

Lab 8

# Working with Databases –



## 1. Create companies Table

```
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(): void
13     {
14         Schema::create('companies', function (Blueprint $table) {
15             $table->id();
16             $table->string('name');
17             $table->string('address')->nullable();
18             $table->string('website')->nullable();
19             $table->string('email')->comment('Email of the company');
20             $table->timestamps();
21         });
22     }
23
24     /**
25     * Reverse the migrations.
26     */
27     public function down(): void
28     {
29         Schema::dropIfExists('companies');
30     }
31 };
32
```

## 2. Create tasks Table

```
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(): void
13     {
14         Schema::create('tasks', function (Blueprint $table) {
15             $table->id();
16             $table->string('name');
17             $table->string('description')->nullable();
18             $table->date('due_at')->nullable();
19             $table->boolean('status')->nullable()->comment('NULL: Not started, FALSE: In progress completed');
20             $table->timestamps();
21         });
22     }
23
24     /**
25      * Reverse the migrations.
26      */
27     public function down(): void
28     {
29         Schema::dropIfExists('tasks');
30     }
31 };
32
```

### 3. Add priority Columns to tasks Table

```
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(): void
13     {
14         Schema::table('tasks', function (Blueprint $table) {
15             $table->tinyInteger('priority')->default(1)->after('status');
16         });
17     }
18
19     /**
20     * Reverse the migrations.
21     */
22     public function down(): void
23     {
24         Schema::table('tasks', function (Blueprint $table) {
25             $table->dropColumn('priority');
26         });
27     }
28 };
29
```

#### 4. Rename due\_at Column to due\_date in tasks Table

```
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(): void
13     {
14         Schema::table('tasks', function (Blueprint $table) {
15             $table->renameColumn('due_at', 'due_date');
16         });
17     }
18
19     /**
20     * Reverse the migrations.
21     */
22     public function down(): void
23     {
24         Schema::table('tasks', function (Blueprint $table) {
25             $table->renameColumn('due_date', 'due_at');
26         });
27     }
28 };
29
```

## 5. Create relationship via user\_id between users table and tasks table

```
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(): void
13     {
14         Schema::table('tasks', function (Blueprint $table) {
15             $table->unsignedBigInteger('user_id')->after('id');
16             $table->foreign('user_id')->references('id')->on('users');
17         });
18     }
19
20     /**
21     * Reverse the migrations.
22     */
23     public function down(): void
24     {
25         Schema::table('tasks', function (Blueprint $table) {
26             $table->dropColumn('user_id');
27         });
28     }
29 };
30
```

## 6. ContactDB Table

### - Companies table

5/21/23, 6:08 PM

mysql.pjapon24th.com / mysql / ContactDB / companies | phpMyAdmin 5.2.1

#### companies

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	id	bigint		UNSIGNED	No	None		AUTO_INCREMENT
2	name	varchar(255)	utf8mb4_unicode_ci		No	None		
3	address	varchar(255)	utf8mb4_unicode_ci		Yes	NULL		
4	website	varchar(255)	utf8mb4_unicode_ci		Yes	NULL		
5	email	varchar(255)	utf8mb4_unicode_ci		No	None	Email of the company	
6	created_at	timestamp			Yes	NULL		
7	updated_at	timestamp			Yes	NULL		

#### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
PRIMARY	BTREE	Yes	No	id	0	A	No	

#### Partitions

No partitioning defined!

#### Information

Space usage			Row statistics	
Data	16.0	KiB	Format	dynamic
Index	0	B	Collation	utf8mb4_unicode_ci
Overhead	0	B	Next autoindex	0
Effective	16.0	KiB	Creation	May 21, 2023 at 08:51 AM
Total	16.0	KiB	Last update	May 21, 2023 at 11:08 AM
			Last check	May 21, 2023 at 11:08 AM

## - Tasks table

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### tasks

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	<b>id</b>	bigint		UNSIGNED	No	<i>None</i>		AUTO_INCREMENT
2	<b>user_id</b>	bigint		UNSIGNED	No	<i>None</i>		
3	<b>name</b>	varchar(255)	utf8mb4_unicode_ci		No	<i>None</i>		
4	<b>description</b>	varchar(255)	utf8mb4_unicode_ci		Yes	<i>NULL</i>		
5	<b>due_date</b>	date			Yes	<i>NULL</i>		
6	<b>status</b>	tinyint(1)			Yes	<i>NULL</i>	NULL: Not started, FALSE: In progress completed	
7	<b>priority</b>	tinyint			No	1		
8	<b>created_at</b>	timestamp			Yes	<i>NULL</i>		
9	<b>updated_at</b>	timestamp			Yes	<i>NULL</i>		

### Indexes

Keyname	Type	Unique	Packed	Column	Cardinality	Collation	Null	Comment
<b>PRIMARY</b>	BTREE	Yes	No	id	0	A	No	
<b>tasks_user_id_foreign</b>	BTREE	No	No	user_id	0	A	No	

### Partitions

No partitioning defined!