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Tugas : Jobsheet 3 (MIGRATION, SEEDER, DB FAÇADE, QUERY BUILDER, dan ELOQUENT ORM)

A. PENGATURAN DATABASE

Praktikum 1

1. Create Database



2. Configure .env

```
APP_NAME=Laravel
APP_ENV=local
APP_KEY=
APP_DEBUG=true
APP_URL=http://localhost

LOG_CHANNEL=stack
LOG_DEPRECATIONS_CHANNEL=null
LOG_LEVEL=debug

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

B. MIGRATION

1. Praktikum 2.1

1. Create_m_level_table

```

public function up(): void
{
    Schema::create('m_level', function (Blueprint $table) {
        $table->id('level_id');
        $table->string('level_kode',10) -> unique;
        $table->string('level_nama',100);
        $table->timestamps();
    });
}

```

2. Create m_kategori_table

```

public function up(): void
{
    Schema::create('m_kategori', function (Blueprint $table) {
        $table->id('kategori_id');
        $table->string('kategori_kode',10)->unique();
        $table->string('kategori_nama',100);
        $table->timestamps();
    });
}

```

3. Create m_user_table

```

public function up(): void
{
    Schema::create('m_user', function (Blueprint $table) {
        $table->id('user_id');
        $table->unsignedBigInteger('level_id')->index();
        $table->string('username', 20)->unique();
        $table->string('nama', 100);
        $table->string('password');
        $table->timestamps();

        $table->foreign('level_id')->references('level_id')->on('m_level');
    });
}

```

4. Create m_barang_table

```

public function up(): void
{
    Schema::create('m_barang', function (Blueprint $table) {
        $table->id('barang_id');
        $table->unsignedBigInteger('kategori_id')->index();
        $table->string('barang_kode',10)->unique();
        $table->string('barang_nama',100);
        $table->integer('harga_beli');
        $table->integer('harga_jual');
        $table->timestamps();
        $table->foreign('kategori_id')->references('kategori_id')->on('m_kategori');
    });
}

```

5. Create t_penjualan_table

```
public function up(): void
{
    Schema::create('t_penjualan', function (Blueprint $table) {
        $table->id('penjualan_id');
        $table->unsignedBigInteger('user_id')->index();
        $table->string('pembeli',50);
        $table->string('penjualan_kode',20);
        $table->dateTime('penjualan_tanggal');
        $table->timestamps();

        $table->foreign('user_id')->references('user_id')->on('m_user');
    });
}
```

6. Create t_stok_table

```
public function up(): void
{
    Schema::create('t_stok', function (Blueprint $table) {
        $table->id('stok_id');
        $table->unsignedBigInteger('barang_id')->index();
        $table->unsignedBigInteger('user_id')->index();
        $table->dateTime('stok_tanggal');
        $table->integer('stok_jumlah');
        $table->timestamps();

        $table->foreign('barang_id')->references('barang_id')->on('m_barang');
        $table->foreign('user_id')->references('user_id')->on('m_user');
    });
}
```

7. Create t_penjualan_detail_table

```
public function up(): void
{
    Schema::create('t_penjualan_detail', function (Blueprint $table) {
        $table->id('detail_id');
        $table->unsignedBigInteger('penjualan_id')->index();
        $table->unsignedBigInteger('barang_id')->index();
        $table->integer('harga');
        $table->integer('jumlah');
        $table->timestamps();

        $table->foreign('penjualan_id')->references('penjualan_id')->on('t_penjualan');
        $table->foreign('barang_id')->references('barang_id')->on('m_barang');
    });
}
```

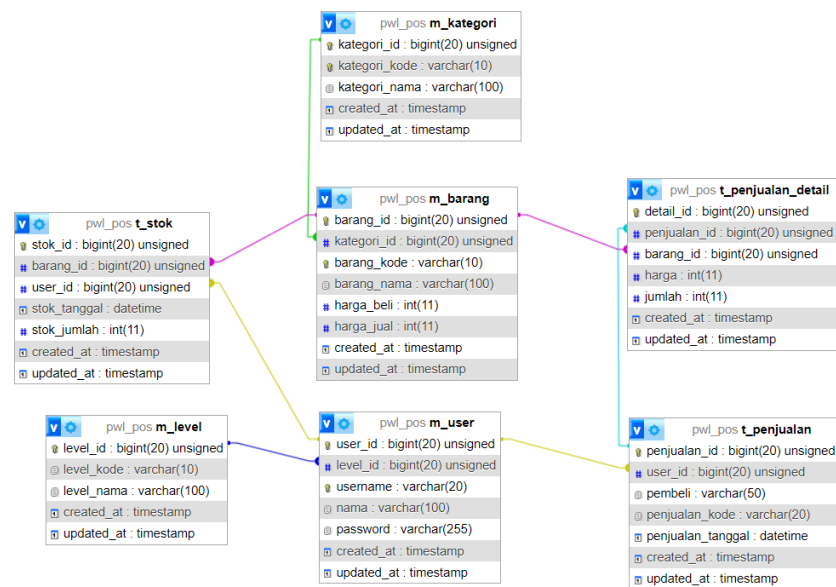
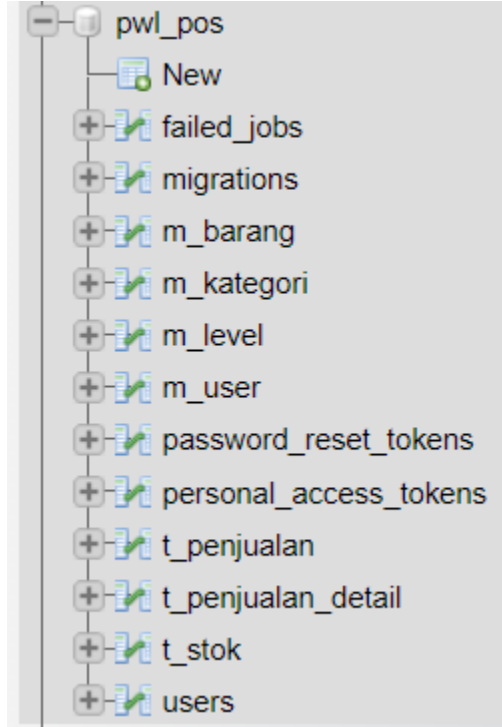
8. Php artisan migrate

```
INFO Running migrations.

2014_10_12_000000_create_users_table ..... 71ms DONE
2014_10_12_100000_create_password_reset_tokens_table ..... 5ms DONE
2019_08_19_000000_create_failed_jobs_table ..... 55ms DONE
2019_12_14_000001_create_personal_access_tokens_table ..... 33ms DONE
2024_03_10_080532_create_m_level_table ..... 5ms DONE
2024_03_10_081013_create_m_kategori_table ..... 28ms DONE
2024_03_10_083941_create_m_user_table ..... 77ms DONE
2024_03_10_093712_create_m_barang_table ..... 59ms DONE
2024_03_10_094858_create_t_penjualan_table ..... 50ms DONE
2024_03_10_100031_create_t_stok_table ..... 88ms DONE
2024_03_10_100545_create_t_penjualan_detail_table ..... 90ms DONE

PS D:\SEMESTER 4\WEB LANJUT\TUGAS\PNL_POS>
```

9. Hasil



C. Seeder

```
PS D:\SEMESTER 4\WEB LANDUT\TUGAS\PMI_POS> php artisan db:seed --class=LevelSeeder
INFO Seeding database.

PS D:\SEMESTER 4\WEB LANDUT\TUGAS\PMI_POS> php artisan db:seed --class=UserSeeder
INFO Seeding database.

PS D:\SEMESTER 4\WEB LANDUT\TUGAS\PMI_POS> php artisan db:seed --class=KategoriSeeder
INFO Seeding database.

PS D:\SEMESTER 4\WEB LANDUT\TUGAS\PMI_POS> php artisan db:seed --class=BarangSeeder
INFO Seeding database.

PS D:\SEMESTER 4\WEB LANDUT\TUGAS\PMI_POS> php artisan db:seed --class=StokSeeder
INFO Seeding database.










PS D:\SEMESTER 4\WEB LANDUT\TUGAS\PMI_POS> php artisan db:seed --class=TransaksiSeeder
INFO Seeding database.

php artisan db:seed --class=TransaksiDetailSeederL_POS>
INFO Seeding database.
```

1. Level seeder

```
public function run(): void
{
    $data = [
        ['level_id' => 1, 'level_kode' => 'ADM', 'level_nama' => 'Administrator'],
        ['level_id' => 2, 'level_kode' => 'MNG', 'level_nama' => 'Manager'],
        ['level_id' => 3, 'level_kode' => 'STF', 'level_nama' => 'Staff / Kasir ' ]
    ];

    DB::table('m_level') ->insert($data);
}
```

				level_id	level_kode	level_nama	created_at	updated_at
<input type="checkbox"/>				1	ADM	Administrator	NULL	NULL
<input type="checkbox"/>				2	MNG	Manager	NULL	NULL
<input type="checkbox"/>				3	STF	Staff / Kasir	NULL	NULL

2. User seeder

```
7
public function run(): void
{
    $data =[
        [
            'user_id' => 1,
            'level_id' => 1,
            'username' => 'admin' ,
            'nama' => 'Administrator',
            'password' => Hash::make('12345')
        ],
        [
            'user_id' => 2,
            'level_id' => 2,
            'username' => 'manager',
            'nama' => 'Manager',
            'password' => Hash::make('12345')
        ],
        [
            'user_id' => 3,
            'level_id' => 3,
            'username' => 'staff' ,
            'nama' => 'Staff/Kasir',
            'password' => Hash::make('12345')
        ],
    ];
    DB::table('m_user')->insert($data);
}
```

You, 2 days ago • [praktikum 3] Membuat file seeder

		user_id	level_id	username	nama	password	created_at	updated_at
<input type="checkbox"/>	Edit Copy Delete	1	1	admin	Administrator	\$2y\$12\$T658yIkhrQQ2AGbr4gBeekFGCxS6.x2Jgepel04br2...	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	2	2	manager	Manager	\$2y\$12\$eWPqBLh6dFE4iJ9KA8ImUezWY1OMdOoBdDsgREPwczl...	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	3	3	staff	Staff/Kasir	\$2y\$12\$J6NSNTP5AKJfAMxYIRr.Ye00UDfSt245ww6J6ehAy7j...	NULL	NULL

3. Kategori Seeder

```

public function run(): void
{
    $data = [
        [
            'kategori_id' => 1,
            'kategori_kode' => 'K001',
            'kategori_nama' => 'Makanan'
        ],
        [
            'kategori_id' => 2,
            'kategori_kode' => 'K002',
            'kategori_nama' => 'Minuman'
        ],
        [
            'kategori_id' => 3,
            'kategori_kode' => 'K003',
            'kategori_nama' => 'Kebutuhan pokok'
        ],
        [
            'kategori_id' => 4,
            'kategori_kode' => 'K004',
            'kategori_nama' => 'Kesehatan'
        ],
        [
            'kategori_id' => 5,
            'kategori_kode' => 'K005',
            'kategori_nama' => 'Kebutuhan rumah tangga'
        ]
    ];
    DB::table('m_kategori')->insert($data);
}

```

				kategori_id	kategori_kode	kategori_nama	created_at	updated_at
<input type="checkbox"/>	Edit	Copy	Delete	1	K001	Makanan	NULL	NULL
<input type="checkbox"/>	Edit	Copy	Delete	2	K002	Minuman	NULL	NULL
<input type="checkbox"/>	Edit	Copy	Delete	3	K003	Kebutuhan pokok	NULL	NULL
<input type="checkbox"/>	Edit	Copy	Delete	4	K004	Kesehatan	NULL	NULL
<input type="checkbox"/>	Edit	Copy	Delete	5	K005	Kebutuhan rumah tangga	NULL	NULL

4. Barang Seeder


```
public function run(): void
{
    $data = [
        [
            'kategori_id' => 1,
            'barang_kode' => 'B001',
            'barang_nama' => 'Indomie goreng 75gr',
            'harga_beli' => 2500,
            'harga_jual' => 3000,
        ],
        [
            'kategori_id' => 1,
            'barang_kode' => 'B002',
            'barang_nama' => 'Sedap goreng 75gr',
            'harga_beli' => 3000,
            'harga_jual' => 4000,
        ],
        [
            'kategori_id' => 2,
            'barang_kode' => 'B003',
            'barang_nama' => 'Pocari sweet 500ml',
            'harga_beli' => 5000,
            'harga_jual' => 10000,
        ],
        [
            'kategori_id' => 2,
            'barang_kode' => 'B004',
            'barang_nama' => 'Ultramilk',
            'harga_beli' => 5000,
            'harga_jual' => 10000,
        ],
    ],
```

```
[
  {
    'kategori_id' => 3,
    'barang_kode' => 'B005',
    'barang_nama' => 'Beras',
    'harga_beli' => 5000,
    'harga_jual' => 10000,
  },
  {
    'kategori_id' => 3,
    'barang_kode' => 'B006',
    'barang_nama' => 'Minyak goreng',
    'harga_beli' => 15000,
    'harga_jual' => 20000,
  },
  {
    'kategori_id' => 4,
    'barang_kode' => 'B007',
    'barang_nama' => 'Minyak Kayu Putih',
    'harga_beli' => 5000,
    'harga_jual' => 10000,
  },
  {
    'kategori_id' => 4,
    'barang_kode' => 'B008',
    'barang_nama' => 'Salonpas',
    'harga_beli' => 5000,
    'harga_jual' => 10000,
  },
],
```

```

[
    [
        'kategori_id' => 5,
        'barang_kode' => 'B009',
        'barang_nama' => 'Sunlight',
        'harga_beli' => 5000,
        'harga_jual' => 10000,
    ],
    [
        'kategori_id' => 5,
        'barang_kode' => 'B010',
        'barang_nama' => 'Mama lemon',
        'harga_beli' => 5000,
        'harga_jual' => 10000,
    ],
];

DB::table('m_barang')->insert($data);

```




























	barang_id	kategori_id	barang_kode	barang_nama	harga_beli	harga_jual	created_at	updated_at
<input type="checkbox"/> Edit Copy Delete	1	1	B001	Indomie goreng 75gr	2500	3000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	2	1	B002	Sedap goreng 75gr	3000	4000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	3	2	B003	Pocari sweet 500ml	5000	10000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	4	2	B004	Ultramilk	5000	10000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	5	3	B005	Beras	5000	10000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	6	3	B006	Minyak goreng	15000	20000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	7	4	B007	Minyak Kayu Putih	5000	10000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	8	4	B008	Salonpas	5000	10000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	9	5	B009	Sunlight	5000	10000	NULL	NULL
<input type="checkbox"/> Edit Copy Delete	10	5	B010	Mama lemon	5000	10000	NULL	NULL

5. Stok Seeder

```
public function run(): void
{
    $data= [
        [
            'stok_id' => 1 ,
            'barang_id' => 1,
            'user_id' => 3,
            'stok_tanggal' => now(),
            'stok_jumlah' => 10,
        ],
        [
            'stok_id' => 2,
            'barang_id' => 2,
            'user_id' => 3,
            'stok_tanggal' => now(),
            'stok_jumlah' => 10,
        ],
        [
            'stok_id' => 3,
            'barang_id' => 3,
            'user_id' => 3,
            'stok_tanggal' => now(),
            'stok_jumlah' => 10,
        ],
        [
            'stok_id' => 4,
            'barang_id' => 4,
            'user_id' => 3,
            'stok_tanggal' => now(),
            'stok_jumlah' => 10,
        ]
    ]
}
```

```

    'stok_id' => 5,
    'barang_id' => 5,
    'user_id' => 3,
    'stok_tanggal' => now(),
    'stok_jumlah' => 10,
  ],
  [
    'stok_id' => 6,
    'barang_id' => 6,
    'user_id' => 3,
    'stok_tanggal' => now(),
    'stok_jumlah' => 10,
  ],
  [
    'stok_id' => 7,
    'barang_id' => 7,
    'user_id' => 3,
    'stok_tanggal' => now(),
    'stok_jumlah' => 10,
  ],
  [
    'stok_id' => 8,
    'barang_id' => 8,
    'user_id' => 3,
    'stok_tanggal' => now(),
    'stok_jumlah' => 10,
  ],
  [
    'stok_id' => 9,
    'barang_id' => 9,
    'user_id' => 3,
    'stok_tanggal' => now(),
    'stok_jumlah' => 10,
  ],
  [
    'stok_id' => 10,
    'barang_id' => 10,
    'user_id' => 3,
    'stok_tanggal' => now(),
    'stok_jumlah' => 10,
  ],
]
```










































































<div>← T →</div>						stok_id	barang_id	user_id	stok_tanggal	stok_jumlah	created_at	updated_at	
<input type="checkbox"/>		Edit		Copy		Delete	1	1	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	2	2	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	3	3	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	4	4	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	5	5	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	6	6	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	7	7	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	8	8	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	9	9	3	2024-03-12 15:31:45	10	NULL	NULL
<input type="checkbox"/>		Edit		Copy		Delete	10	10	3	2024-03-12 15:31:45	10	NULL	NULL

6. Penjualan Seeder

```
public function run(): void
{
    for ($i = 1; $i <= 10; $i++) {
        DB::table('t_penjualan')->insert([
            'penjualan_id' => $i,
            'user_id' => 2,
            'pembeli' => 'Pembeli ' . $i,
            'penjualan_kode' => 'PJ00' . $i,
            'penjualan_tanggal' => now(),
        ]);
    }
}
```

		penjualan_id	user_id	pembeli	penjualan_kode	penjualan_tanggal	created_at	updated_at
<input type="checkbox"/>	Edit Copy Delete	1	2	Pembeli 1	PJ001	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	2	2	Pembeli 2	PJ002	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	3	2	Pembeli 3	PJ003	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	4	2	Pembeli 4	PJ004	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	5	2	Pembeli 5	PJ005	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	6	2	Pembeli 6	PJ006	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	7	2	Pembeli 7	PJ007	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	8	2	Pembeli 8	PJ008	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	9	2	Pembeli 9	PJ009	2024-03-12 15:40:37	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	10	2	Pembeli 10	PJ0010	2024-03-12 15:40:37	NULL	NULL

7. Detail Penjualan

		detail_id	penjualan_id	barang_id	harga	jumlah	created_at	updated_at
<input type="checkbox"/>	 Edit  Copy  Delete	1	1	2	15246	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	2	1	3	18750	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	3	1	4	8634	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	4	2	3	8652	3	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	5	2	4	6053	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	6	2	5	10401	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	7	3	4	10814	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	8	3	5	16497	5	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	9	3	6	17856	3	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	10	4	5	13482	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	11	4	6	8293	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	12	4	7	16027	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	13	5	6	5384	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	14	5	7	18169	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	15	5	8	14693	3	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	16	6	7	13454	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	17	6	8	5517	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	18	6	9	12453	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	19	7	8	17826	5	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	20	7	9	15545	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	21	7	10	14598	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	22	8	9	15971	5	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	23	8	10	7324	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	24	8	1	15969	5	NULL	NULL

<input type="checkbox"/>	 Edit  Copy  Delete	19		7	8	17826	5	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	20		7	9	15545	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	21		7	10	14598	1	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	22		8	9	15971	5	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	23		8	10	7324	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	24		8	1	15969	5	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	25		9	10	14605	3	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	26		9	1	19970	4	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	27		9	2	8299	3	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	28		10	1	11272	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	29		10	2	6611	2	NULL	NULL
<input type="checkbox"/>	 Edit  Copy  Delete	30		10	3	12821	2	NULL	NULL

D. DB Façade

Praktikum 4

1. Modifikasi Route

```
Route::get('/level',[LevelController::class, 'index']);
```

2. Insert Data Via DB Façade

```
DB::insert('insert into m_level(level_kode,level_nama,created_at) values(?,?,?)', ['CUS','Pelanggan',now()]);  
return 'Insert data baru berhasil';
```

Insert data baru berhasil

				level_id	level_kode	level_nama	created_at	updated_at
<input type="checkbox"/>				1	ADM	Administrator	NULL	NULL
<input type="checkbox"/>				2	MNG	Manager	NULL	NULL
<input type="checkbox"/>				3	STF	Staff / Kasir	NULL	NULL
<input type="checkbox"/>				4	CUS	Pelanggan	2024-03-11 03:55:04	NULL

3. Update Data Via DB Façade

```
$row = DB::update('update m_level set level_nama = ? where level_kode = ?', ['Customer', 'CUS']);  
return 'Update data berhasil. Jumlah data yang di update : ' . $row . ' baris';
```

Update data berhasil. Jumlah data yang di update : 1 baris

				level_id	level_kode	level_nama	created_at	updated_at
<input type="checkbox"/>				1	ADM	Administrator	NULL	NULL
<input type="checkbox"/>				2	MNG	Manager	NULL	NULL
<input type="checkbox"/>				3	STF	Staff / Kasir	NULL	NULL
<input type="checkbox"/>				4	CUS	Customer	2024-03-11 03:55:04	NULL

4. Delete Data Via DB Façade

```
$row = DB::delete('delete from m_level where level_kode = ?' , ['CUS']);  
return 'Delete data berhasil. Jumlah data yang di update : ' . $row . ' baris';
```

Delete data berhasil. Jumlah data yang di hapus : 1 baris

<div><div>←T→</div><div></div></div>				level_id	level_kode	level_nama	created_at	updated_at
<input type="checkbox"/>		Edit	Copy Delete	1	ADM	Administrator	NULL	NULL
<input type="checkbox"/>		Edit	Copy Delete	2	MNG	Manager	NULL	NULL
<input type="checkbox"/>		Edit	Copy Delete	3	STF	Staff / Kasir	NULL	NULL

5. Select Data Via DB

```
$data = DB::select('select * from m_level');  
return view('level',['data' => $data]);
```

```
<!DOCTYPE html>  
<html lang="en">  
<head>  
  <meta charset="UTF-8">  
  <meta name="viewport" content="width=device-width, initial-scale=1.0">  
  <title>Data Level Pengguna</title>  
</head>  
<body>  
  <h1>DATA LEVEL PENGGUNA</h1>  
  <table border="1" cellpadding="2" cellspacing="0">  
    <tr>  
      <th>ID</th>  
      <th>Kode Level</th>  
      <th>Nama Level</th>  
    </tr>  
    @foreach ($data as $d)  
      <tr>  
        <td>{{ $d->level_id }}</td>  
        <td>{{ $d->level_kode }}</td>  
        <td>{{ $d->level_nama }}</td>  
      </tr>  
    @endforeach  
  </table>  
</body>  
</html>
```

You, yesterday • [praktikum 4] Implementasi DB Facade

← → ↻ ⓘ 127.0.0.1:8000/level

DATA LEVEL PENGGUNA

ID	Kode Level	Nama Level
1	ADM	Administrator
2	MNG	Manager
3	STF	Staff / Kasir

E. Query Builder Praktikum 5

1. Route modification

```
Route::get('/kategori',[KategoriController::class, 'index']);
```

2. Insert data via query builder

```
$data=[
    'kategori_kode' => 'SNK',
    'kategori_nama' => 'Snack / Makanan Ringan',
    'created_at' => now()
];

DB::table('m_kategori') ->insert($data);
return 'Insert data baru berhasil';
```

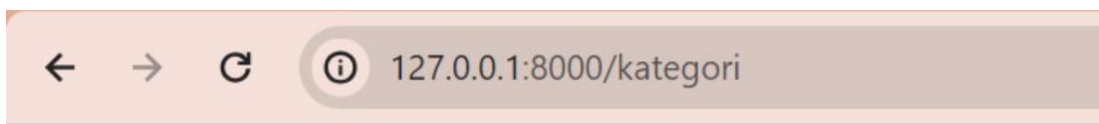
← → ↻ ⓘ 127.0.0.1:8000/kategori

Insert data baru berhasil

		kategori_id	kategori_kode	kategori_nama	created_at	updated_at
<input type="checkbox"/>	Edit Copy Delete	1	K001	Makanan	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	2	K002	Minuman	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	3	K003	Kebutuhan pokok	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	4	K004	Kesehatan	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	5	K005	Kebutuhan rumah tangga	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	6	SNK	Snacj / Makanan Ringan	2024-03-11 04:30:13	NULL

3. Update data via query builder

```
$row = DB::table('m_kategori')->where('kategori_kode', 'SNK')->update(['kategori_nama' => 'Camilan']);
return 'Update data berhasil. Jumlah data yang di update : ' . $row . ' baris';
```

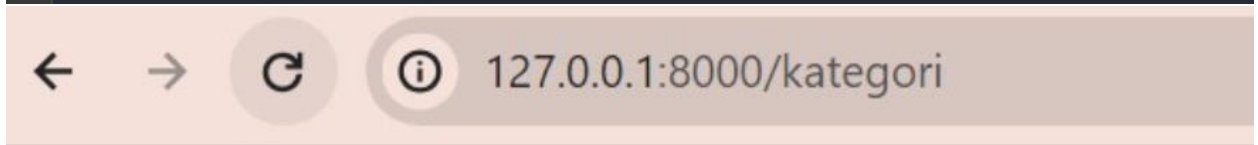


Update data berhasil. Jumlah data yang di update : 1 baris

		kategori_id	kategori_kode	kategori_nama	created_at	updated_at
<input type="checkbox"/>	Edit Copy Delete	1	K001	Makanan	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	2	K002	Minuman	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	3	K003	Kebutuhan pokok	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	4	K004	Kesehatan	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	5	K005	Kebutuhan rumah tangga	NULL	NULL
<input type="checkbox"/>	Edit Copy Delete	6	SNK	Camilan	2024-03-11 04:30:13	NULL

4. Delete data via query builder

```
$row = DB::table('m_kategori') -> where ('kategori_kode','SNK')-> delete();
return 'Delete data berhasil. Jumlah data yang di hapus : ' . $row . ' baris';
```



Delete data berhasil. Jumlah data yang di hapus : 1 baris

				kategori_id	kategori_kode	kategori_nama	created_at	updated_at
<input type="checkbox"/>				1	K001	Makanan	NULL	NULL
<input type="checkbox"/>				2	K002	Minuman	NULL	NULL
<input type="checkbox"/>				3	K003	Kebutuhan pokok	NULL	NULL
<input type="checkbox"/>				4	K004	Kesehatan	NULL	NULL
<input type="checkbox"/>				5	K005	Kebutuhan rumah tangga	NULL	NULL

☐ Check all With selected: Edit Copy Delete Export

5. Read data via query builder

```
$data = DB::table('m_kategori')->get();
return view('kategori',['data'=>$data]);
```

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Data Kategori Barang</title>
</head>

<body>
  <h1>DATA KATEGORI BARANG</h1>
  <table border="1" cellpadding="2" cellspacing="0">
    <tr>
      <th>ID</th>
      <th>Kode Kategori</th>
      <th>Nama Kategori</th>
    </tr>
    @foreach ($data as $d)
      <tr>
        <td>{{ $d->kategori_id }}</td>
        <td>{{ $d->kategori_kode }}</td>
        <td>{{ $d->kategori_nama }}</td>
      </tr>
    @endforeach
  </table>
</body>

</html>
```

You, yesterday • [praktikum 5] Implementasi Query Builder

DATA KATEGORI BARANG

ID	Kode Kategori	Nama Kategori
1	K001	Makanan
2	K002	Minuman
3	K003	Kebutuhan pokok
4	K004	Kesehatan
5	K005	Kebutuhan rumah tangga

F. Eloquent ORM

Praktikum 6

1. User Model

```
You, yesterday | 1 author (You)
class UserModel extends Model
{
    use HasFactory;

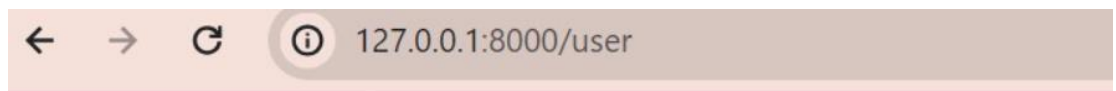
    protected $table = 'm_user';
    protected $primaryKey = 'user_id';
}
```

```
Route::get('/user',[UserController::class, 'index']);
```

```
You, yesterday | I author (you)
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Data User</title>
</head>

<body>
  <h1>Data User</h1>
  <table border="1" cellpadding="2" cellspacing="0">
    <tr>
      <th>ID</th>
      <th>Username</th>
      <th>Nama</th>
      <th>ID Level Pengguna</th>
    </tr>
    @foreach ($data as $d)
      <tr>
        <td>{{ $d->user_id }}</td>
        <td>{{ $d->username }}</td>
        <td>{{ $d->nama }}</td>
        <td>{{ $d->level_id }}</td>
      </tr>
    @endforeach
  </table>
</body>
</html>
```



Data User

ID	Username	Nama	ID Level Pengguna
1	admin	Administrator	1
2	manager	Manager	2
3	staff	Staff/Kasir	3
6	customer-1	Pelanggan	4

Modifikasi user controller


```
$data = [
    'nama' => 'Pelanggan Pertama',
];
UserModel::where('username', 'customer-1')->update($data);
$user = UserModel::all();
return view('user', ['data' => $user]);
```

← → ↻ ⓘ 127.0.0.1:8000/user

Data User

ID	Username	Nama	ID Level Pengguna
1	admin	Administrator	1
2	manager	Manager	2
3	staff	Staff/Kasir	3
6	customer-1	Pelanggan Pertama	4

G. Penutup

1. Pada Praktikum 1 - Tahap 5, apakah fungsi dari APP_KEY pada file setting .env Laravel?

Jawab : APP_KEY digunakan untuk mengamankan data sensitive seperti session dan password, APP_KEY juga digunakan dalam hashing.

2. Pada Praktikum 1, bagaimana kita men-generate nilai untuk APP_KEY?

Jawab : Menggunakan perintah php artisan key:generate pada terminal

3. Pada Praktikum 2.1 - Tahap 1, secara default Laravel memiliki berapa file migrasi? dan untuk apa saja file migrasi tersebut?

Jawab : 2 File migrasi, File ini merupakan setup default laravel yang bertujuan untuk membentuk struktur awal database.

4. Secara default, file migrasi terdapat kode \$table->timestamps();, apa tujuan/output dari fungsi tersebut?

Jawab : Menambahkan dua kolom, yaitu kolom `created_at` dan `updated_at` ke dalam tabel. Kolom `created_at` digunakan untuk mencatat kapan data tersebut dibuat sedangkan `updated_at` digunakan untuk mencatat kapan terakhir data tersebut diperbarui.

5. Pada File Migrasi, terdapat fungsi `$table->id()`; Tipe data apa yang dihasilkan dari fungsi tersebut?

Jawab : Digunakan untuk menambahkan kolom `id` dan menjadikannya primary key.

6. Apa bedanya hasil migrasi pada table `m_level`, antara menggunakan `$table->id()`; dengan menggunakan `$table->id('level_id')`; ?

Jawab : perbedaannya ada di nama kolom tersebut, jika `$table->id()`; maka akan membuat kolom dengan nama `id` sedangkan `$table->id('level_id')`; akan membuat kolom dengan nama `level_id`

7. Pada migration, Fungsi `->unique()` digunakan untuk apa?

Jawab : Agar suatu kolom harus memiliki nilai yang unik. Artinya tidak ada baris yang memiliki nilai sama.

8. Pada Praktikum 2.2 - Tahap 2, kenapa kolom `level_id` pada tabel `m_user` menggunakan `$table->unsignedBigInteger('level_id')`, sedangkan kolom `level_id` pada tabel `m_level` menggunakan `$table->id('level_id')` ?

Jawab : Karena `level_id` pada tabel `m_user` merupakan sebuah FOREIGN KEY dari tabel `m_level`, sedangkan pada tabel `m_level` menggunakan `id` karena kolom `level_id` merupakan PRIMARY KEY dari tabel `m_level`

9. Pada Praktikum 3 - Tahap 6, apa tujuan dari Class Hash? dan apa maksud dari kode program `Hash::make('1234')`;

Jawab : Hash digunakan untuk mengenkripsi data yang perlu disimpan dalam bentuk terenkripsi agar tidak mudah di akses dengan mudah oleh sembarang orang. Kode `Hash::make('1234')`; digunakan untuk menghasilkan versi hashed dari '1234'

10. Pada Praktikum 4 - Tahap 3/5/7, pada query builder terdapat tanda tanya (?), apa kegunaan dari tanda tanya (?) tersebut?

Jawab : Digunakan untuk placeholder untuk nilai yang akan disisipkan ke dalam query

11. Pada Praktikum 6 - Tahap 3, apa tujuan penulisan kode `protected $table = 'm_user'`; dan `protected $primaryKey = 'user_id'`; ?

Jawab : Kode tersebut digunakan untuk mendeklarasi nama tabel dan kolom PRIMARY KEY pada model tersebut. Menggunakan modifier `protected` agar variabel tersebut hanya dapat diakses pada dalam class itu sendiri dan class turunannya

12. Menurut kalian, lebih mudah menggunakan mana dalam melakukan operasi CRUD ke database (DB Façade / Query Builder / Eloquent ORM) ? jelaskan *** Sekian, dan selamat belajar ***

Jawab : Menurut saya lebih mudah memakai Eloquent ORM karena pendekatannya yang abstrak dan berorientasi objek dalam berinteraksi dengan database.