



Jurusan Teknologi Informasi Politeknik Negeri Malang
Jobsheet-11: RESTFUL API 2
Mata Kuliah : Pemrograman Web Lanjut

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LEMBAR JAWABAN JOBSHEET 11

Praktikum 1 - Implementasi Eloquent Accessor

1. Sebelum memulai pastikan REST API, terlebih dahulu pastikan sudah ter instal aplikasi Postman.
2. Kita akan memodifikasi Table m_user dengan menambahkan column : image, buka terminal lalu ketikkan php artisan make:migration add_image_to_m_user_table

```
PS C:\laragon\www\PWL_POS> php artisan make:migration add_image_to_m_user_table  
INFO: Migration [C:\laragon\www\PWL_POS\database\Migrations\2024_05_11_001523_add_image_to_m_user_table.php] created successfully.
```

3. Buka file migrasi tersebut lalu modifikasi seperti ini lalu simpan:

```
database > migrations > 2024_05_11_001523_add_image_to_m_user_table.php > ...  
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('m_user', function (Blueprint $table) {  
15             $table->string('image');  
16         });  
17     }  
18  
19     /**  
20      * Reverse the migrations.  
21      */  
22     public function down(): void  
23     {  
24         Schema::table('m_user', function (Blueprint $table) {  
25             $table->dropColumn('image');  
26         });  
27     }  
28 };
```

4. Lakukan jalankan update migrasi dengan cara: php artisan migrate



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```
PS C:\laragon\www\PWL_POS> php artisan migrate

INFO Running migrations.

2024_05_11_001523_add_image_to_m_user_table ..... 265ms DONE
```

5. Lalu lakukan modifikasi models pada App/Models/UserModel.php

```
app > Models > UserModel.php > ...
15 class UserModel extends Authenticatable implements JWTSubject
44
45     protected function image(): Attribute
46     {
47         return Attribute::make(
48             get: fn ($image) => url('/storage/posts/' . $image),
49         );
50     }
51 }
```

6. Lakukan modifikasi pada Controllers/Api/RegisterController

```
app > Http > Controllers > Api > RegisterController.php > ...
1  <?php
2
3  namespace App\Http\Controllers\Api;
4
5  use App\Models\UserModel;
6  use App\Http\Controllers\Controller;
7  use Illuminate\Http\Request;
8  use Illuminate\Support\Facades\Validator;
9
10 class RegisterController extends Controller
11 {
12     public function __invoke(Request $request)
13     {
14         //set validation
15         $validator = Validator::make($request->all(), [
16             'username' => 'required',
17             'nama' => 'required',
18             'password' => 'required|min:5|confirmed',
19             'level_id' => 'required',
20             'image' => 'required'
21         ]);
22
23         //if validations fails
24         if ($validator->fails()) {
25             return response()->json($validator->errors(), 422);
26         }
27
28         // Create user
29         $user = UserModel::create([
30             'username' => $request->username,
31             'nama' => $request->nama,
32             'password' => bcrypt($request->password),
33             'level_id' => $request->level_id,
```



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```
34 |         'image' => $request->image
35 |     ];
36 |
37 |     // Return response JSON user is created
38 |     if ($user) {
39 |         return response()->json([
40 |             'success' => true,
41 |             'user' => $user,
42 |         ], 201);
43 |     }
44 |
45 |     // Return JSON process insert failed
46 |     return response()->json([
47 |         'success' => false,
48 |     ], 409);
49 | }
50 | }
```

7. Anda dapat menambahkan detail untuk spesifikasi image pada validator

```
//set validation
$validator = Validator::make($request->all(), [
    'username' => 'required',
    'nama' => 'required',
    'password' => 'required|min:5|confirmed',
    'level_id' => 'required',
    'image' => 'required|image|mimes:jpeg,png,jpg,gif,svg|max:2048'
]);
```

8. Ubah atau tambahkan register1 pada routes/api.php

```
routes > api.php > ...
58 | Route::post('/register1', App\Http\Controllers\Api\RegisterController::class)->name('register1');
```

9. Simpan dan akses pada aplikasi Postman, atur pada Body isi manual Key dan Valuenya pada Key image tambahkan value File dan upload gambar <http://127.0.0.1:8000/api/register1> dengan method POST dan klik send



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POST localhost/PWL_POS/public/api/register1 Send

Params Auth Headers (8) Body Pre-req. Tests Settings Cookies

form-data

<input checked="" type="checkbox"/>	username	penggunaempat
<input checked="" type="checkbox"/>	nama	pengguna4
<input checked="" type="checkbox"/>	password	12345
<input checked="" type="checkbox"/>	password_confirmation	12345
<input checked="" type="checkbox"/>	level_id	2
<input checked="" type="checkbox"/>	image	2241720031-min.jpg x

Body 201 Created 1895 ms 738 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "success": true,
3   "user": {
4     "username": "penggunaempat",
5     "nama": "pengguna4",
6     "password": "$2y$12$I44M1yJ8cLFECIKf1.5opu0qoBEldHBkSrfTqpeGwohBTue1iSjta",
7     "level_id": "2",
8     "image": "http://localhost/PWL_POS/public/storage/posts/
9               C:\\Windows\\Temp\\php3ADC.tmp",
10    "updated_at": "2024-05-11T00:32:04.000000Z",
11    "created_at": "2024-05-11T00:32:04.000000Z",
12    "user_id": 21
13  }
14 }
```

10. Pada Controllers/Api/RegisterController bagian create user ganti dengan

```
// Create user
$user = UserModel::create([
    'username' => $request->username,
    'nama' => $request->nama,
    'password' => bcrypt($request->password),
    'level_id' => $request->level_id,
    'image' => $request->image->hashName()
]);
```

11. Uji coba dan screenshot hasilnya apa perbedaan dari yang sebelumnya



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POST localhost/PWL_POS/public/api/register1 Send

Params Auth Headers (8) Body Pre-req. Tests Settings Cookies

form-data

<input checked="" type="checkbox"/>	nama	pengguna5
<input checked="" type="checkbox"/>	password	12345
<input checked="" type="checkbox"/>	password_confirmation	12345
<input checked="" type="checkbox"/>	level_id	2
<input checked="" type="checkbox"/>	image	2241720031-min.jpg

Body 201 Created 713 ms 754 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {
2   "success": true,
3   "user": {
4     "username": "penggunalima",
5     "nama": "pengguna5",
6     "password": "$2y$12$q.EsY95MMwXyyCZygIxhduD//CuOt7YSgH163JuDjxEUinVJXs/yl",
7     "level_id": "2",
8     "image": "http://localhost/PWL_POS/public/storage/posts/ZavbIWnaLdI6IyPLMb8KfhtspyMwBiK7Itlrc4TN.jpg",
9     "updated_at": "2024-05-15T05:38:46.000000Z",
10    "created_at": "2024-05-15T05:38:46.000000Z",
11    "user_id": 22
12  }
13 }
```

- Perbedaannya adalah saat menggunakan hashName image menjadikan nama yang unik untuk file tersebut, sehingga tidak ada konflik dengan file lain.

TUGAS

- Implementasikan API untuk upload file/gambar pada tabel lainnya yaitu tabel m_barang dan gunakan pada transaksi. Uji coba dengan method GET untuk memanggil data yang sudah di inputkan.

Jawaban :

- 1) Membuat file migrasi untuk m_barang



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```
PS C:\laragon\www\PWL_POS> php artisan make:migration add_image_to_m_barang_table  
[INFO] Migration [C:\laragon\www\PWL_POS\database\Migrations\2024_05_15_061657_add_image_to_m_barang_table.php] created successfully.
```

2) Modifikasi file migrasi m_barang

```
database > migrations > 2024_05_15_061657_add_image_to_m_barang_table.php > ...  
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('m_barang', function (Blueprint $table) {  
15             $table->string('image');  
16         });  
17     }  
18  
19     /**  
20      * Reverse the migrations.  
21      */  
22     public function down(): void  
23     {  
24         Schema::table('m_barang', function (Blueprint $table) {  
25             $table->dropColumn('image');  
26         });  
27     }  
28 };
```

3) Menjalankan migrate

```
PS C:\laragon\www\PWL_POS> php artisan migrate  
[INFO] Running migrations.  
2024_05_15_061657_add_image_to_m_barang_table ..... 100ms DONE
```

4) Modifikasi barangModels



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```
app > Models > BarangModel.php > ...
9  use Illuminate\Database\Eloquent\Casts\Attribute;
10
11  class BarangModel extends Model
12  {
13      use HasFactory;
14      protected $table = 'm_barang';
15      protected $primaryKey = 'barang_id';
16
17      protected $fillable = ['barang_kode', 'barang_nama', 'harga_beli', 'harga_jual', 'kategori_id', 'image'];
18
19      public function kategori(): BelongsTo{
20          return $this->belongsTo(KategoriModel::class, 'kategori_id');
21      }
22      public function stok(): HasOne{
23          return $this->hasOne(StokModel::class, 'barang_id', 'barang_id');
24      }
25
26      protected function image(): Attribute
27      {
28          return Attribute::make(
29              get: fn ($image) => url('/storage/posts' . $image)
30          );
31      }
32  }
```

5) Modifikasi BarangController

```
app > Http > Controllers > Api > BarangController.php > BarangController > update
9  class BarangController extends Controller
16  {
17      public function store(Request $request)
18      {
19          $request->validate([
20              'barang_kode' => 'required|string|min:3|unique:m_barang,barang_kode',
21              'barang_nama' => 'required|string|max:100',
22              'harga_beli' => 'required|integer',
23              'harga_jual' => 'required|integer',
24              'kategori_id' => 'required|integer',
25              'image' => 'required|image|mimes:jpeg,png,jpg,gif,svg|max:2048'
26          ]);
27
28          $barang = BarangModel::create([
29              'barang_kode' => $request->barang_kode,
30              'barang_nama' => $request->barang_nama,
31              'harga_beli' => $request->harga_beli,
32              'harga_jual' => $request->harga_jual,
33              'kategori_id' => $request->kategori_id,
34              'image' => $request->image->hashName()
35          ]);
36          return response()->json($barang, 201);
37      }
38  }
```



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```
app > Http > Controllers > Api > BarangController.php > BarangController > destroy
9  class BarangController extends Controller
43  public function update(Request $request, BarangModel $barang)
44  {
45      $request->validate([
46          'barang_kode' => 'required|string|min:3|unique:m_barang,barang_kode',
47          'barang_nama' => 'required|string|max:100',
48          'harga_beli' => 'required|integer',
49          'harga_jual' => 'required|integer',
50          'kategori_id' => 'required|integer',
51          'image' => 'required|image|mimes:jpeg,png,jpg,gif,svg|max:2048'
52      ]);
53
54      $barang->update([
55          'barang_kode' => $request->barang_kode,
56          'barang_nama' => $request->barang_nama,
57          'harga_beli' => $request->harga_beli,
58          'harga_jual' => $request->harga_jual,
59          'kategori_id' => $request->kategori_id,
60          'image' => $request->image->hashName()
61      ]);
62      return BarangModel::find($barang->barang_id);
63  }
```

6) Menambahkan barang

POST localhost/PWL_POS/public/api/barangs

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary

barang_kode	B17
barang_nama	Bakso
harga_beli	50000
harga_jual	75000
image	meatball.jpg

Status: 201 Created Time: 2.07 s Size: 695 B Save Response

Pretty Raw Preview Visualize JSON

```
1  {
2    "barang_kode": "B17",
3    "barang_nama": "Bakso",
4    "harga_beli": "50000",
5    "harga_jual": "75000",
6    "kategori_id": "4",
7    "image": "http://localhost/PWL_POS/public/storage/postsxpNYqi210HsEVqco2726sHXhNft7BK0LmQ4d7x0.jpg",
8    "updated_at": "2024-05-22T02:01:49.000000Z",
9    "created_at": "2024-05-22T02:01:49.000000Z",
10   "barang_id": 19
11 }
```

7) Menampilkan barang yang telah diinputkan



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GET localhost/PwL_POS/public/api/barangs/19

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary

barang_kode	B17
barang_nama	Bakso
harga_beli	50000
harga_jual	75000
image	meatball.jpg

Body Cookies Headers (11) Test Results Status: 200 OK Time: 765 ms Size: 684 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {"barang_id": 19,
2  "kategori_id": 4,
3  "barang_kode": "B17",
4  "barang_nama": "Bakso",
5  "harga_beli": 50000,
6  "harga_jual": 75000,
7  "created_at": "2024-05-22T02:01:49.000000Z",
8  "updated_at": "2024-05-22T02:01:49.000000Z",
9  "image": "http://localhost/PwL_POS/public/storage/postsxpNYq1210HsEVqco2726sHXwhNft7BK0LmQ4d7x0.jpg"
10 }
11
```

Transaksi

1) TransaksiController

```
app > Http > Controllers > Api > TransaksiController.php > TransaksiController
1 <?php
2
3 namespace App\Http\Controllers\Api;
4
5 use App\Http\Controllers\Controller;
6 use App\Models\TransaksiModel;
7
8 class TransaksiController extends Controller
9 {
10     public function show($id)
11     {
12         $penjualan = TransaksiModel::with('detail.barang')->findOrFail($id);
13
14         $response = [
15             'ID' => $penjualan->penjualan_id,
16             'Pembeli' => $penjualan->pembeli,
17             'Kode Penjualan' => $penjualan->penjualan_kode,
18             'Tanggal Penjualan' => $penjualan->penjualan_tanggal,
19             'Barang yang dibeli' => [],
20             'Total Belanja' => 0,
21         ];
22
23         foreach ($penjualan->detail as $item) {
24             $barang = $item->barang;
25             $subtotal = $item->harga * $item->jumlah;
26             $response['Barang yang dibeli'][] = [
```



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```
27         'Barang' => $barang->barang_nama,  
28         'Harga' => $item->harga,  
29         'Jumlah' => $item->jumlah,  
30         'Subtotal' => $subtotal,  
31         'Image' => url('storage/posts/' . $barang->image->hashName()),  
32     ];  
33     $response['Total Belanja'] += $subtotal;  
34 }  
35  
36 return response()->json($response, 200);  
37 }  
38 }
```

2) Route

```
//TRANSAKSI  
Route::get('transaksi/{id}', [TransaksiController::class, 'show']);
```

3) Menampilkan transaksi

GET localhost/PWL_POS/public/api/transaksi/45 Send

Params Auth Headers (8) Body Pre-req. Tests Settings Cookies

form-data

Key	Value	...	Bulk Edit
-----	-------	-----	-----------

Body 200 OK 805 ms 741 B Save Response

Pretty Raw Preview Visualize JSON

```
1 {  
2   "ID": 45,  
3   "Pembeli": "dea",  
4   "Kode Penjualan": "PJ19",  
5   "Tanggal Penjualan": "2024-05-22 02:15:00",  
6   "Barang yang dibeli": [  
7     {  
8       "Barang": "Bakso",  
9       "Harga": 75000,  
10      "Jumlah": 99,  
11      "Subtotal": 7425000,  
12      "Image": "http://localhost/PWL_POS/public/storage/posts/http://localhost/  
PWL_POS/public/storage/postspNYqi210HsEVqco2726sHXwhNft7BK0LmQ4d7x0.  
jpg"  
13    }  
14  ],  
15   "Total Belanja": 7425000  
16 }
```