

Flight Management System – Refined Data Model

☼ Conventions

- Tables and columns use **snake_case**, in **singular**.
 - Primary keys are **UUID** generated with `gen_random_uuid()` (`CREATE EXTENSION pgcrypto;`).
 - **Audit fields (7):**
 - `status`
 - `created_at` / `created_by`
 - `updated_at` / `updated_by`
 - `deleted_at` / `deleted_by`
 - Foreign Keys use **ON UPDATE CASCADE** and **ON DELETE** rules appropriate to the domain.
 - **Unique constraints** on codes and names (scoped where applicable).
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Module: Geolocation

- **continent** {id, code, name, description}
- **country** {id, code, name, description, continent_id}
- **state** {id, code, name, description, country_id}
- **city** {id, code, name, description, state_id}

Module: Infrastructure

- **airport** {id, code, name, address, city_id}
- **terminal** {id, code, name, airport_id}
- **boarding_gate** {id, code, name, terminal_id}

Module: Parameterization

- **document_type** {id, code, name, description}
- **flight_type** {id, code, name, description}
- **aircraft_type** {id, code, name, description}
- **crew_role** {id, code, name, description}
- **ticket_class** {id, code, name, description}

Module: Security

- **role** {id, name, description}
- **module** {id, name, color, icon, path}
- **form** {id, name, color, icon, path, section}
- **form_module** {id, form_id, module_id}
- **role_form** {id, role_id, form_id}
- **person** {id, first_name, last_name, document_number, birth_date, gender, phone, email, address, attendant_name, attending_phone, document_type_id, city_id}
- **user_account** {id, username, password_hash, person_id, role_id}

Module: Human Resources

- **employee** {id, salary, hire_date, crew_role_id, person_id}
(future scalability: contracts, training, payroll, certifications, etc.)

Module: Aircraft Management

- **aircraft** {id, manufacturer, registration_code, hours_in_use, aircraft_type_id}

Module: Flight Operations

- **flight** {id, flight_date, departure_time, arrival_time, flight_type_id, origin_boarding_gate_id, destination_boarding_gate_id, aircraft_id}
- **crew_assignment** {id, flight_id, employee_id, crew_role_id}
- **ticket** {id, code, flight_id, passenger_id, ticket_class_id, seat_number, price}
- **baggage** {id, code, weight, ticket_id}

Module: Passengers & Services

- **passenger** {id, frequent_flyer_number, person_id}

Module: Notifications

- **message_template** {id, code, name, subject_template, body_template}
- **notification** {id, person_id, channel, subject, message, sent_at, status}