

Traveleo – Database Schema & SQL Queries

Create Database

```
CREATE DATABASE traveleo_db;
```

Users Table

```
CREATE TABLE users ( id SERIAL PRIMARY KEY, name VARCHAR(100) NOT NULL, email VARCHAR(150) UNIQUE NOT NULL, password VARCHAR(255) NOT NULL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP );
```

Trips Table

```
CREATE TABLE trips ( id SERIAL PRIMARY KEY, user_id INTEGER NOT NULL, title VARCHAR(100) NOT NULL, destination VARCHAR(100), start_date DATE NOT NULL, end_date DATE NOT NULL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, CONSTRAINT fk_user FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE );
```

Categories Table

```
CREATE TABLE categories ( id SERIAL PRIMARY KEY, user_id INTEGER NOT NULL, name VARCHAR(50) NOT NULL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, CONSTRAINT fk_category_user FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE, CONSTRAINT unique_category_per_user UNIQUE (user_id, name) );
```

Expenses Table

```
CREATE TABLE expenses ( id SERIAL PRIMARY KEY, user_id INTEGER NOT NULL, trip_id INTEGER NOT NULL, category_id INTEGER NOT NULL, amount NUMERIC(10, 2) NOT NULL CHECK (amount > 0), description TEXT, expense_date DATE NOT NULL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, CONSTRAINT fk_expense_user FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE, CONSTRAINT fk_expense_trip FOREIGN KEY (trip_id) REFERENCES trips(id) ON DELETE CASCADE, CONSTRAINT fk_expense_category FOREIGN KEY (category_id) REFERENCES categories(id) ON DELETE RESTRICT );
```

Budgets Table

```
CREATE TABLE budgets ( id SERIAL PRIMARY KEY, user_id INTEGER NOT NULL, trip_id INTEGER NOT NULL, total_budget NUMERIC(12, 2) NOT NULL CHECK (total_budget > 0), created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, CONSTRAINT fk_budget_user FOREIGN KEY (user_id) REFERENCES users(id) ON DELETE CASCADE, CONSTRAINT fk_budget_trip FOREIGN KEY (trip_id) REFERENCES trips(id) ON DELETE CASCADE, CONSTRAINT unique_budget_per_trip UNIQUE (trip_id) );
```