGO_INITDB_ROOT_USERNAME: ${ secrets.MONGO_INITDB_ROOT_USERNAME }
    MONGO_INITDB_ROOT_PASSWORD: ${ secrets.MONGO_INITDB_ROOT_PASSWORD }
  steps:
    - name: executing remote ssh commands using password
      uses: appleboy/ssh-action@v0.1.10
      with:
        envs: JWT_SECRET,JWT_AUDIENCE,JWT_ISSUER,STMP_HOST,STMP_PORT,STMP_USERNAME,STMP_PASSWORD,MONGO_CONNECTION_STRING,MONGO_DATABASE_NAME,MONGO_INITDB_ROOT_USERNAME,MONGO_INITDB_ROOT_PASSWORD
        host: ${ secrets.HOST }
        username: ${ secrets.USERNAME }
        password: ${ secrets.PASSWORD }
        port: ${ secrets.PORT }
        script: |
          export JWT_SECRET=$JWT_SECRET
          export JWT_AUDIENCE=$JWT_AUDIENCE
          export JWT_ISSUER=$JWT_ISSUER
          export STMP_HOST=$STMP_HOST
          export STMP_PORT=$STMP_PORT
          export STMP_USERNAME=$STMP_USERNAME
          export STMP_PASSWORD=$STMP_PASSWORD
          export MONGO_CONNECTION_STRING=$MONGO_CONNECTION_STRING
          export MONGO_DATABASE_NAME=$MONGO_DATABASE_NAME
          export MONGO_INITDB_ROOT_USERNAME=$MONGO_INITDB_ROOT_USERNAME
          export MONGO_INITDB_ROOT_PASSWORD=$MONGO_INITDB_ROOT_PASSWORD
          docker compose -f ./bus-tracker-back/docker-compose.yml stop
          docker compose -f ./bus-tracker-back/docker-compose.yml rm -f
          docker compose -f ./bus-tracker-back/docker-compose.yml pull
```



GRACIAS