

# Database Setup Documentation

## Overview

The `on-internal-api` service uses a multi-database architecture primarily based on **PostgreSQL**, implemented using the **Sequelize ORM**. It connects to four distinct PostgreSQL databases and one MongoDB instance.

## 1. Environment Configuration

To run the application, you must configure the following environment variables in your `.env` file to establish connections to the required databases.

### Sunshine Database (Main Employee/HR DB)

Variable	Description
<code>PG_SUNSHINE_HOST</code>	Database host address
<code>PG_SUNSHINE_USER</code>	Database username
<code>PG_SUNSHINE_PASSWORD</code>	Database password
<code>PG_SUNSHINE_DB</code>	Database name
<code>PG_SUNSHINE_DIALECT</code>	<code>postgres</code>
<code>PG_SUNSHINE_PORT</code>	Port (default: 5432)

### Fleet Database

Variable	Description
<code>PG_FLEET_HOST</code>	Database host
<code>PG_FLEET_USER</code>	Database username
<code>PG_FLEET_PASSWORD</code>	Database password
<code>PG_FLEET_DB</code>	Database name
<code>PG_FLEET_dialect</code>	<code>postgres</code>
<code>PG_FLEET_PORT</code>	Port

## CMS Database

Variable	Description
<code>PG_CMS_HOST</code>	Database host
<code>PG_CMS_USER</code>	Database username
<code>PG_CMS_PASSWORD</code>	Database password
<code>PG_CMS_DB</code>	Database name
<code>PG_CMS_dialect</code>	<code>postgres</code>
<code>PG_CMS_PORT</code>	Port

## Mitra Database (Partners)

Variable	Description
<code>PG_MITRA_HOST</code>	Database host
<code>PG_MITRA_USER</code>	Database username
<code>PG_MITRA_PASSWORD</code>	Database password
<code>PG_MITRA_DB</code>	Database name
<code>PG_MITRA_DIALECT</code>	<code>postgres</code>
<code>PG_MITRA_PORT</code>	Port

(Note: There is also a `MONGO_MITRA` variable for a MongoDB connection).

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# 2. Key Database Schemas & Tables

The application uses specific PostgreSQL schemas beyond the default `public`. You may need to create these schemas manually if Sequelize does not create them automatically.

- **Public:** Default schema for most tables.
- **Approval:** Used for `area` and `template_json` tables.
- **CMS:** Used for `ad` and other content management tables.

## Sunshine DB Models

This database appears to handle employee management, authentication, and core organizational structure.

### Table: `users`

- **Primary Key:** `username` (String)
- **Foreign Key:** `role_code` references `roles(code)`
- **Columns:**
  - `email` (String, Unique)
  - `password` (String)
  - `login_token` (JSONB)
  - `imei` (String)
  - `created_at`, `updated_at` (Timestamp)

### Table: `roles`

- **Primary Key:** `code` (String)
- **Columns:**
  - `name` (String, Not Null)
  - `access_menu` (Array of Integers, Not Null)
  - `status` (Boolean)
  - `division` (String)

### Table: `positions`

- **Primary Key:** `id` (Integer, Auto-increment)
- **Columns:**
  - `name` (String, Not Null)
  - `parent_id` (Integer) - Likely for hierarchy

## Table: `division`

- **Primary Key:** `id` (Integer, Auto-increment)
- **Columns:**
  - `name` (String, Not Null)
  - `status` (Boolean, Not Null)

# Ticketing Models

Likely located in the Sunshine or Fleet database (referencing `vendors` and `agents`).

## Table: `tickets`

- **Primary Key:** `tag` (String) - Note: `id` is auto-increment but `tag` is marked Primary Key in definition.
- **Foreign Keys:**
  - `vendor_code` -> `vendors(code)`
  - `agent_code` -> `agents(code)`
  - `problem_type_code` -> `problem_types(code)`
  - `created_by` -> `users(username)`
- **Columns:**
  - `waybill` (String)
  - `status` (Enum: 'Solved', 'Open', 'In Progress', etc.)
  - `description` (Text)
  - `attachments` (Array of Strings) - Note: Contains logic to handle file paths.

# Approval Schema Models

## Table: `approval.area`

- **Primary Key:** `area_code` (String)
- **Columns:**
  - `id` (Integer, Unique, Auto-increment)
  - `area_name` (String)
  - `large_area_group` (String)
  - `status` (String)

## Table: `approval.template_json`

- **Primary Key:** `type` (String)
- **Columns:**
  - `template` (JSONB)

- **Timestamps:** False

# Mitra DB Models

Table: `driver_login`

- **Primary Key:** `id` (BigInt)
- **Columns:**
  - `email` (String, Not Null)
  - `password` (String, Not Null)
  - `login_token` (String)
  - `online` (Boolean)
  - `disabled` (Boolean)

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## 3. Initialization Steps

1. **Create Databases:** Ensure the 4 databases defined in the environment variables exist ( `PG_SUNSHINE_DB`, etc.).
2. **Create Schemas:** Run the following SQL in the appropriate databases:

```
CREATE SCHEMA IF NOT EXISTS "approval";  
CREATE SCHEMA IF NOT EXISTS "cms";
```

3. **Run Migration/Sync:** The application uses `sequelize.sync()` (implied by model definitions). When the application starts, it will attempt to create these tables if they do not exist. Ensure the database user has `CREATE TABLE` permissions.

## 4. Notes on Data Types

- **Arrays:** The application makes heavy use of PostgreSQL `ARRAY` types (e.g., `access_menu` in `roles`, `attachments` in `tickets`).
- **JSONB:** Used for dynamic data like `login_token` and `template`.
- **Virtual Fields:** several models (`roles`, `area`) define virtual fields (`code_name`, `formattedName`). These exist in the API layer only and are not columns in the database.

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