

# CSC348: Coursework 1

## Models

Pokemon.php:

```
app > Models > 🐉 Pokemon.php
You, 10 hours ago | 1 author (You)
1  <?php
2
3  namespace App\Models;
4
5  use Illuminate\Database\Eloquent\Factories\HasFactory;
6  use Illuminate\Database\Eloquent\Model;
7
8  class Pokemon extends Model
9  {
10     use HasFactory;
11
12     public function trainer()
13     {
14         return $this->hasOne(Trainer::class);
15     }
16 }
17
```

**Trainer.php:**

```
app > Models > 🐘 Trainer.php
You, 36 minutes ago | 1 author (You)
1  <?php
2
3  namespace App\Models;
4
5  use Illuminate\Database\Eloquent\Factories\HasFactory;
6  use Illuminate\Database\Eloquent\Model;
7  use App\Models\Pokemon;
8
9  class Trainer extends Model
10 {
11     use HasFactory;
12
13     public function pokemons()
14     {
15         return $this->hasMany(Pokemon::class);
16     }
17 }
18
```

## Factories

### PokemonFactory.php:

```
database > factories > 🐞 PokemonFactory.php
You, 37 minutes ago | 1 author (You)
1  <?php
2
3  namespace Database\Factories;
4
5  use Illuminate\Database\Eloquent\Factories\Factory;
6  use App\Models\Trainer;
7
8  /**
9   * @extends \Illuminate\Database\Eloquent\Factories\Factory<\App\Models\Pokemon>
10  */
11  class PokemonFactory extends Factory
12  {
13      /**
14       * Define the model's default state.
15       *
16       * @return array<string, mixed>
17       */
18      public function definition()
19      {
20          return [
21              'name' => fake()->name(),
22              'HP' => fake()->numberBetween(10,100),
23              'type' =>fake()->randomElement(['fire','water','electric','grass']),
24              'trainer_id' => Trainer::inRandomOrder()->first()->id,
25          ];
26      }
27  }
28
```

**TrainerFactory.php:**

```
database > factories > 🐞 TrainerFactory.php
You, 10 hours ago | 1 author (You)
1  <?php
2
3  namespace Database\Factories;
4
5  use Illuminate\Database\Eloquent\Factories\Factory;
6
7  /**
8   * @extends \Illuminate\Database\Eloquent\Factories\Factory<\App\Models\Trainer>
9   */
10 class TrainerFactory extends Factory
11 {
12     /**
13      * Define the model's default state.
14      *
15      * @return array<string, mixed>
16      */
17     public function definition(): array
18     {
19         return [
20             'name' => fake()->name(),
21         ];
22     }
23 }
24
```

## Migrations

### 2024\_10\_24\_124615\_create\_trainers\_table.php:

```
database > migrations > 🐛 2024_10_24_124615_create_trainers_table.php
You, 10 hours ago | 1 author (You)

1  <?php
2
3  use Illuminate\Database\Migrations\Migration;
4  use Illuminate\Database\Schema\Blueprint;
5  use Illuminate\Support\Facades\Schema;
6
7  return new class extends Migration
8  {
9      /**
10       * Run the migrations.
11       */
12     public function up()
13     {
14         Schema::create('trainers', function (Blueprint $table) {
15             $table->id();
16             $table->string('name');
17             $table->timestamps();
18         });
19     }
20
21     /**
22      * Reverse the migrations.
23      */
24     public function down(): void
25     {
26         Schema::dropIfExists('trainers');
27     }
28 };
29
```

**2024\_10\_25\_151712\_create\_pokemon\_table.php:**

```
database > migrations > 🐞 2024_10_25_151712_create_pokemon_table.php
You, 30 minutes ago | 1 author (You)

1  <?php
2
3  use Illuminate\Database\Migrations\Migration;
4  use Illuminate\Database\Schema\Blueprint;
5  use Illuminate\Support\Facades\Schema;
6
7  return new class extends Migration
8  {
9      /**
10       * Run the migrations.
11       */
12     public function up()
13     {
14         Schema::create('pokemon', function (Blueprint $table) {
15             $table->id();
16             $table->string('name');
17             $table->integer('HP');
18             $table->string('type');
19             $table->bigInteger('trainer_id')->unsigned();
20             $table->timestamps();
21
22             $table->foreign('trainer_id')->references('id')->on('trainers')
23             ->onDelete('cascade')->onUpdate('cascade');
24         });
25     }
26 }
```

```
26
27     /**
28      * Reverse the migrations.
29      */
30     public function down(): void
31     {
32         Schema::dropIfExists('pokemon');
33     }
34 };
35
```

## Seeders

### DatabaseSeeder.php:

```
database > seeders > DatabaseSeeder.php
You, 10 hours ago | 1 author (You)
1  <?php
2
3  namespace Database\Seeders;
4
5  use App\Models\User;
6  // use Illuminate\Database\Console\Seeds\WithoutModelEvents;
7  use Illuminate\Database\Seeder;
8
9  class DatabaseSeeder extends Seeder
10 {
11     /**
12      * Seed the application's database.
13      */
14     public function run()
15     {
16         $this->call(TrainerTableSeeder::class);
17         $this->call(PokemonTableSeeder::class);
18     }
19 }
20
```

**PokemonTableSeeder.php:**

```
database > seeders > 🐾 PokemonTableSeeder.php
You, 10 hours ago | 1 author (You)
1  <?php
2
3  namespace Database\Seeders;
4
5  use Illuminate\Database\Console\Seeds\WithoutModelEvents;
6  use Illuminate\Database\Seeder;
7  use App\Models\Pokemon;
8
9  class PokemonTableSeeder extends Seeder
10 {
11     /**
12      * Run the database seeds.
13      */
14     public function run()
15     {
16         $p1 = new Pokemon;
17         $p1->name = "Brian";
18         $p1->HP = 40;
19         $p1->type = 'water';
20         $p1->trainer_id = 1;
21         $p1->save();
22
23         Pokemon::factory()->count(100)->create();
24     }
25 }
26
```



**TrainerTableSeeder.php:**

```
database > seeders > 🐘 TrainerTableSeeder.php
You, 12 minutes ago | 1 author (You)
1  <?php
2
3  namespace Database\Seeders;
4
5  use Illuminate\Database\Console\Seeds\WithoutModelEvents;
6  use Illuminate\Database\Seeder;
7  use App\Models\Trainer;
8
9  class TrainerTableSeeder extends Seeder
10 {
11     /**
12      * Run the database seeds.
13      */
14     public function run()
15     {
16         $t = new Trainer;
17         $t->name = 'Ash';
18         $t->save();
19
20         Trainer::factory()->count(5)->create();
21     }
22 }
23
```

**.env**

```
DB_CONNECTION=mysql
DB_HOST=mysql
DB_PORT=3306
DB_DATABASE=laravel
DB_USERNAME=sail
DB_PASSWORD=password
```