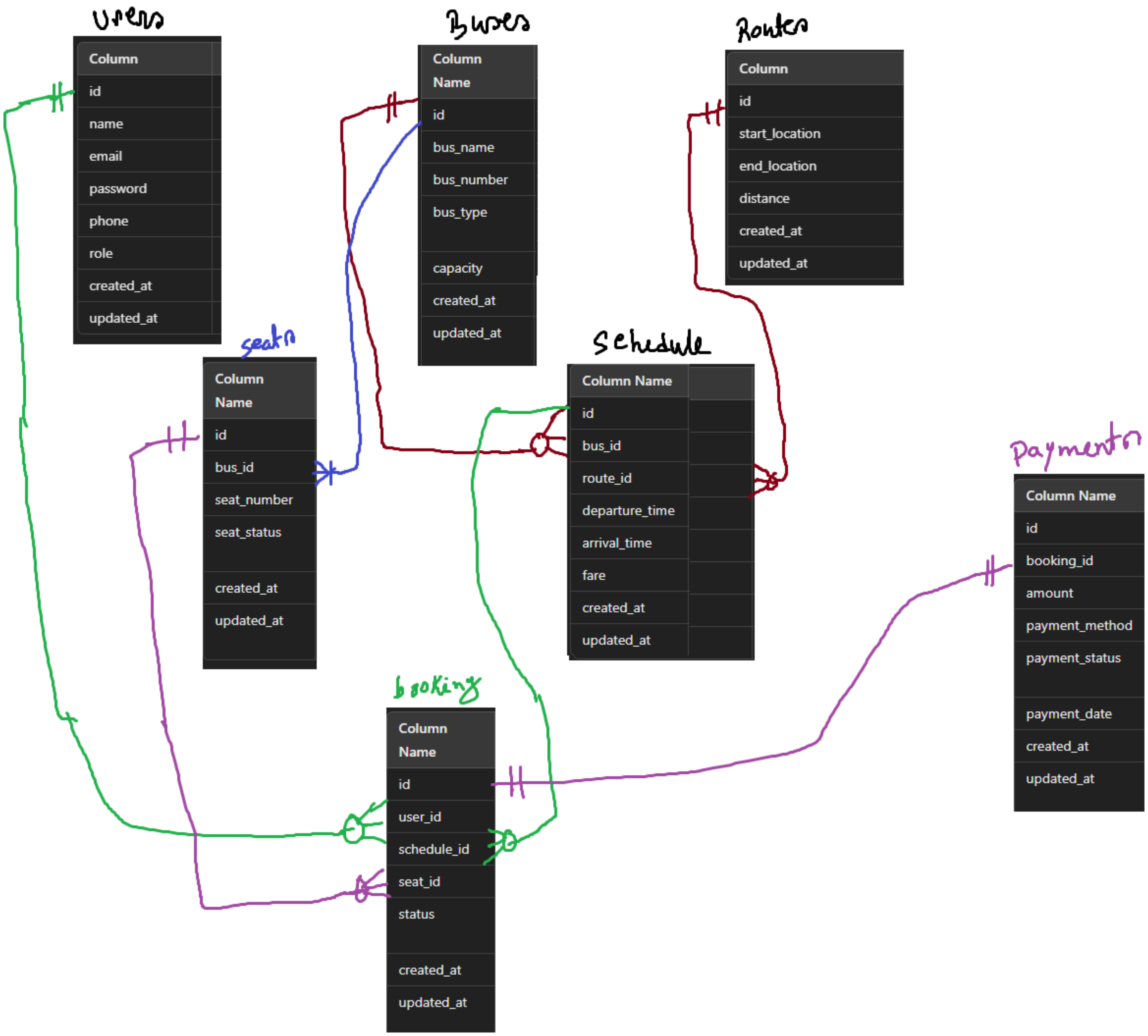
BUS Ticket Management



Users

Column
id
name
email
password
phone
role
created_at
updated_at

Buses

Column Name
id
bus_name
bus_number
bus_type
capacity
created_at
updated_at

Routes

Column
id
start_location
end_location
distance
created_at
updated_at

seats

Column Name
id
bus_id
seat_number
seat_status
created_at
updated_at

Schedule

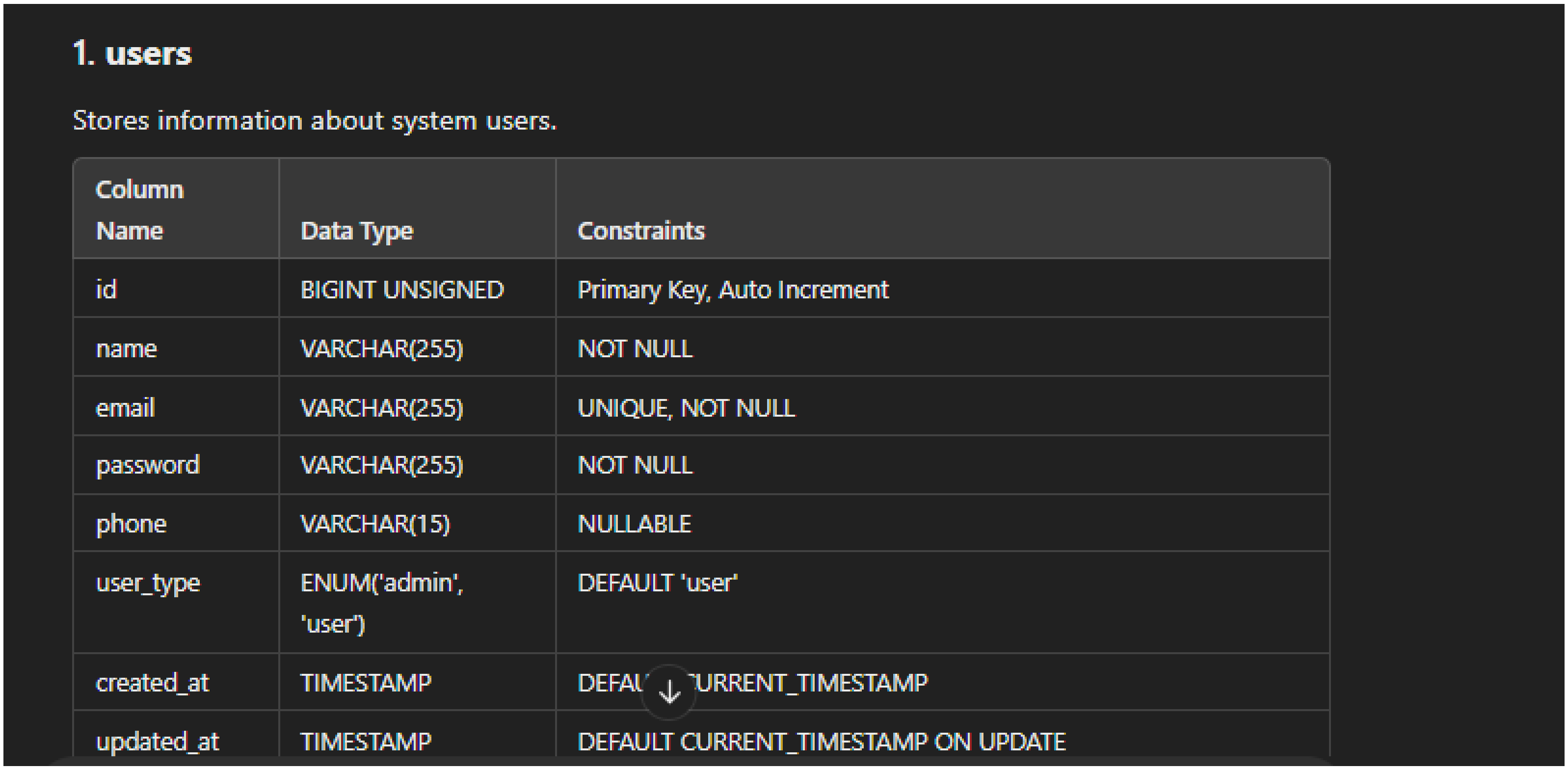
Column Name
id
bus_id
route_id
departure_time
arrival_time
fare
created_at
updated_at

Payments

Column Name
id
booking_id
amount
payment_method
payment_status
payment_date
created_at
updated_at

booking

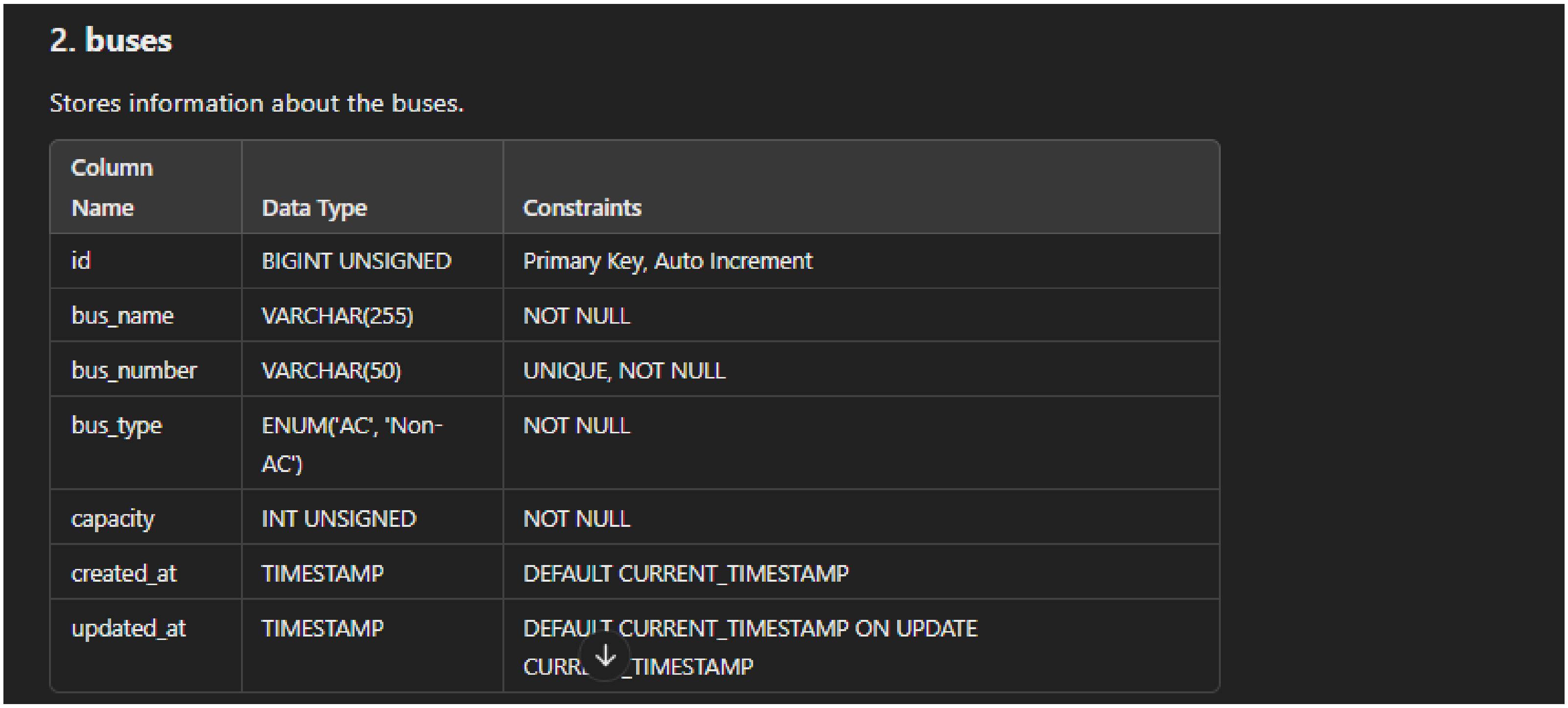
Column Name
id
user_id
schedule_id
seat_id
status
created_at
updated_at



1. users

Stores information about system users.

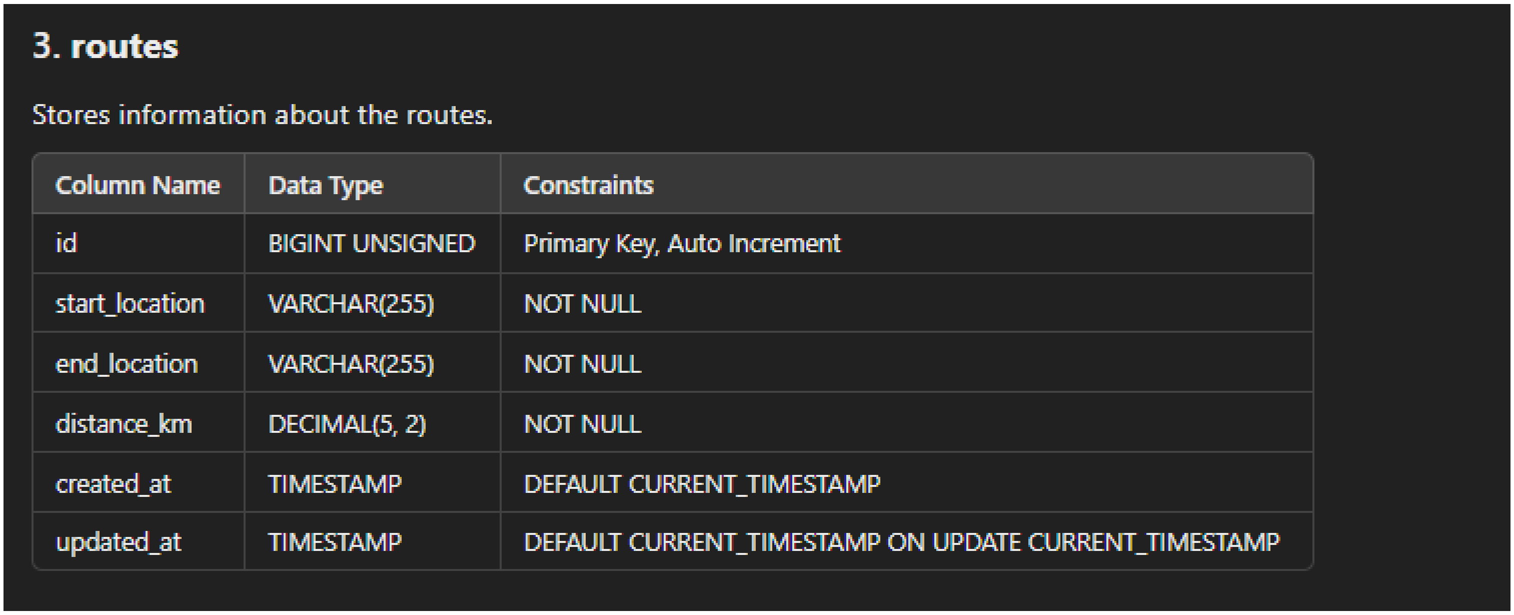
Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
name	VARCHAR(255)	NOT NULL
email	VARCHAR(255)	UNIQUE, NOT NULL
password	VARCHAR(255)	NOT NULL
phone	VARCHAR(15)	NULLABLE
user_type	ENUM('admin', 'user')	DEFAULT 'user'
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE



2. buses

Stores information about the buses.

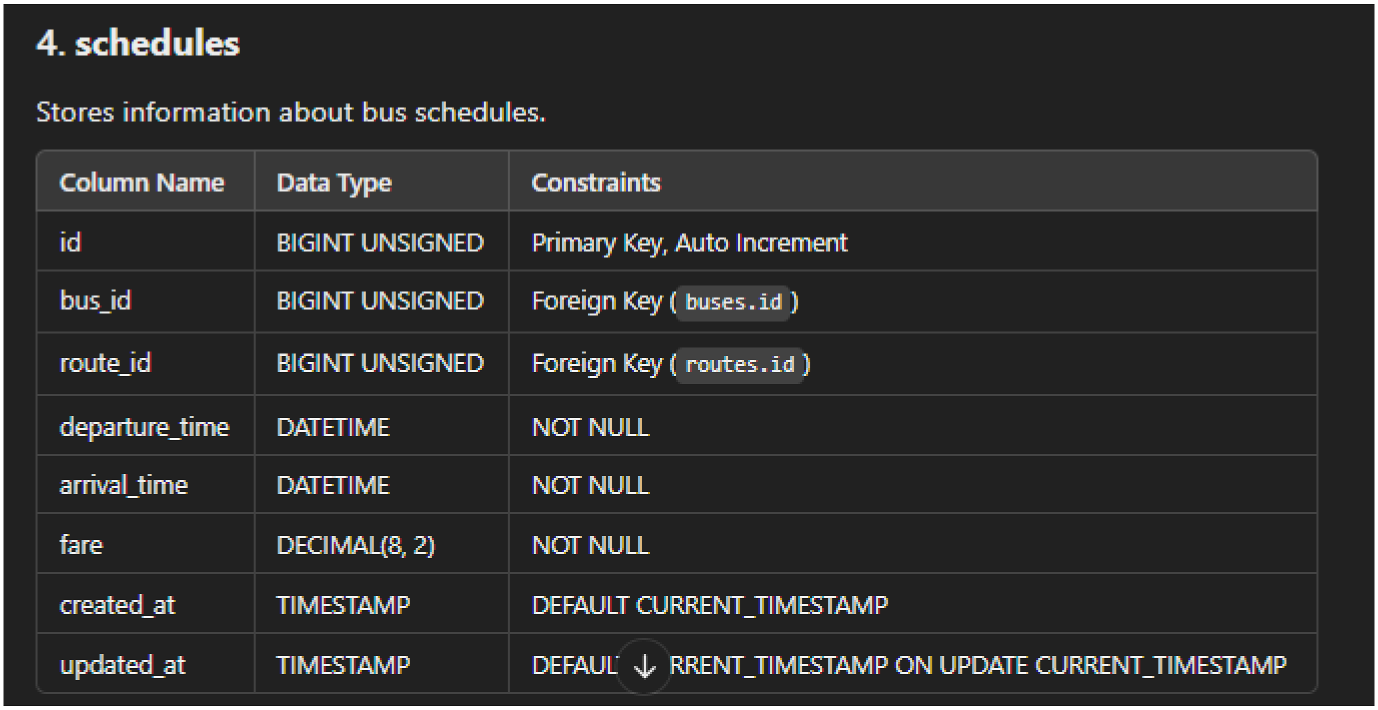
Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
bus_name	VARCHAR(255)	NOT NULL
bus_number	VARCHAR(50)	UNIQUE, NOT NULL
bus_type	ENUM('AC', 'Non-AC')	NOT NULL
capacity	INT UNSIGNED	NOT NULL
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP



3. routes

Stores information about the routes.

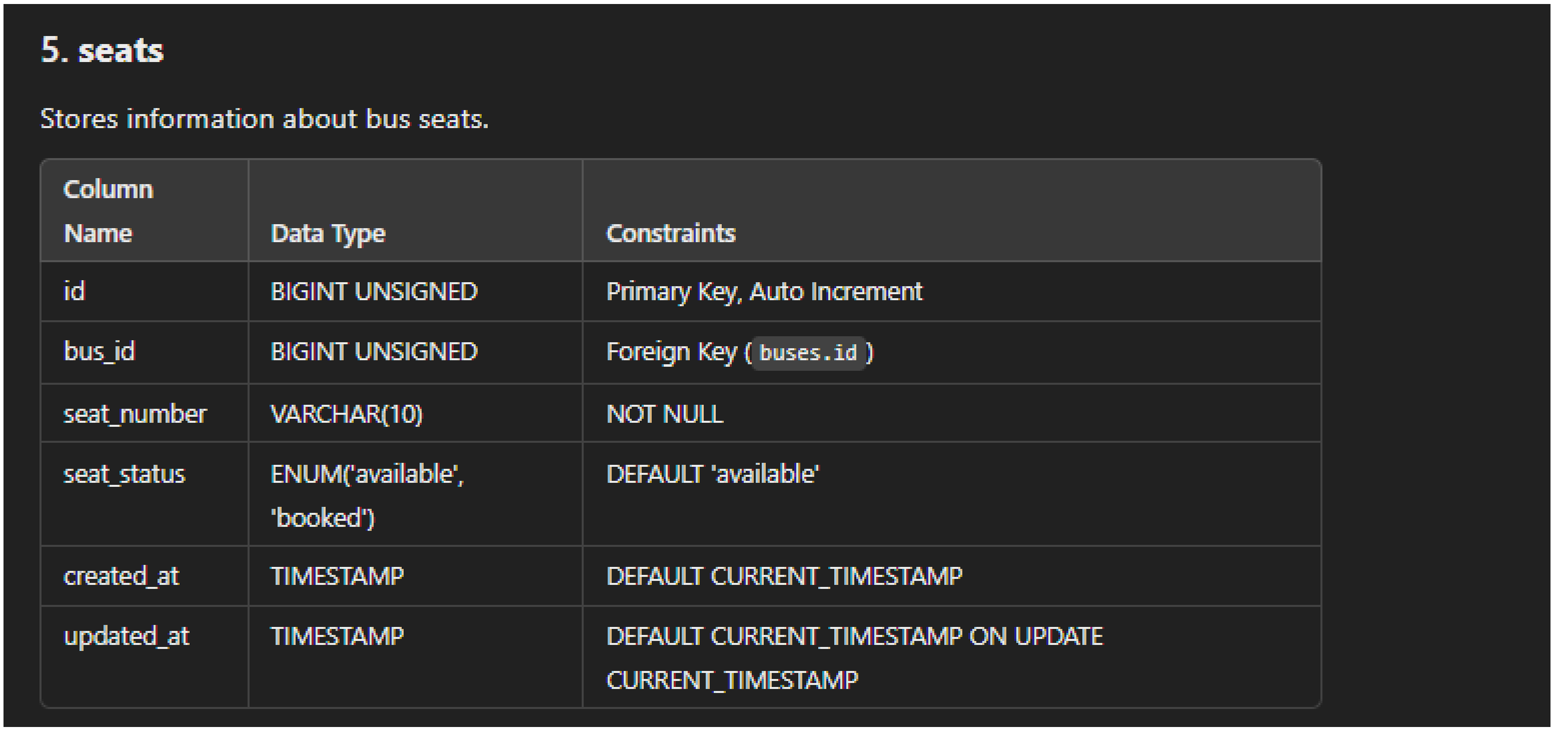
Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
start_location	VARCHAR(255)	NOT NULL
end_location	VARCHAR(255)	NOT NULL
distance_km	DECIMAL(5, 2)	NOT NULL
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP



4. schedules

Stores information about bus schedules.

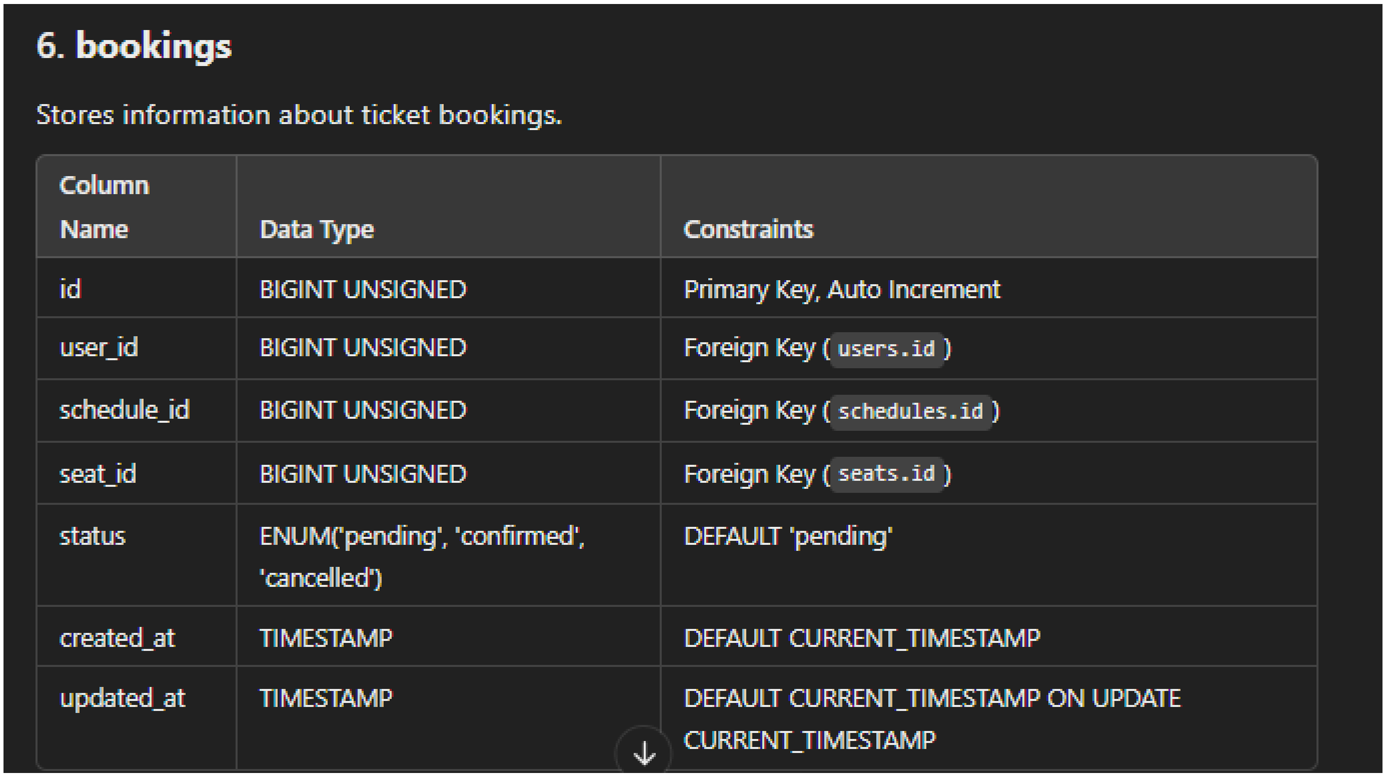
Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
bus_id	BIGINT UNSIGNED	Foreign Key (`buses.id`)
route_id	BIGINT UNSIGNED	Foreign Key (`routes.id`)
departure_time	DATETIME	NOT NULL
arrival_time	DATETIME	NOT NULL
fare	DECIMAL(8, 2)	NOT NULL
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP



5. seats

Stores information about bus seats.

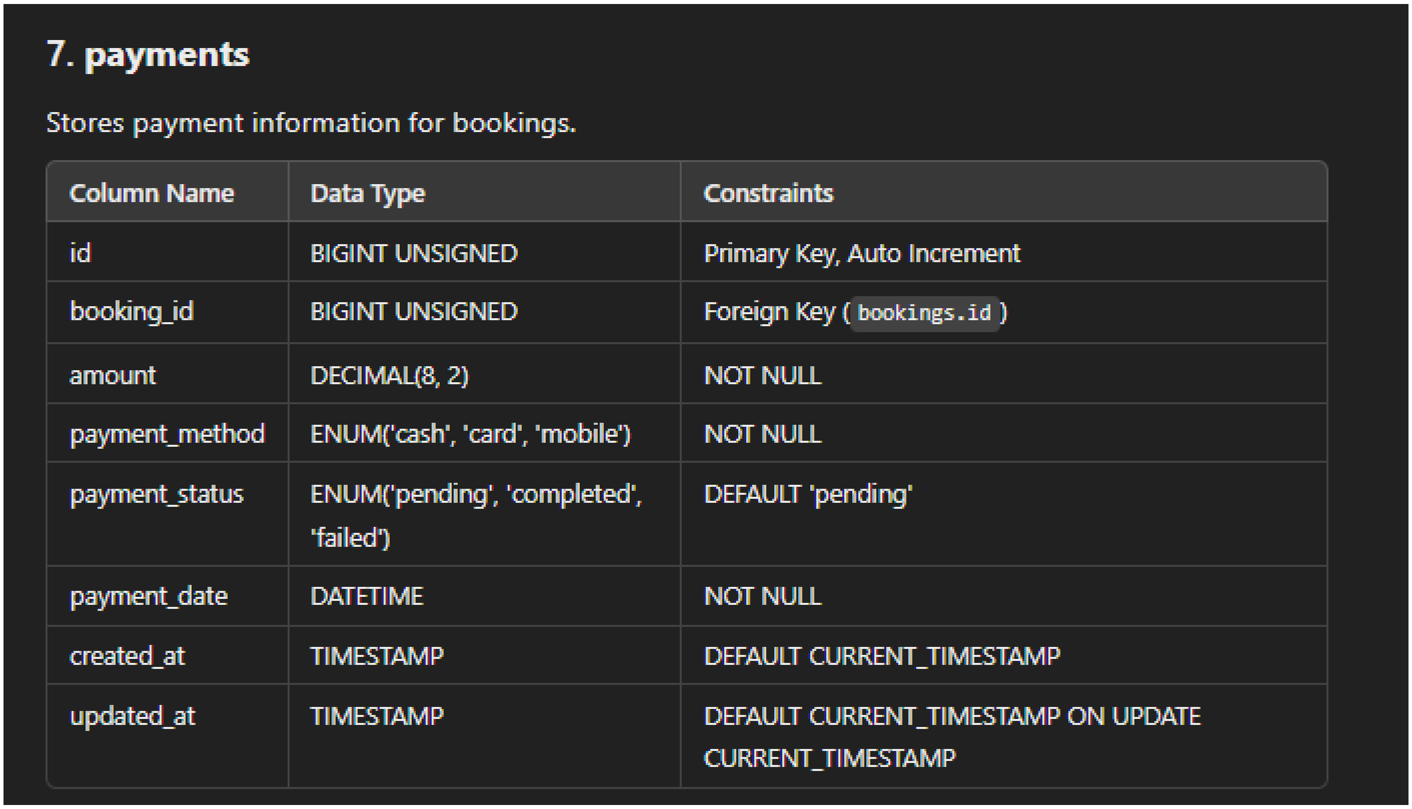
Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
bus_id	BIGINT UNSIGNED	Foreign Key (`buses.id`)
seat_number	VARCHAR(10)	NOT NULL
seat_status	ENUM('available', 'booked')	DEFAULT 'available'
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP



6. bookings

Stores information about ticket bookings.

Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
user_id	BIGINT UNSIGNED	Foreign Key (`users.id`)
schedule_id	BIGINT UNSIGNED	Foreign Key (`schedules.id`)
seat_id	BIGINT UNSIGNED	Foreign Key (`seats.id`)
status	ENUM('pending', 'confirmed', 'cancelled')	DEFAULT 'pending'
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP



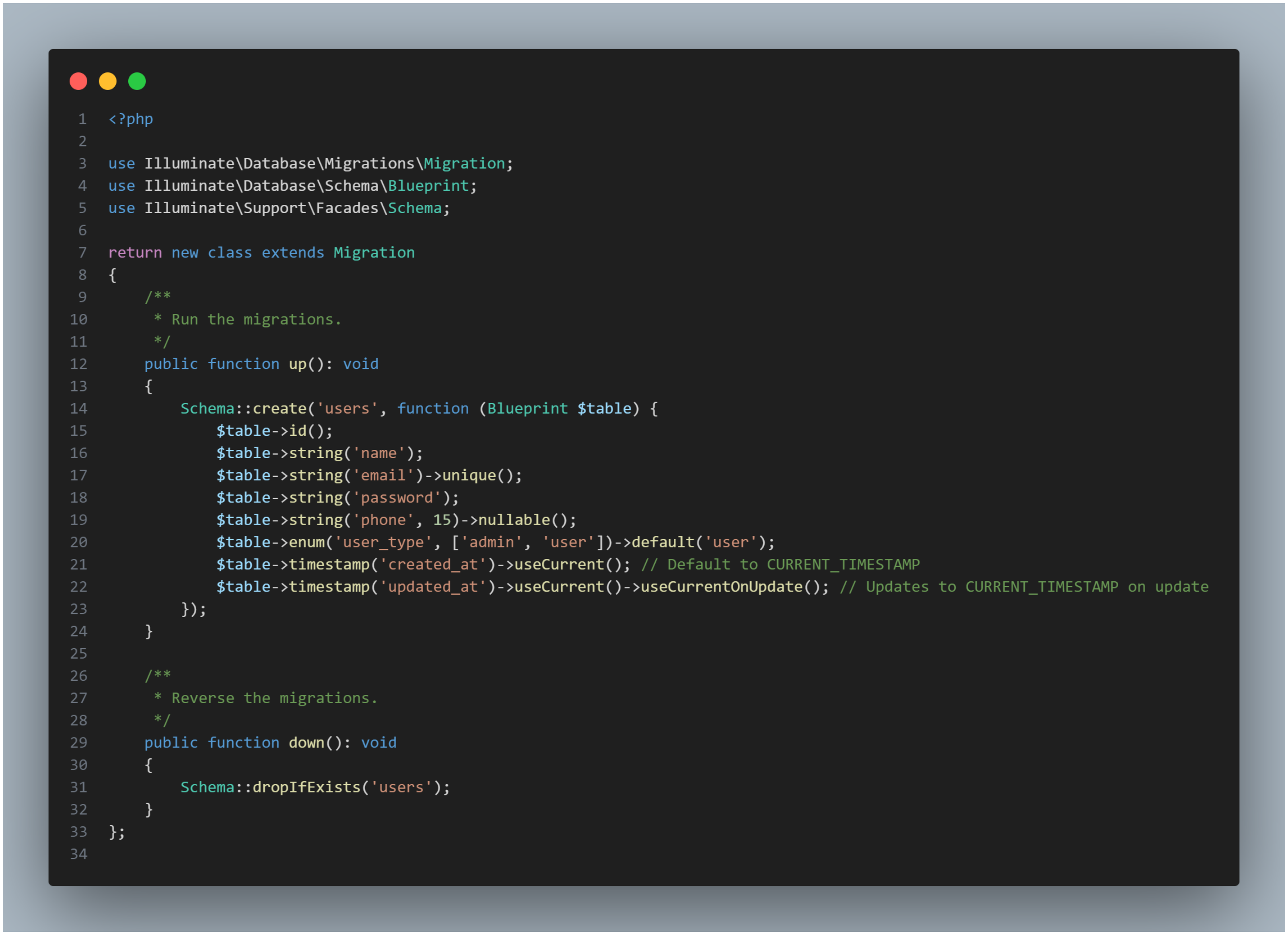
7. payments

Stores payment information for bookings.

Column Name	Data Type	Constraints
id	BIGINT UNSIGNED	Primary Key, Auto Increment
booking_id	BIGINT UNSIGNED	Foreign Key (`bookings.id`)
amount	DECIMAL(8, 2)	NOT NULL
payment_method	ENUM('cash', 'card', 'mobile')	NOT NULL
payment_status	ENUM('pending', 'completed', 'failed')	DEFAULT 'pending'
payment_date	DATETIME	NOT NULL
created_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP
updated_at	TIMESTAMP	DEFAULT CURRENT_TIMESTAMP ON UPDATE CURRENT_TIMESTAMP

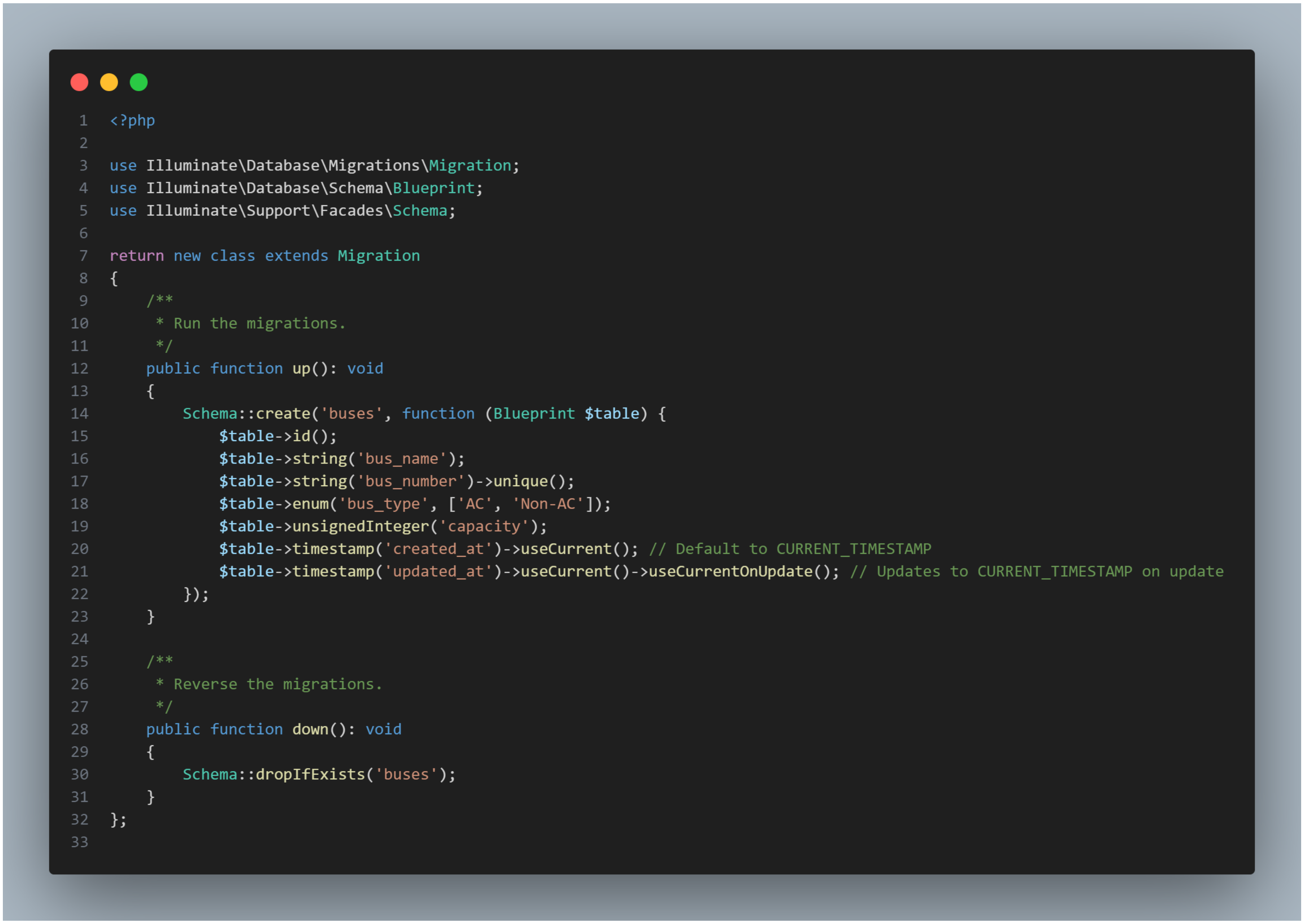
১. শুরুতে Base Table Create করে ফেলব(Migration + Database এ স্টোর)

php artisan make:migration create_users_table



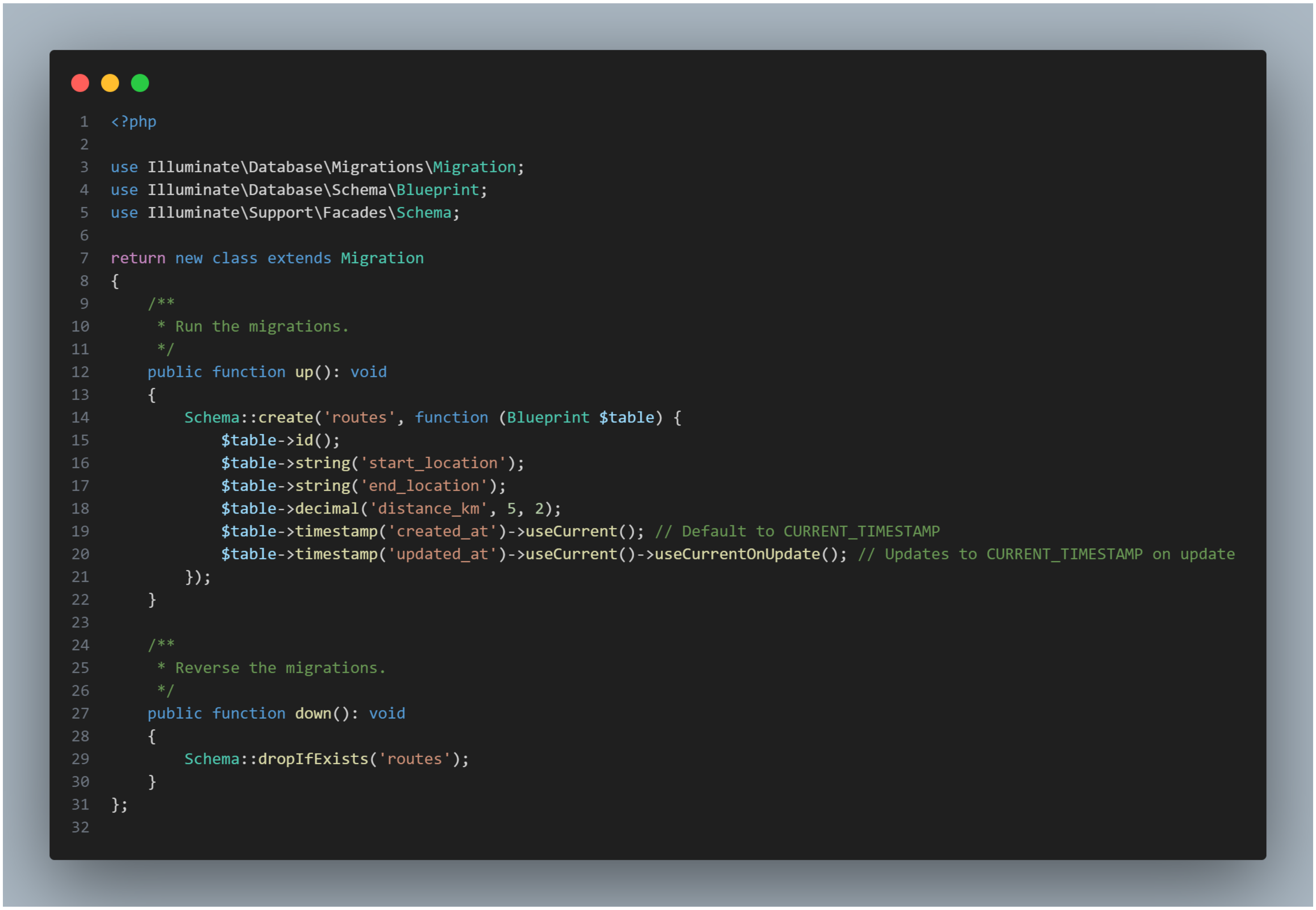
```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('users', function (Blueprint $table) {
            $table->id();
            $table->string('name');
            $table->string('email')->unique();
            $table->string('password');
            $table->string('phone', 15)->nullable();
            $table->enum('user_type', ['admin', 'user'])->default('user');
            $table->timestamp('created_at')->useCurrent(); // Default to CURRENT_TIMESTAMP
            $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate(); // Updates to CURRENT_TIMESTAMP on update
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('users');
    }
};
```

```
php artisan make:migration create_buses_table
```



```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('buses', function (Blueprint $table) {
            $table->id();
            $table->string('bus_name');
            $table->string('bus_number')->unique();
            $table->enum('bus_type', ['AC', 'Non-AC']);
            $table->unsignedInteger('capacity');
            $table->timestamp('created_at')->useCurrent(); // Default to CURRENT_TIMESTAMP
            $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate(); // Updates to CURRENT_TIMESTAMP on update
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('buses');
    }
};

```

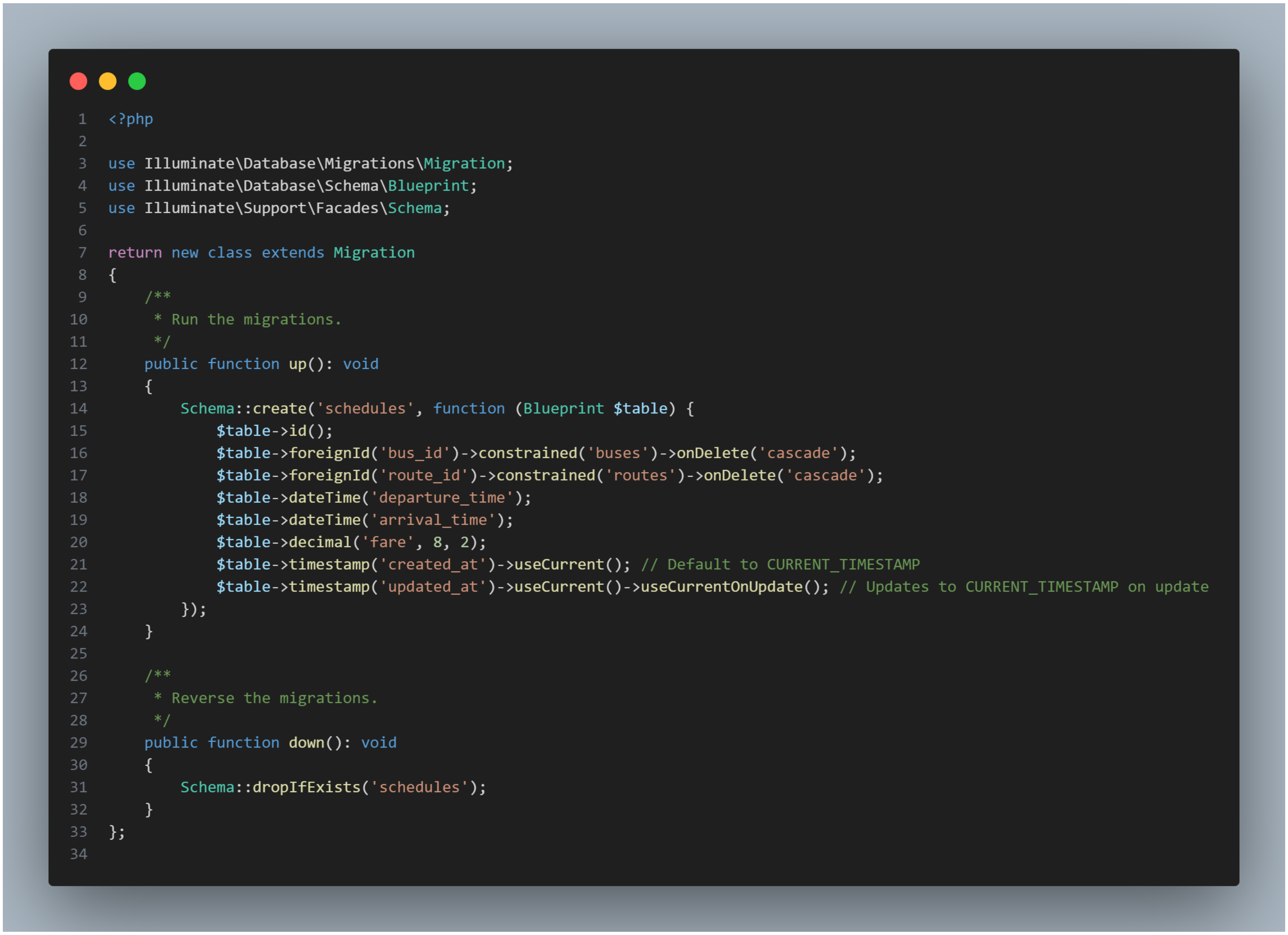
php artisan make:migration create_routes_table



```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('routes', function (Blueprint $table) {
            $table->id();
            $table->string('start_location');
            $table->string('end_location');
            $table->decimal('distance_km', 5, 2);
            $table->timestamp('created_at')->useCurrent(); // Default to CURRENT_TIMESTAMP
            $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate(); // Updates to CURRENT_TIMESTAMP on update
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('routes');
    }
};

```

php artisan migrate

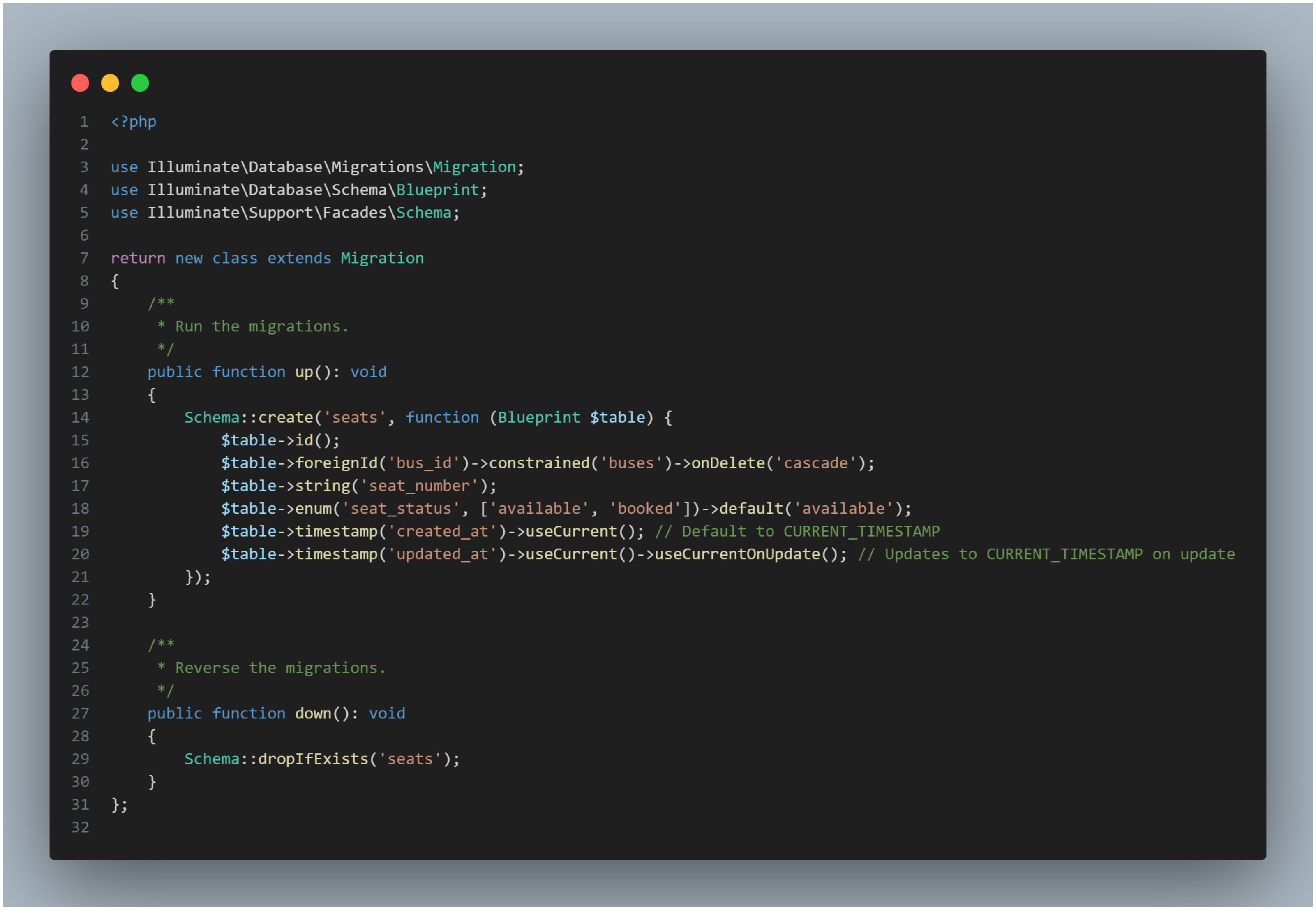
php artisan make:migration create_schedules_table



```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('schedules', function (Blueprint $table) {
            $table->id();
            $table->foreignId('bus_id')->constrained('buses')->onDelete('cascade');
            $table->foreignId('route_id')->constrained('routes')->onDelete('cascade');
            $table->dateTime('departure_time');
            $table->dateTime('arrival_time');
            $table->decimal('fare', 8, 2);
            $table->timestamp('created_at')->useCurrent(); // Default to CURRENT_TIMESTAMP
            $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate(); // Updates to CURRENT_TIMESTAMP on update
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('schedules');
    }
};

```

php artisan migrate

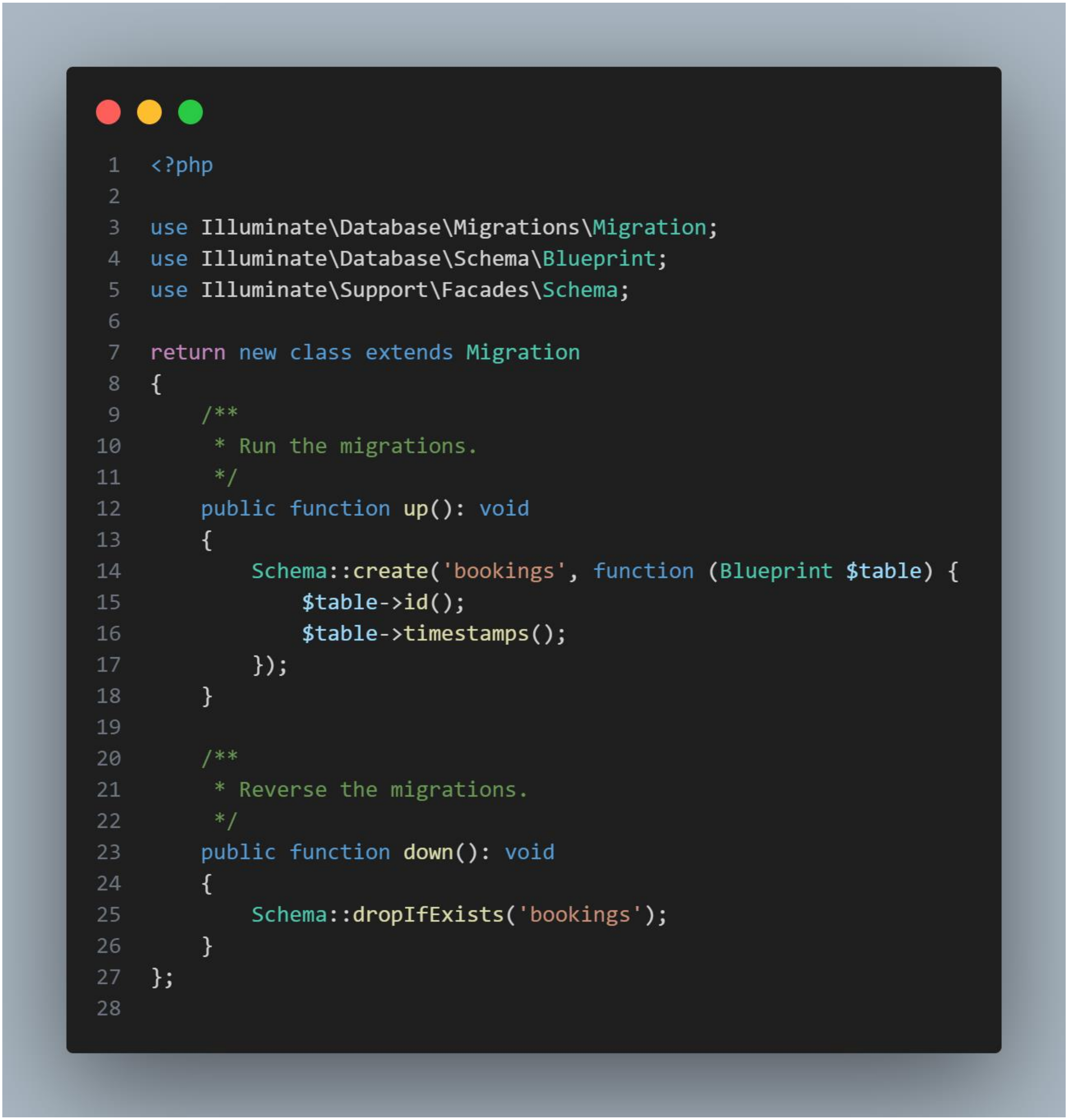
php artisan make:migration create_seats_table



```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('seats', function (Blueprint $table) {
            $table->id();
            $table->foreignId('bus_id')->constrained('buses')->onDelete('cascade');
            $table->string('seat_number');
            $table->enum('seat_status', ['available', 'booked'])->default('available');
            $table->timestamp('created_at')->useCurrent(); // Default to CURRENT_TIMESTAMP
            $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate(); // Updates to CURRENT_TIMESTAMP on update
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('seats');
    }
};
```

Php artisan migrate

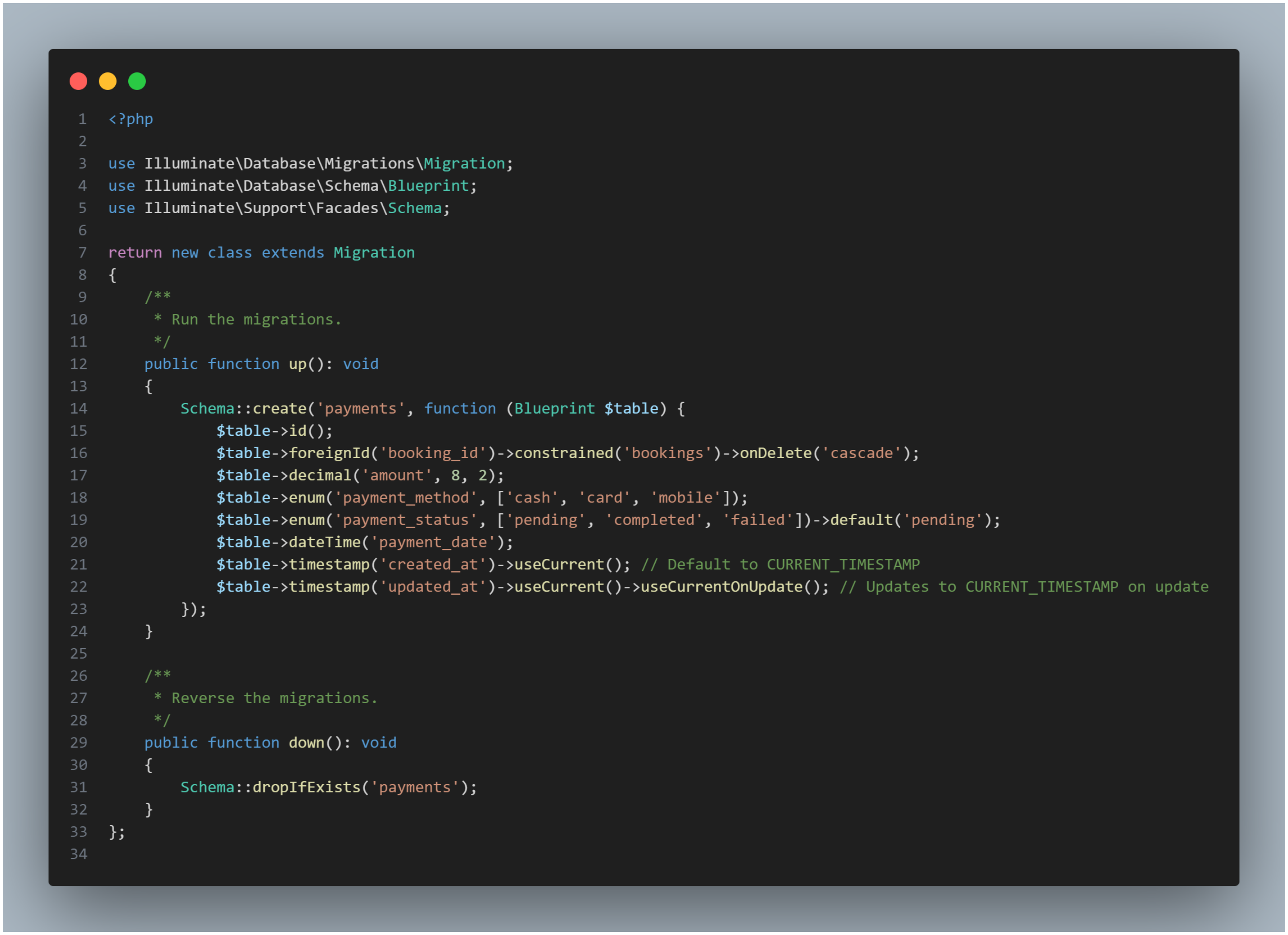
php artisan make:migration create_bookings_table



```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('bookings', function (Blueprint $table) {
            $table->id();
            $table->timestamps();
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('bookings');
    }
};

```

Php artisan migrate

php artisan make:migration create_payments_table



```php
<?php

use Illuminate\Database\Migrations\Migration;
use Illuminate\Database\Schema\Blueprint;
use Illuminate\Support\Facades\Schema;

return new class extends Migration
{
    /**
     * Run the migrations.
     */
    public function up(): void
    {
        Schema::create('payments', function (Blueprint $table) {
            $table->id();
            $table->foreignId('booking_id')->constrained('bookings')->onDelete('cascade');
            $table->decimal('amount', 8, 2);
            $table->enum('payment_method', ['cash', 'card', 'mobile']);
            $table->enum('payment_status', ['pending', 'completed', 'failed'])->default('pending');
            $table->dateTime('payment_date');
            $table->timestamp('created_at')->useCurrent(); // Default to CURRENT_TIMESTAMP
            $table->timestamp('updated_at')->useCurrent()->useCurrentOnUpdate(); // Updates to CURRENT_TIMESTAMP on update
        });
    }

    /**
     * Reverse the migrations.
     */
    public function down(): void
    {
        Schema::dropIfExists('payments');
    }
};

```

Php artisan migrate