SERVER-SIDE
WEB DEVELOPMENT
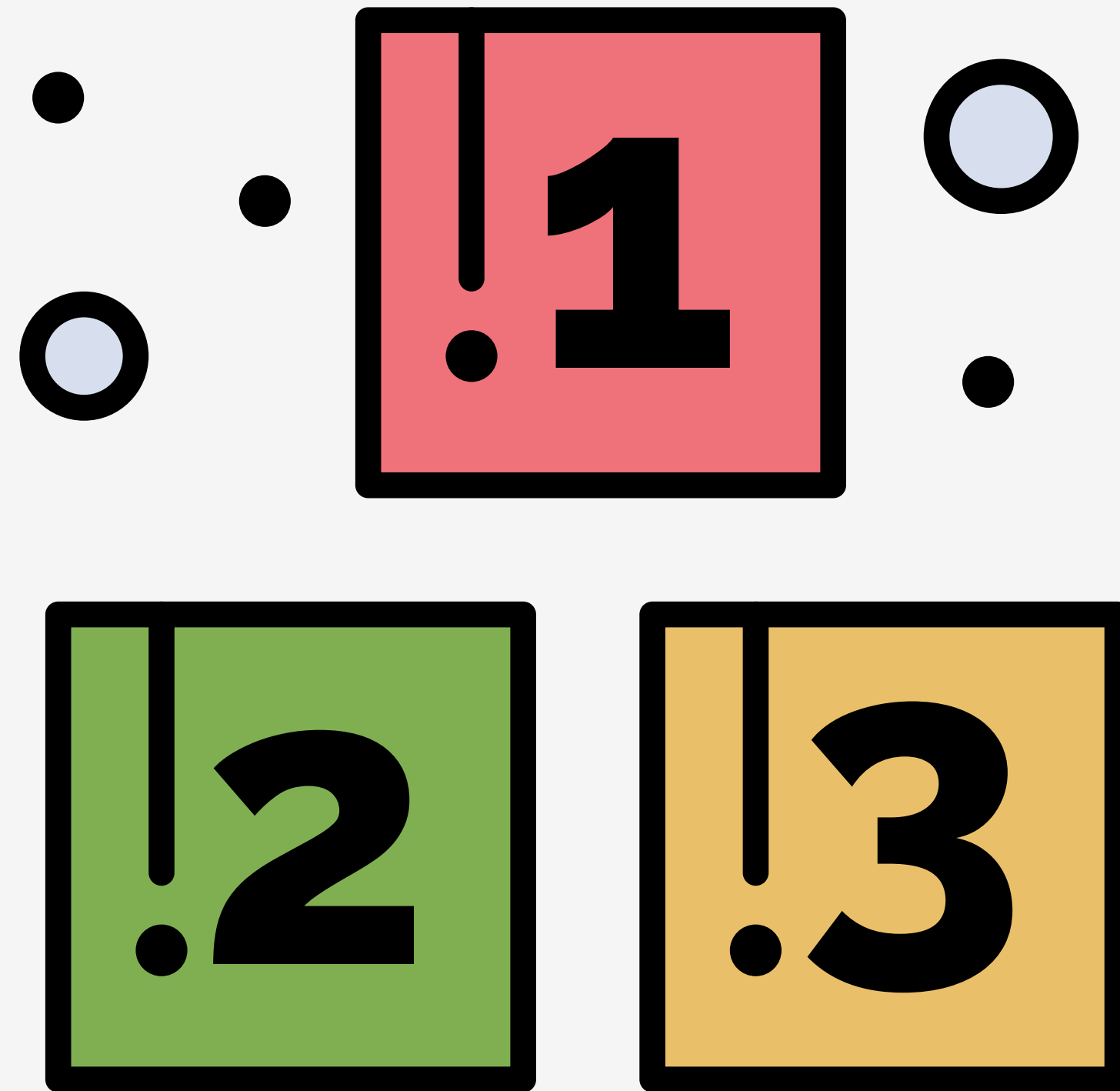
Lecture 8

TODAY'S TOPICS

- Databases in Laravel

- Laravel Models

- Laravel Controllers

- Laravel Eloquent

QUESTIONS

DATABASE IN LARAVEL
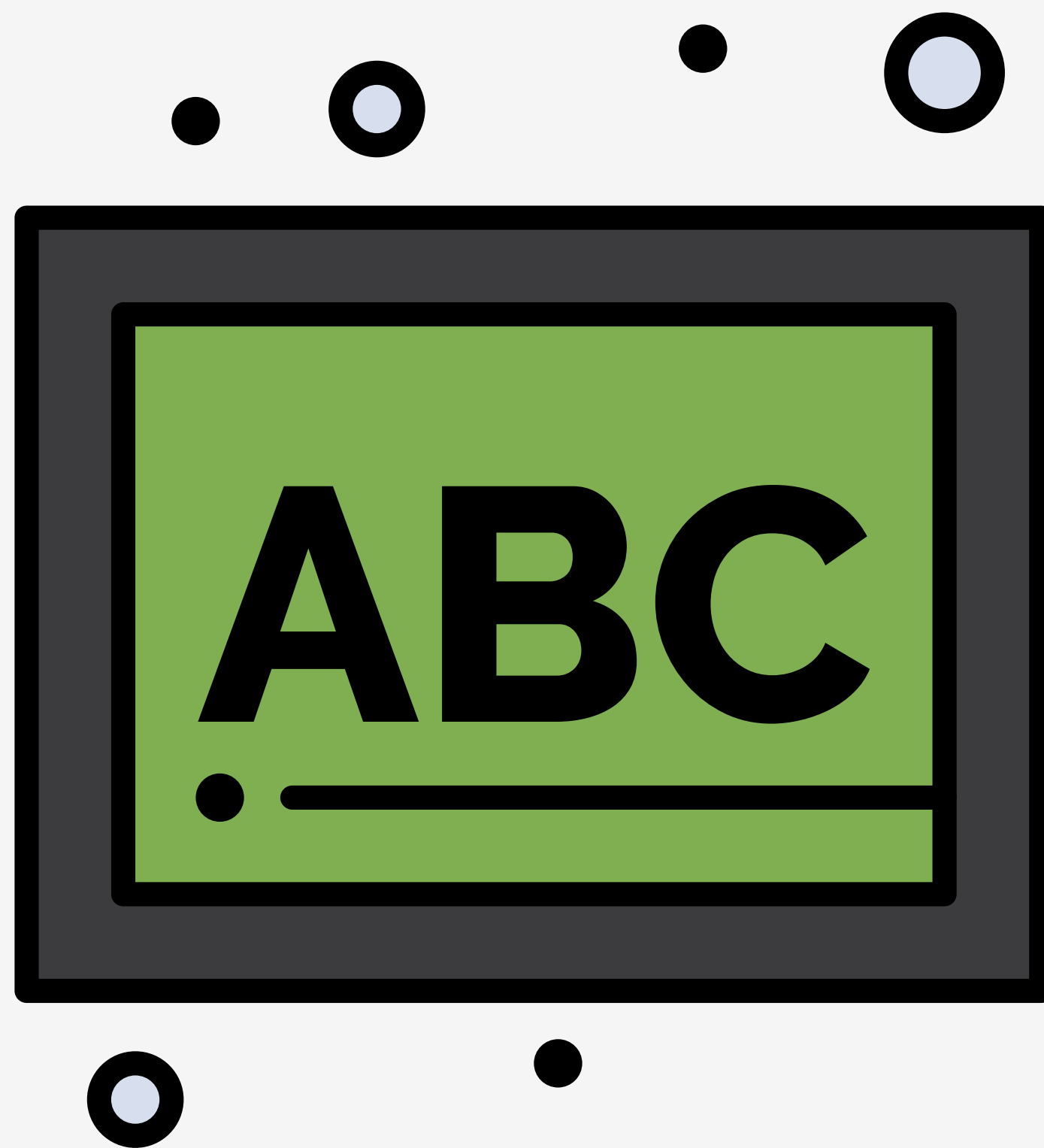
DATABASES IN LARAVEL

- Laravel has greatly simplified the process of working with databases

- Laravel provides databases connections out of the box

- Configure database setting in the .env file

.ENV

```
DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=laravel
DB_USERNAME=root
DB_PASSWORD=
```

LARAVEL MODELS

LARAVEL MODELS

- In MVC, the Model represent the data

- In Laravel, a Model is a class that is used to interact with a database table

- The easiest way to create a Model is to use `artisan`

ARTISAN

```
# Creates a connection to the movies table
php artisan make:model Movie

# Creates a controller with the Model
php artisan make:model Movie -c
```

MODEL

```php
<?php

namespace App;

use Illuminate\Database\Eloquent\Model;

class Movie extends Model
{
    //
}
```
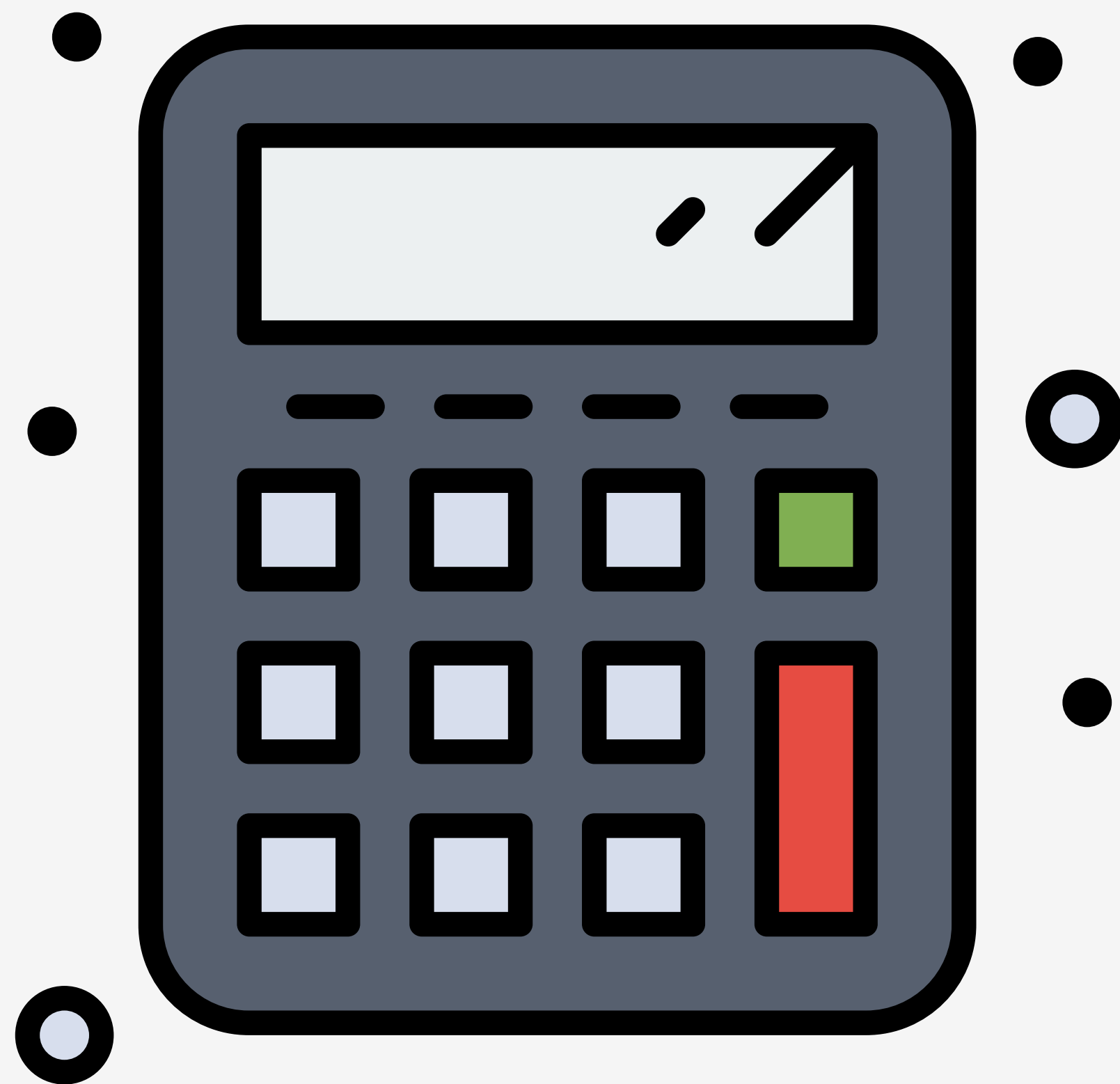
DEMO

LARAVEL CONTROLLERS

LARAVEL CONTROLLERS

- In MVC, the Controller is the logic of the application and act as a bridge between the View and the Model

- In Laravel, a Controller is a class that contains methods that handle a page's logic and return what should be displayed

- Routes can directly point to the a Controller's method

CONTROLLER

```php
<?php

namespace App\Http\Controllers;

use Illuminate\Http\Request;

class MovieController extends Controller
{
    public function index () {


    }
}
```

ROUTES

```php
// Laravel 7
Route::get('/', 'MovieController@index');


// Laravel 8
use App\Http\Controllers\MovieController;


Route::get('/', [MovieController::class, 'index']);
```
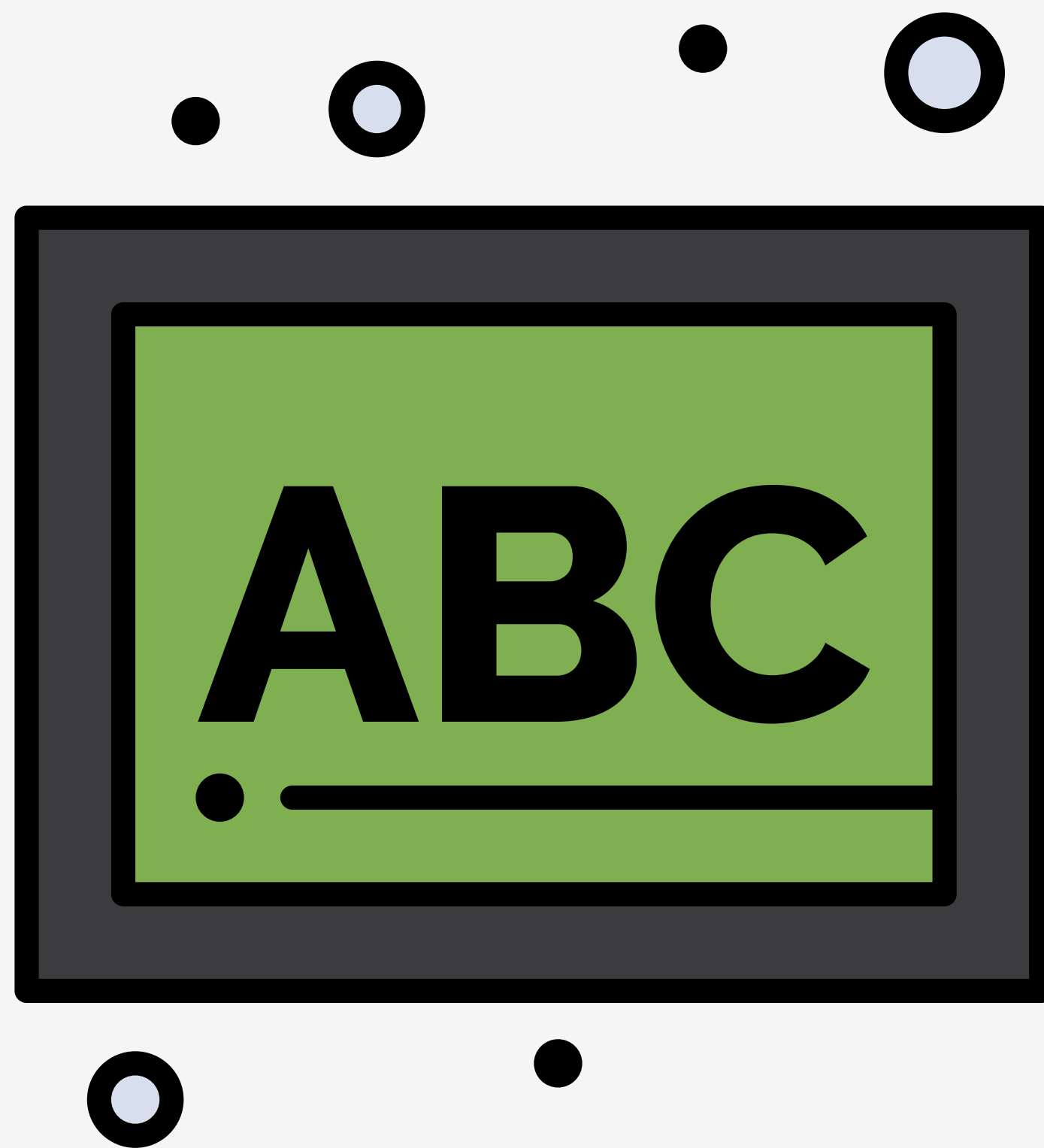
DEMO

LARAVEL ELOQUENT

LARAVEL ELOQUENT

- **Eloquent** is the interface that is used to hand the interactions and is build on PDO.

- **Eloquent** has many conventions on how tables and columns should be named

- These conventions can be overridden by changing the values of the specific properties in the Model class

MODEL

```php
<?php

namespace App;

use Illuminate\Database\Eloquent\Model;

class Movie extends Model
{
    protected $primaryKey = 'movie_id';
}
```
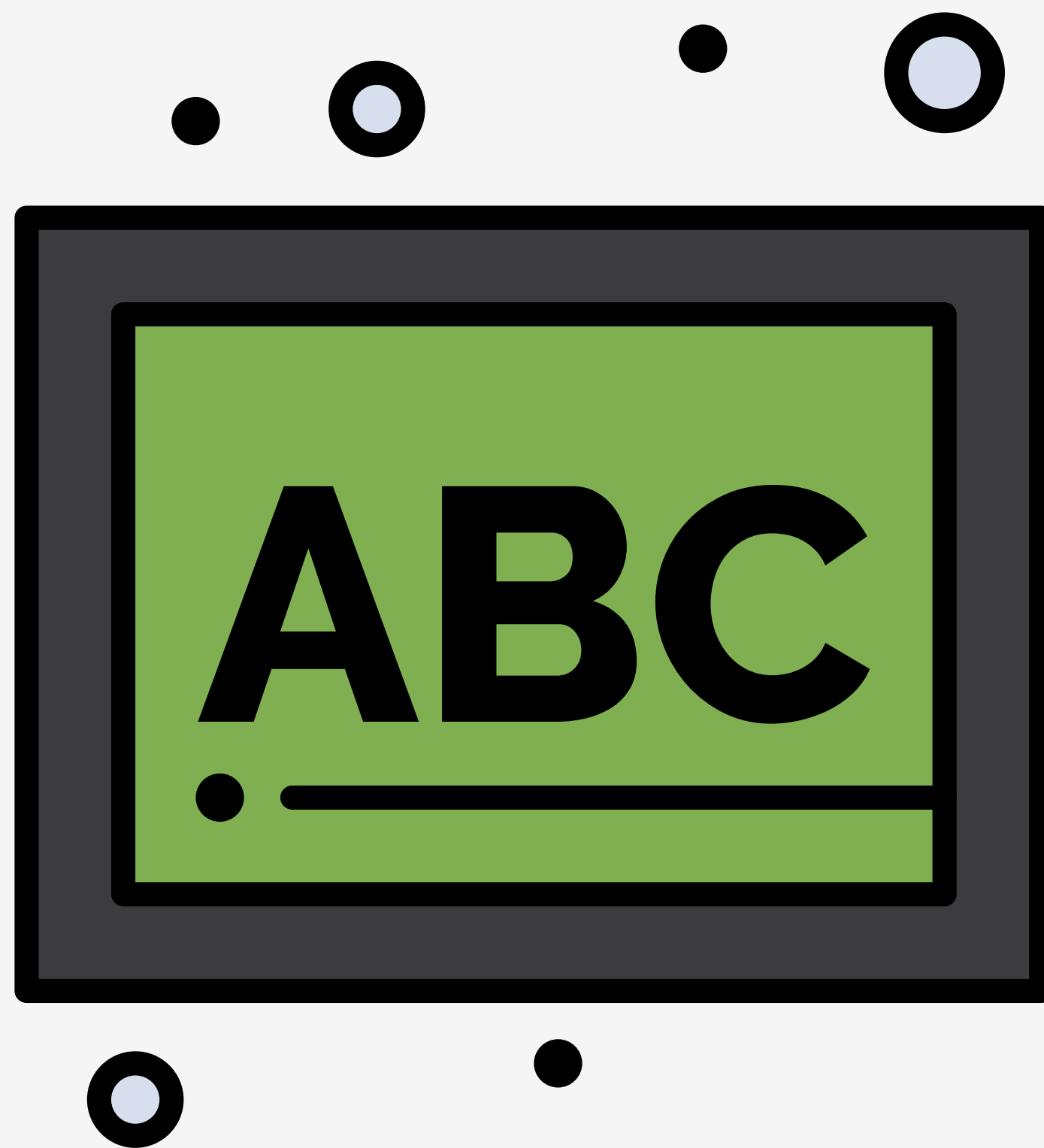
LARAVEL ELOQUENT

ABC

- **Eloquent** methods are used to retrieve and interact with database tables

- The `all` method is used to retrieve all rows from a table

- The `where` method is used to filter the rows

- The `get` or `first` method must be used with `where`

ELOQUENT

```php
// Retrieve all movies
$movies = App\Movie::all();

foreach ($movies as $movie) {
  echo $movie->movie_title;
}


// Filter movies
$movies = App\Movie::where('genre_id', 2)
    ->get();

foreach ($movies as $movie) {
  echo $movie->movie_title;
}
```
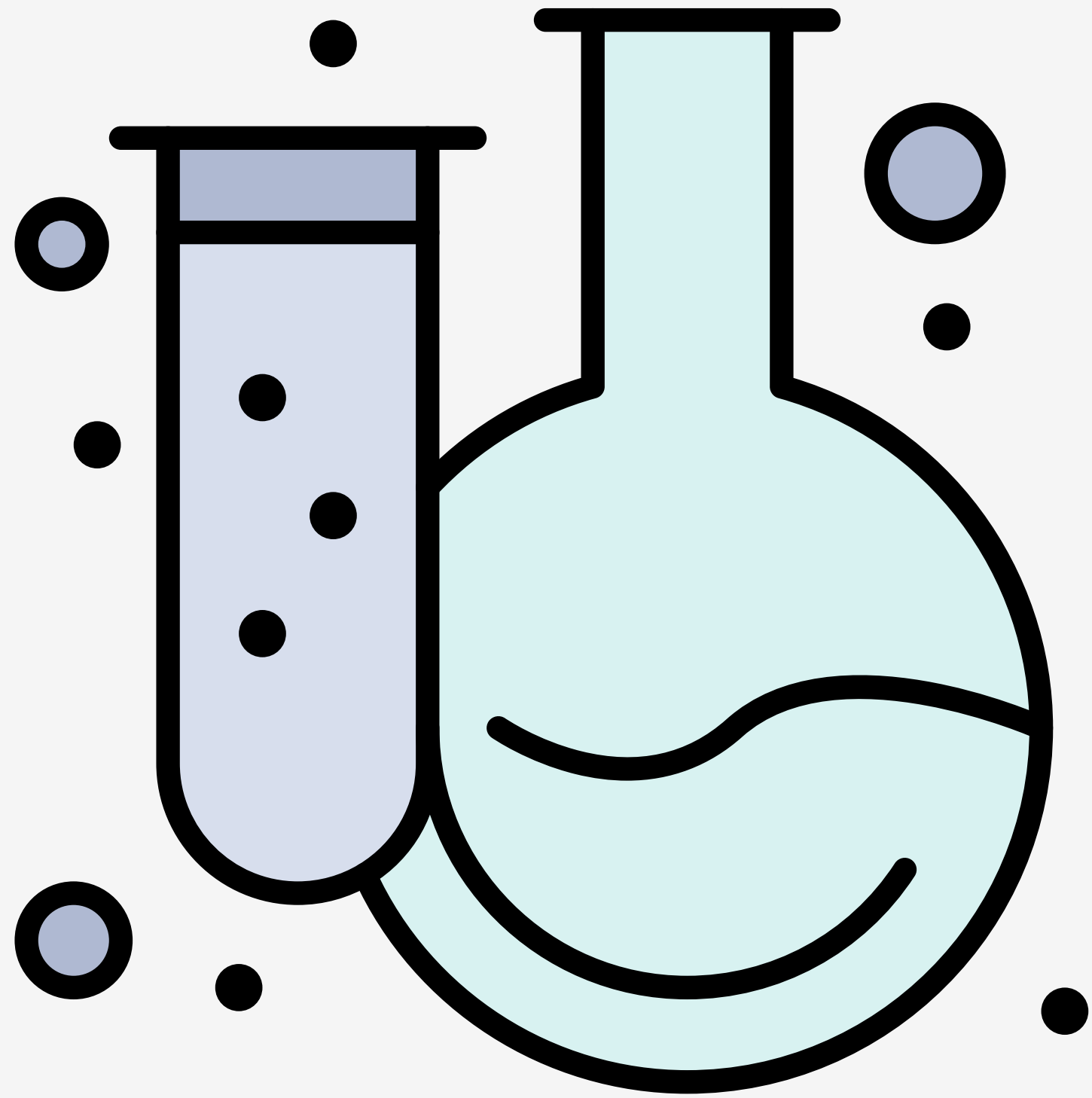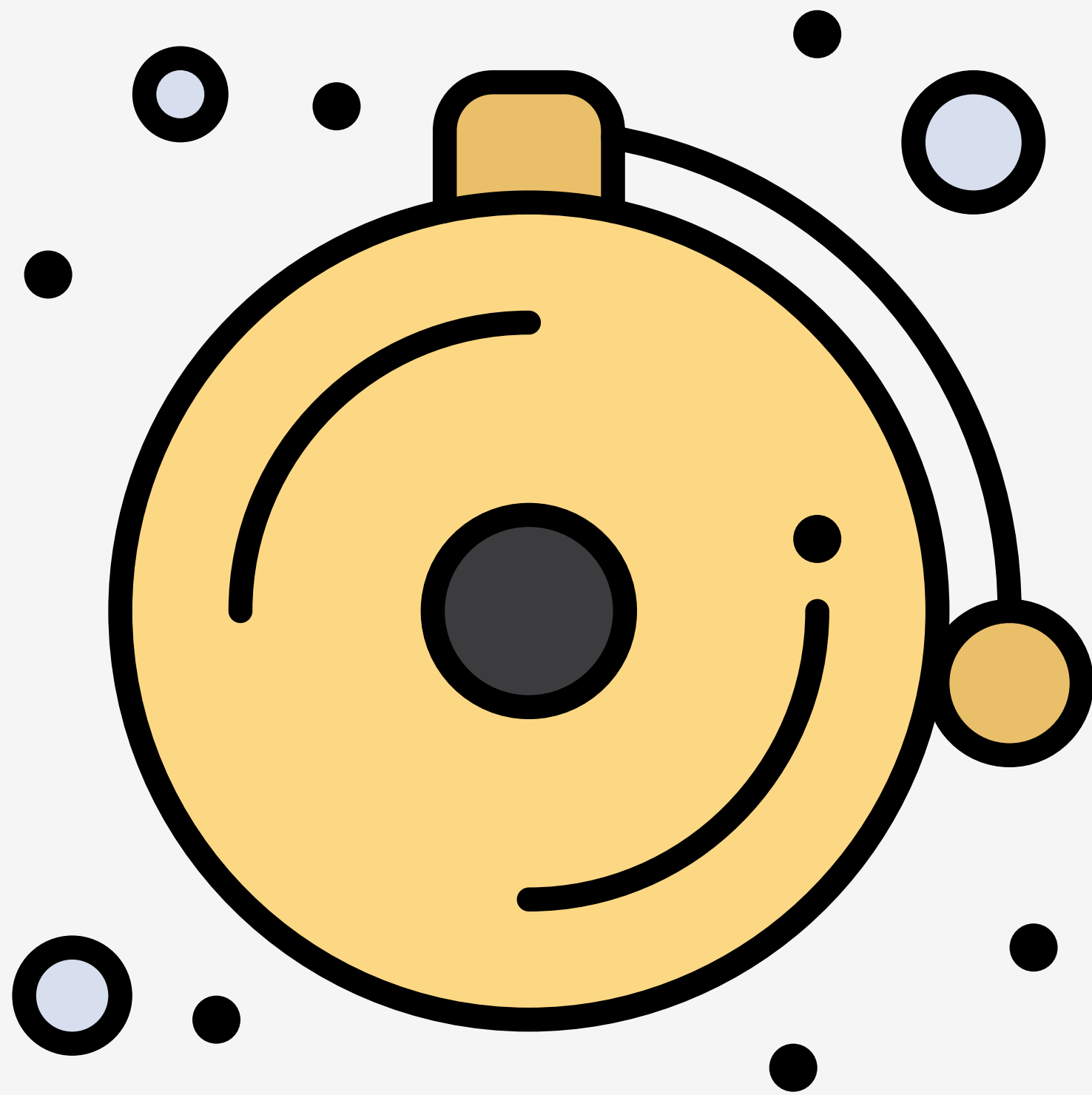
DEMO

MOVIE MAYHEM SITE

- *GITHUB CLASSROOM ASSIGNMENT*

- Create a Movie DB site based on the Movie Mayhem Database and the templates provided

- *DUE:* Thu. Dec. 17 @ 11:59 PM

NEXT TIME...

- Forms in Laravel

- **Participation:** Grocery List