

SERVICE ORIENTED ARCHITECTURE

UJIAN AKHIR SEMESTER



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TEKNIK INFORMATIKA – B

FAKULTAS TEKNIK

PRODI TEKNIK INFORMATIKA

UNIVERSITAS LANGLANGBUANA

2022

Bagian 1 (40%) Jawab pertanyaan berikut:

1. Apa bedanya *Google Services* dan *Amazon Web Services* ?

- Availability Zone (Wilayah Ketersediaan)
 - AWS memiliki 66 *availability zone* dengan 12 lainnya yang masih *on-going*.
 - Google Cloud Platform telah tersedia di 20 wilayah di seluruh dunia dengan 3 lainnya masih *on-going*.
- Layanan
 - AWS menawarkan sekitar 200+ layanan, sedangkan Google Cloud, di sisi lain, mengejar Ketinggalan dengan AWS yang menawarkan sekitar 60+ layanan
- Pilihan Stack
 - Pilihan *stack* berkaitan dengan *region server* dan pilihan spesifikasi yang ada. AWS memiliki pilihan *region* terbanyak (14 *region*) di antara penyedia lain. Meski begitu, region terdekat dengan Indonesia adalah Singapura.
 - Sedangkan Google Cloud Platform memiliki pilihan *region* yang merata (10 *region*) dengan *region* terdekat adalah *region Singapore* (SouthEast Asia). Pilihan *stack* pada Google Cloud Platform merupakan yang paling menarik.
- Harga
 - AWS menyediakan percobaan gratis menggunakan salah satu layanan yang mereka sediakan selama satu tahun.
 - Sedangkan Google Cloud Platform menyediakan percobaan gratis dengan menggunakan skema pemberian *credits* sebanyak \$300 yang dapat kamu gunakan untuk layanan apapun pada Google Cloud Platform.

2. Sebutkan apa saja aplikasi yang ada pada *Amazon Web Services* !

Beberapa layanan Amazon Web Service :

Layanan Jaringan :

- Amazon Route 53
- Amazon Virtual Private Cloud (VPC)

Layanan Komputasi :

- Amazon Elastic Compute Cloud (EC2)

- Elastic Load Balancing
- Amazon Elastic Map Reduce

Layanan Aplikasi :

- Amazon CloudSearch
- Amazon Simple Queue Service (SQS)
- Amazon Simple Workflow Service (SWF)
- Amazon Simple Email Service (SES)
- Amazon Simple Notification Service (SNS)

Layanan Penyimpanan :

- AWS Storage Gateway
- Amazon Simple Storage Service (S3)
- Amazon CloudFront
- Amazon Elastic Block Store (EBS)

Layanan Basis Data :

- Amazon SimpleDB
- Amazon Relational Database Service (RDS)
- Amazon ElastiCache
- Amazon DynamoDB

3. Apa itu *framework Laravel*?

Framework adalah kerangka kerja yang digunakan untuk mengembangkan aplikasi bebas desktop atau web sesuai dengan kebutuhan yang akan dibangun. Tidak hanya itu, framework juga harus bisa menyederhanakan proses pembuatan dan menghasilkan performa yang aplikasi web yang lebih maksimal. Jadi Laravel adalah framework berbasis bahasa pemrograman PHP yang bisa digunakan untuk membantu proses pengembangan sebuah website agar lebih maksimal. Dengan menggunakan Laravel, website yang dihasilkan akan lebih dinamis. Sesuai dengan tegline laravelnya “Laravel is a web application framework with expressive, elegant syntax.”.

4. Laravel menggunakan arsitektur *MVC*, yang merupakan turunan dari arsitektur orientasi objek. Apa itu *MVC*?

Model View Controller atau yang dapat disingkat MVC adalah sebuah pola arsitektur dalam membuat sebuah aplikasi dengan cara memisahkan kode menjadi tiga bagian yang terdiri dari:

- Model

Bagian yang bertugas untuk menyiapkan, mengatur, memanipulasi, dan mengorganisasikan data yang ada di database.

- View

Bagian yang bertugas untuk menampilkan informasi dalam bentuk Graphical User Interface (GUI).

- Controller

Bagian yang bertugas untuk menghubungkan serta mengatur model dan view agar dapat saling terhubung.

5. Restful *API* apa yang ada di Laravel ?

Beberapa Restful API yang ada pada Laravel :

- **GET** => Berfungsi untuk Membaca data/resource dari REST Server
- **POST** => Berfungsi untuk membuat sebuah data/resource baru di REST Server
- **PUT** => Berfungsi untuk memperbarui data/resource di REST Server.
- **DELETE** => Berfungsi untuk menghapus data/resource dari REST Server
- **OPTIONS** => berfungsi untuk mendapatkan operasi yang di support pada resource dari REST Server.

6. Microservice apa saja yang ada di Laravel ?

Ada beberapa service pada Laravel yaitu :

- **View** => berfungsi menampilkan tampilan
- **Model** => berfungsi untuk manipulasi dan pengambilan data pada database
- **Controller** => berfungsi mengatur perpindahan data pada model dan view

- **Router** => mengatur controller dan function mana yang dipanggil Ketika mengakses url tertentu
- **Middleware** => mengatur dan melakukan validasi diantara router dan controller
- **Package** => service untuk membuat code modular

7. Apa bedanya instalasi *Laravel* di server lokal (**XAMPP**) dengan di *cloud hosting* ?

Jika pada local kita perlu mempunyai **server local seperti xampp, mamp**, atau yang lainnya, lalu kita juga harus menginstall **composer** untuk menjalankan perintah laravelnya. Sedangkan jika melakukan instalasi di hosting kita diharuskan untuk mempunyai akun **hosting** dan **domain** yang aktif untuk masuk ke **cPanel**, lalu di Cpanel kita membutuhkan sebuah fitur yang bernama **Softaculous Apps Installer**, lalu selebihnya setting settingnya kurang lebih sama.

8. Apa itu Metode Pengembangan *Scrum*?

SCRUM adalah salah satu metode rekayasa perangkat lunak dengan menggunakan prinsip-prinsip pendekatan AGILE, yang bertumpu pada kekuatan kolaborasi tim, incremental product dan proses iterasi untuk mewujudkan hasil akhir.

Scrum sendiri bukan satu-satunya metode yang menggunakan pendekatan AGILE. Mungkin kita juga pernah mendengar metode Extreme Programming (XP) yang juga menggunakan pendekatan AGILE dalam rekayasa perangkat lunak. Masing-masing metode memiliki fokus atau penekanan yang berbeda yang tentu saja dapat dikombinasikan untuk menghasilkan proses yang optimal.

9. Apa itu *GitHub* dalam *software development* (pengembangan perangkat lunak)?

Dikutip dihalaman resminya, aplikasi GitHub adalah perangkat lunak khusus developer yang dibuat untuk membantu pada programmer agar dapat terhubung darimana saja. GitHub adalah situs web dan layanan berbasis cloud yang membantu developer menyimpan dan mengelola kode yang dibuat, serta melacak dan mengontrol perubahan pada kode tersebut.

Dalam Software Development GitHub sangat diandalkan sekali oleh para programmer, karena dengan adanya GitHub penggerjaan Development Software lebih mudah, menghemat waktu dan juga terdata. Penggunaan GitHub yang merupakan Cloud membuat para programmer bisa menyimpannya secara online, dan juga GitHub bisa digunakan secara kolaborasi yang dimana penggerjaan sebuah aplikasi dapat dikerjakan secara bersama, selain itu GitHub pun memudahkan dalam pencatatan repositori, dimana jika ada perubahan akan dicatat.

10. Bagaimana membuat Site Map XML dengan Laravel?

Langkah-langkah untuk membuat sitemap di Laravel :

1. Buat sebuah projek dengan laravel.

```
C:\Windows\system32\cmd.exe
E:\KULIAH\Semester 7\SOA>laravel new cobasitemap
  [REDACTED]
Creating a "laravel/laravel" project at "./cobasitemap"
Info from https://repo.packagist.org: #StandWithUkraine
Installing laravel/laravel (v9.5.1)
- Installing laravel/laravel (v9.5.1): Extracting archive
  Created project in E:\KULIAH\Semester 7\SOA\cobasitemap
> @php -r "file_exists('.env') || copy('.env.example', '.env');"
  Loading composer repositories with package information
  Updating dependencies
  Lock file operations: 107 installs, 0 updates, 0 removals
```

2. Lalu buat database di php myadmin

The screenshot shows the phpMyAdmin interface with the following details:

- Server:** 127.0.0.1
- Databases:** A list of databases including: New, cobasitemap, db, information_schema, kp, myshop, mysql, and parking.
- SQL Tab:** Contains the SQL query: `CREATE DATABASE cobasitemap;` with a success message: **MySQL returned an empty result set (i.e. zero rows). (Query took 0.0076 seconds.)**
- User accounts Tab:** Shows a warning: **Error: #1046 No database selected**.

3. Lalu konfigurasi laravel dan databasenya pada file .env agar terhubung

```
0
1 DB_CONNECTION=mysql
2 DB_HOST=127.0.0.1
3 DB_PORT=3306
4 DB_DATABASE=cobasitemap
5 DB_USERNAME=root
6 DB_PASSWORD=
```

4. Lalu buat sebuah model menggunakan artisan

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS E:\KULIAH\Semester 7\SOA\cobasitemap> php artisan make:model Post -m
[INFO] Model [E:\KULIAH\Semester 7\SOA\cobasitemap\app\Models\Post.php] created successfully.
[INFO] Migration [E:\KULIAH\Semester 7\SOA\cobasitemap\database\migrations\2023_01_23_103332_create_posts_table.php] created successfully.
```

5. Lalu buka file migration yang tadi sudah dibuat lalu buat field database yang kalian inginkan

```
File Edit Selection View Go Run Terminal Help 2023_01_23_103332_create_posts_table.php - cobasitemap - Vis
.env 2023_01_23_103332_create_posts_table.php
database > migrations > 2023_01_23_103332_create_posts_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      * @return void
13      */
14     public function up()
15     {
16         Schema::create('posts', function (Blueprint $table) {
17             $table->id();
18             $table->string('judul');
19             $table->string('genre');
20             $table->string('deskripsi');
21             $table->timestamps();
22         });
23     }
24 }
```

6. Jalankan php artisan migrate untuk meng-inject ke database

```
PS E:\KULIAH\Semester 7\SOA\cobasitemap> php artisan migrate
INFO  Preparing database.
Creating migration table ..... 51ms DONE
INFO  Running migrations.
2014_10_12_000000_create_users_table 37ms DONE
2014_10_12_100000_create_password_resets_table 61ms DONE
2019_08_19_000000_create_failed_jobs_table 41ms DONE
2019_12_14_000001_create_personal_access_tokens_table 55ms DONE
2023_01_23_103332_create_posts_table 29ms DONE
```


#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	<code>id</code>	bigint(20)		UNSIGNED	No	<code>None</code>		AUTO_INCREMENT	Change Drop More
2	<code>judul</code>	varchar(255)	utf8mb4_unicode_ci		No	<code>None</code>			Change Drop More
3	<code>genre</code>	varchar(255)	utf8mb4_unicode_ci		No	<code>None</code>			Change Drop More
4	<code>deskripsi</code>	varchar(255)	utf8mb4_unicode_ci		No	<code>None</code>			Change Drop More
5	<code>created_at</code>	timestamp			Yes	<code>NULL</code>			Change Drop More
6	<code>updated_at</code>	timestamp			Yes	<code>NULL</code>			Change Drop More

7. Buat file factory dengan artisan, lalu ubah scriptnya untuk membuat data dummy di database

```
PS E:\KULIAH\Semester 7\SOA\cobasitemap> php artisan make:factory PostFactory -m Post
INFO  Factory [E:\KULIAH\Semester 7\SOA\cobasitemap\database\factories\PostFactory.php] created successfully.
```



```
/*
 * The name of the factory's corresponding model.
 */
@var string

protected $model = Post::class;
/**
 * Define the model's default state.
 *
 * @return array<string, mixed>
 */
public function definition()
{
    $judul = $this->faker->sentence;
    $genre = str::slug($judul);
    return [
        //
        'judul' => $judul,
        'genre' => $genre,
        'judul' = $this->faker->paragraph(15)
    ];
}
```

8. Lalu jalankan **php artisan tinker** dan masukan perintah
App\Models\Post::factory()->count(10)->create(); untuk mengisi
setiap field pada database dengan data dummy.

```
>
PS E:\KULIAH\Semester 7\SOA\cobasitemap> php artisan tinker
Psy Shell v0.11.10 (PHP 8.1.2 - cli) by Justin Hileman
> App\Models\Post::factory()->count(15)->create();
= Illuminate\Database\Eloquent\Collection {#3738
    all: [
        App\Models\Post {#3742
            judul: "Dolorem et dolorem neque aspernatur.",
            genre: "dolorem-et-dolorem-neque-aspernatur",
            deskripsi: "Exercitationem omnis atque et ab ab quia. Et dignissimos nemo ipsa veniam.",
            updated_at: "2023-01-23 11:16:47",
            created_at: "2023-01-23 11:16:47",
            id: 4,
        },
        App\Models\Post {#3740
            judul: "Voluptatem repellat nihil et voluptatibus voluptatem atque.",
            genre: "voluptatem-repellat-nihil-et-voluptatibus-voluptatem-atque",
            deskripsi: "Qui quibusdam quas sapiente consectetur. Porro numquam sed eveniet nobis incident qui dolorum.",
            updated_at: "2023-01-23 11:16:47",
            created_at: "2023-01-23 11:16:47",
            id: 5,
        },
        App\Models\Post {#3743
            judul: "Minus nam tempora veritatis qui."
        }
    ]
}
```

9. Install package spatie laravel sitemap dengan menjalankan
command **composer require spatie/laravel-sitemap** di terminal.

```
>
PS E:\KULIAH\Semester 7\SOA\cobasitemap> composer require spatie/laravel-sitemap
Info from https://repo.packagist.org: #StandWithUkraine
Using version ^6.2 for spatie/laravel-sitemap
./composer.json has been updated
Running composer update spatie/laravel-sitemap
Loading composer repositories with package information
Updating dependencies
Lock file operations: 13 installs, 0 updates, 0 removals
- Locking intervention/image (2.7.2)
- Locking league/glide (2.2.2)
- Locking masterminds/html5 (2.7.6)
```

10. Jalankan command **php artisan vendor:publish**
provider="Spatie\SiteMap\SiteMapServiceProvider" --
tag=config untuk menyalin file sitemap.php ke dalam folder config.

```
PS E:\KULIAH\Semester 7\SOA\cobasitemap> php artisan vendor:publish --provider="Spatie\SiteMap\SiteMapServiceProvider" --tag=config
INFO No publishable resources for tag [config].
PS E:\KULIAH\Semester 7\SOA\cobasitemap>
```

11. Buka file web.php yang terdapat di folder routes. Kemudian edit script di file tersebut menjadi seperti di bawah ini.

```
routes > 🐾 web.php
1  <?php
2
3  use Illuminate\Support\Facades\Route;
4  use App\Models\Post;
5  use Spatie\Sitemap\Sitemap;
6  use Spatie\Sitemap\Tags\Url;
7
8  Route::get('/', function () {
9      return view('welcome');
10 });
11
12 Route::get('/sitemap', function(){
13     $sitemap = Sitemap::create()
14         ->add(Url::create('/about-us'))
15         ->add(Url::create('/contact_us'));
16
17     $post = Post::all();
18     foreach ($post as $post) {
19         $sitemap->add(Url::create("/post/{$post->slug}"));
20     }
21     $sitemap->writeToFile(public_path('sitemap.xml'));
22 });
```

12. Sekarang jalankan php artisan serve kemudian akses ke url example.test/sitemap atau 127.0.0.1:8000/sitemap maka ketika kita cek di dalam folder public terdapat file baru dengan nama sitemap.xml

```
public > 🐾 sitemap.xml
1  <?xml version="1.0" encoding="UTF-8"?>
2  <urlset xmlns="http://www.sitemaps.org/schemas/sitemap/0.9" xmlns:xhtml="http://www.w3.org/1999/xhtml" xmlns:image=...>
3      <url>
4          <loc>http://127.0.0.1:8000/about-us</loc>
5          <lastmod>2023-01-23T12:16:39+00:00</lastmod>
6          <changefreq>daily</changefreq>
7          <priority>0.8</priority>
8      </url>
9      <url>
10         <loc>http://127.0.0.1:8000/contact_us</loc>
11         <lastmod>2023-01-23T12:16:39+00:00</lastmod>
12         <changefreq>daily</changefreq>
13         <priority>0.8</priority>
14     </url>
15     <url>
16         <loc>http://127.0.0.1:8000/post</loc>
17         <lastmod>2023-01-23T12:16:39+00:00</lastmod>
18         <changefreq>daily</changefreq>
19         <priority>0.8</priority>
20     </url>
21 </urlset>
```

Bagian 2 (60%) Studi Kasus: Pemanfaatan *Framework Laravel Aimeos* untuk Aplikasi *Multi Vendor Marketplace* di Pasar Malam Berkupon.

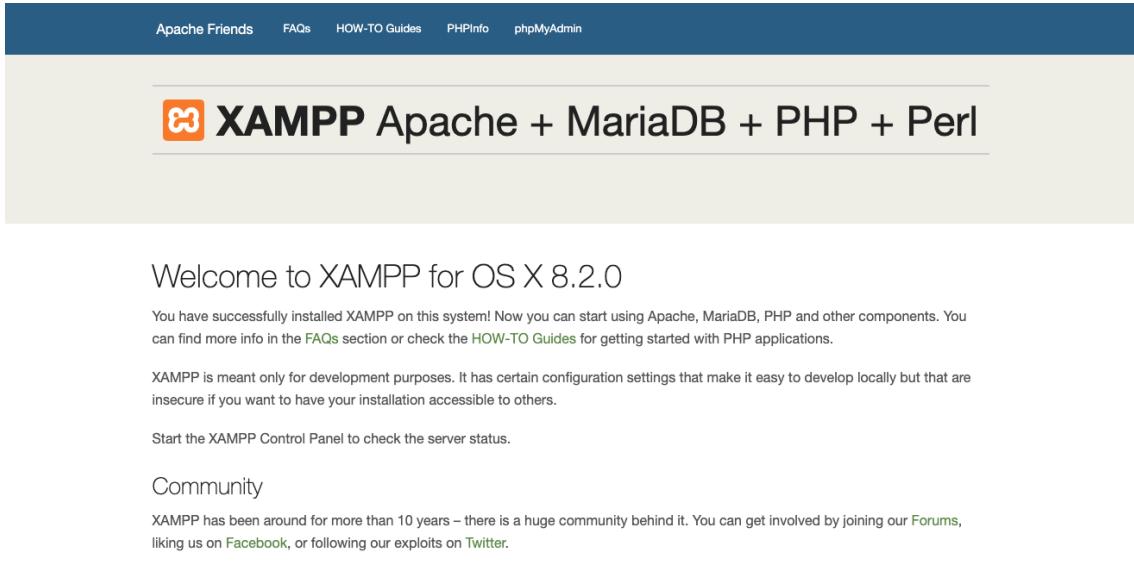
Tim pengembang ingin membuat proyek perangkat lunak dengan Metode Pengembangan *Scrum*. Tim ini akan membuat aplikasi *web* dengan arsitektur *MVC*, dengan *framework Laravel*. Waktu total Sprint pada Day 1 adalah 5 jam. Buatlah semua *screenshot Prototype* dibawah ini. Susunan harus mengikuti urutan nomer Tahapan *Sprint*. Pada *Github*, lakukan *Branch* untuk setiap *Sprint*. Lakukan *Push Commit* untuk setiap *Prototype*.

Sprint 0 : Perencanaan

0 Day 1, Sprint 0 : 1jam, Persiapan

- 0.1. Tim *Leader* menyediakan *XAMPP* di *server lokal*. *Prototype 0.0.1 : Screenshot page test Apache dan phpmysql*. Simpan *Prototype 0.0.1* di *GitHub*.

Screenshot XAMPP



Screenshot phpMyAdmin

The screenshot shows the phpMyAdmin configuration page. On the left, there's a sidebar with a tree view of databases: New, information_schema, mysql, pasarmalam, performance_schema, phpmyadmin, test, and whatsapp. The main area has several tabs at the top: Databases, SQL, Status, User accounts, Export, Import, Settings, Replication, Variables, and More. Below these tabs, there are four main sections: General settings (Server connection collation: utf8mb4_unicode_ci), Database server (Server: Localhost via UNIX socket, Server type: MariaDB, Server connection: SSL is not being used, Server version: 10.4.27-MariaDB - Source distribution, Protocol version: 10, User: root@localhost, Server charset: UTF-8 Unicode (utf8mb4)), Web server (Apache/2.4.54 (Unix) OpenSSL/1.1.1s PHP/8.2.0 mod_perl/2.0.12 Perl/v5.34.1, Database client version: libmysql - mysqld 8.2.0, PHP extension: mysqli curl mbstring), and phpMyAdmin (Version information: 5.2.0, Documentation, Official Homepage, Contribute).

0.2. Tim Leader membentuk 3 kelompok pengembang dan menugaskan untuk instalasi Laravel Aimeos. Daftar Kelompok Pengembang dan tugasnya simpan di Github sebagai Prorotype 0.0.2. Kelompok pengembang ini terdiri dari:

0.2.1. Kelompok 1 (pengembang *backend* dan *Controller*)

Kelompok 1 (Back End dan Controller)	
No	Nama Pengembang
1	Deris Ganesha Pratama
2	Ade Wahyu
3	Azka Fahim Basyar

0.2.2. Kelompok 2 (pengembang *backend* dan *Model*)

Kelompok 2 (Back End dan Model)	
No	Nama Pengembang
1	Chandika Nurdiansyah (Leader)
2	Muhammad Ghiffar Alfarizi

0.2.3. Kelompok 3 (pengembang *frontend* dan *View*)

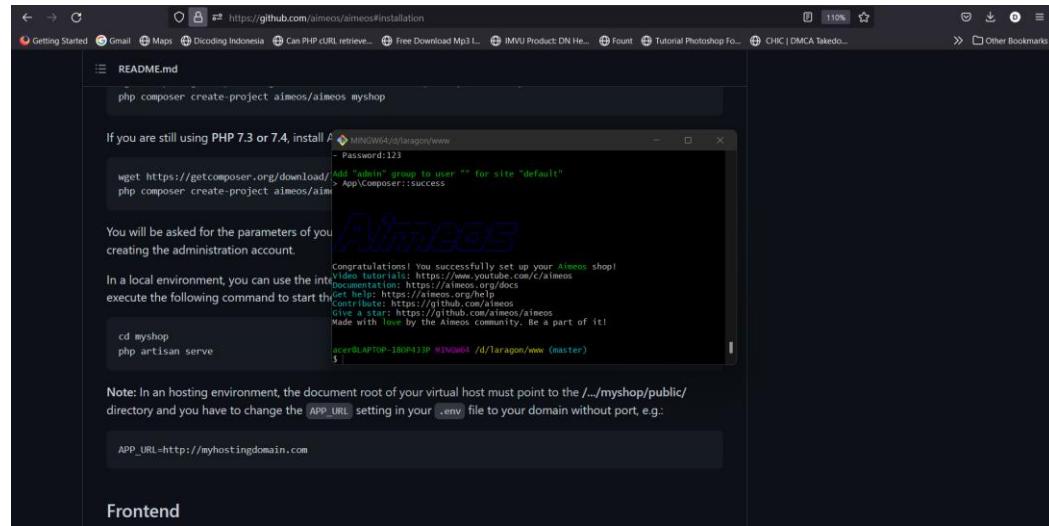
Kelompok 3 (Front End dan View)	
No	Nama Pengembang
1	Muhammad Taofik Setiawan
2	Widy Hendro Saputro
3	Nur Kholis Aprianto

Sprint 1 : Bangun Dasar

Day 1, Sprint 1: 1 jam. Instalasi dan konfigurasi Laravel dan mempelajari script Aimeos secara parallel

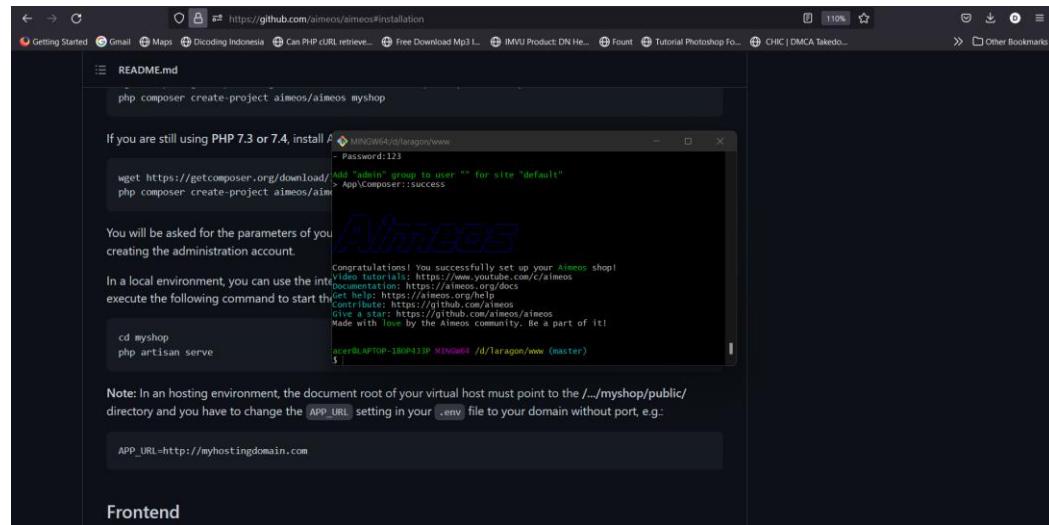
- 1.1. Kelompok 1 melakukan instalasi Laravel. Prototype 1.0.0 Screenshot tampilan Laravel yang berhasil diinstall berupa tampilan halaman awal, halaman login, dashboard. Simpan Prototype 1.0.0 di Github.

- Laravel Aiemos berhasil diinstall



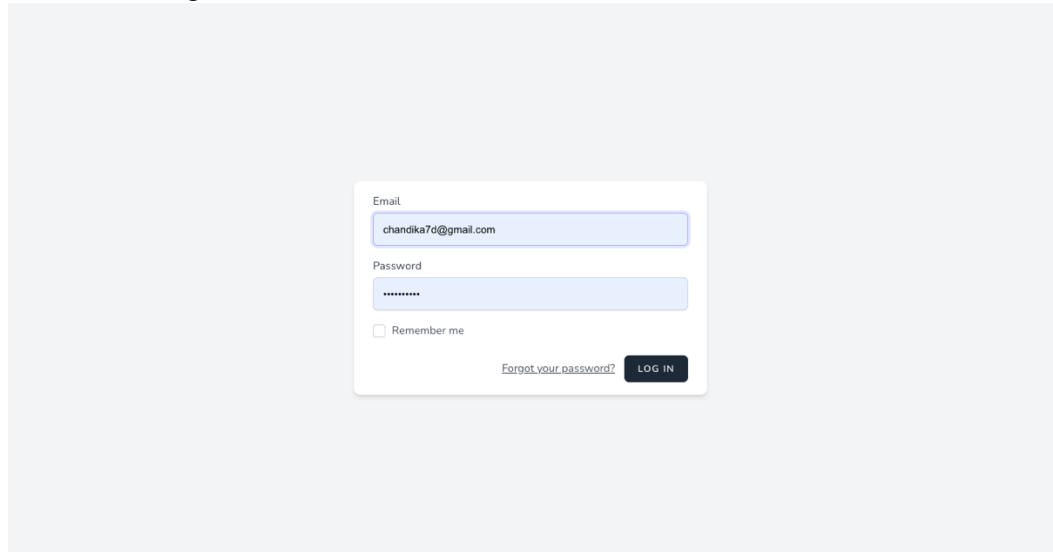
The screenshot shows a browser window with the URL <https://github.com/aimeos/aimeos#installation>. The page displays the README.md file for the Aimeos project. It contains instructions for installing Laravel 7.3 or 7.4, including commands like `php composer create-project aimeos/aimeos myshop` and `cd myshop`, `php artisan serve`. Below the terminal output, there is a note about setting up the document root and changing the `APP_URL` in the `.env` file. At the bottom, there is a section titled "Frontend".

- Halaman Awal

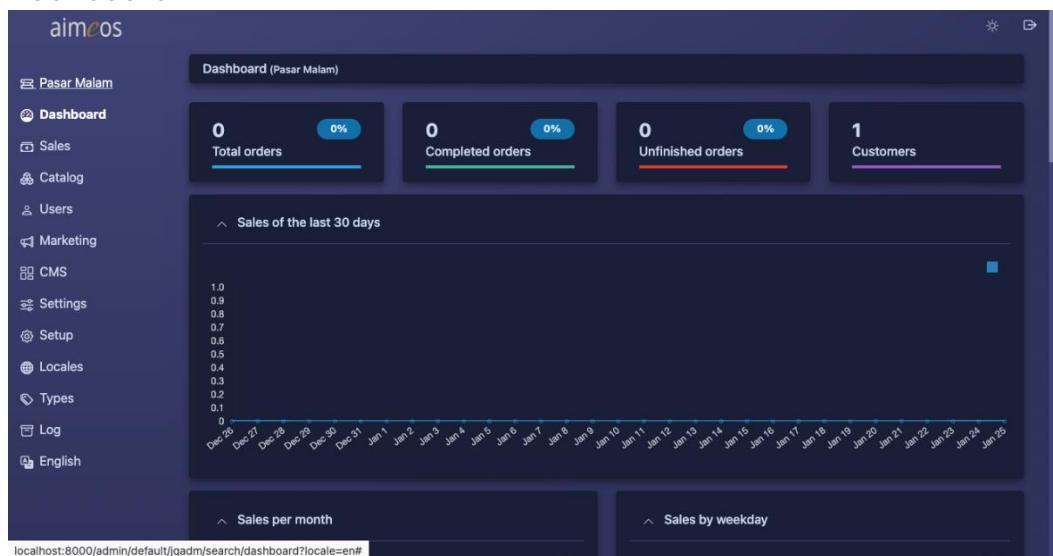


The screenshot shows a browser window with the URL <https://github.com/aimeos/aimeos#installation>. The page displays the README.md file for the Aimeos project. It contains instructions for installing Laravel 7.3 or 7.4, including commands like `php composer create-project aimeos/aimeos myshop` and `cd myshop`, `php artisan serve`. Below the terminal output, there is a note about setting up the document root and changing the `APP_URL` in the `.env` file. At the bottom, there is a section titled "Frontend".

- Halaman Login



- Dashboard



- 1.2. Kelompok 2 mempelajari database dan script di folder Model dari <https://github.com/aimeos/aimeos/blob/master/app/Models/User.php>
- 1.3. Kelompok 3 mempelajari *frontend* dan *script* di folder View dari <https://github.com/aimeos/aimeos/tree/master/resources/views>

Sprint 2 Bangun Badan

Day 2, Sprint 2: 3 jam. Instalasi dan konfigurasi Aimeos secara bersama dan terintegrasi.

2.1. Kelompok 2 menginstal *database* dan *script* di *folder Model* dari <https://github.com/aimeos/aimeos-laravel> di atas *Prototipe 1.1.0*. Setelah berhasil, membuat *screenshot phpmyadmin* disimpan di *Github* sebagai *Prototype 1.1.0*

phpMyAdmin

Recent Favorites

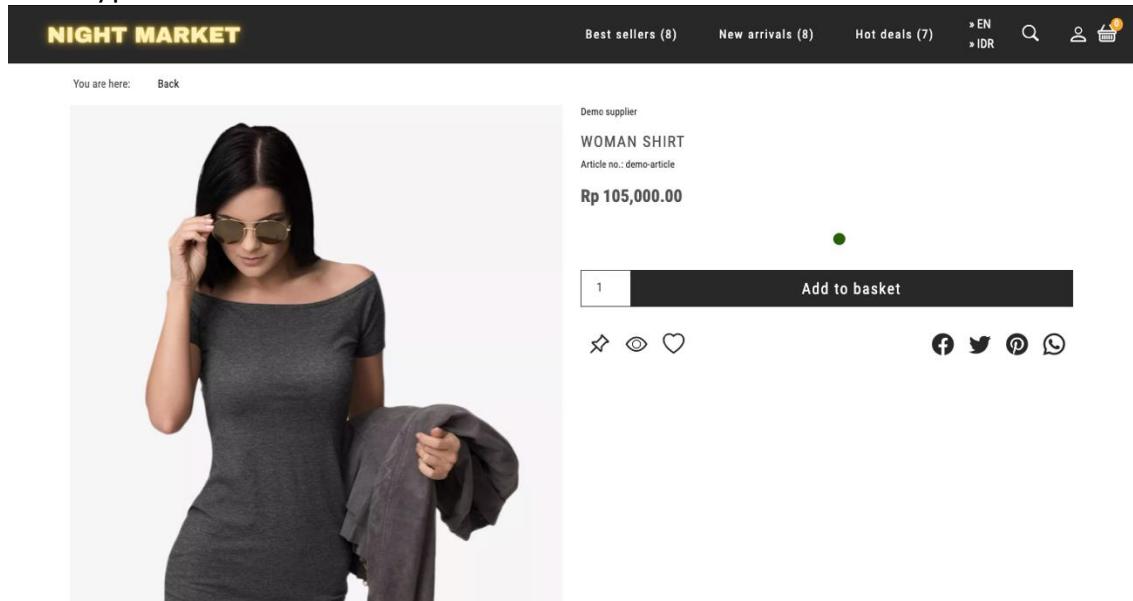
alter db_pasar_malam

Contain the word:

Table	Action	Rows	Type	Collation	Size	Overhead
failed_jobs	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 KIB	-
madmin_cache	Browse Structure Search Insert Empty Drop	12	InnoDB	utf8mb4_unicode_ci	96.0 KIB	-
madmin_cache_tag	Browse Structure Search Insert Empty Drop	32	InnoDB	utf8mb4_unicode_ci	32.0 KIB	-
madmin_job	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	48.0 KIB	-
madmin_log	Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_unicode_ci	96.0 KIB	-
madmin_queue	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	32.0 KIB	-
migrations	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	16.0 KIB	-
mshop_attribute	Browse Structure Search Insert Empty Drop	19	InnoDB	utf8mb4_unicode_ci	128.0 KIB	-
mshop_attribute_list	Browse Structure Search Insert Empty Drop	61	InnoDB	utf8mb4_unicode_ci	64.0 KIB	-
mshop_attribute_list_type	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	88.0 KIB	-
mshop_attribute_property	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	64.0 KIB	-
mshop_attribute_property_type	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	88.0 KIB	-
mshop_attribute_type	Browse Structure Search Insert Empty Drop	12	InnoDB	utf8mb4_unicode_ci	88.0 KIB	-
mshop_catalog	Browse Structure Search Insert Empty Drop	4	InnoDB	utf8mb4_unicode_ci	64.0 KIB	-
mshop_catalog_list	Browse Structure Search Insert Empty Drop	57	InnoDB	utf8mb4_unicode_ci	96.0 KIB	-
mshop_catalog_list_type	Browse Structure Search Insert Empty Drop	5	InnoDB	utf8mb4_unicode_ci	88.0 KIB	-
mshop cms	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	64.0 KIB	-
mshop cms_list	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_unicode_ci	64.0 KIB	-
mshop cms_list_type	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	88.0 KIB	-
mshop coupon	Browse Structure Search Insert Empty Drop	7	InnoDB	utf8mb4_unicode_ci	96.0 KIB	-
mshop coupon_code	Browse Structure Search Insert Empty Drop	3	InnoDB	utf8mb4_unicode_ci	96.0 KIB	-
mshop customer	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	128.0 KIB	-
mshop customer_address	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_unicode_ci	128.0 KIB	-
mshop customer_group	Browse Structure Search Insert Empty Drop	2	InnoDB	utf8mb4_unicode_ci	48.0 KIB	-

Console

2.2. Kelompok 3 menginstal Frontend dan script di folder View dari <https://github.com/aimeos/aimeos-laravel> di atas Prototipe 1.1. Setelah berhasil, membuat screenshot tampilan web disimpan di Github sebagai Prototype 1.2.0

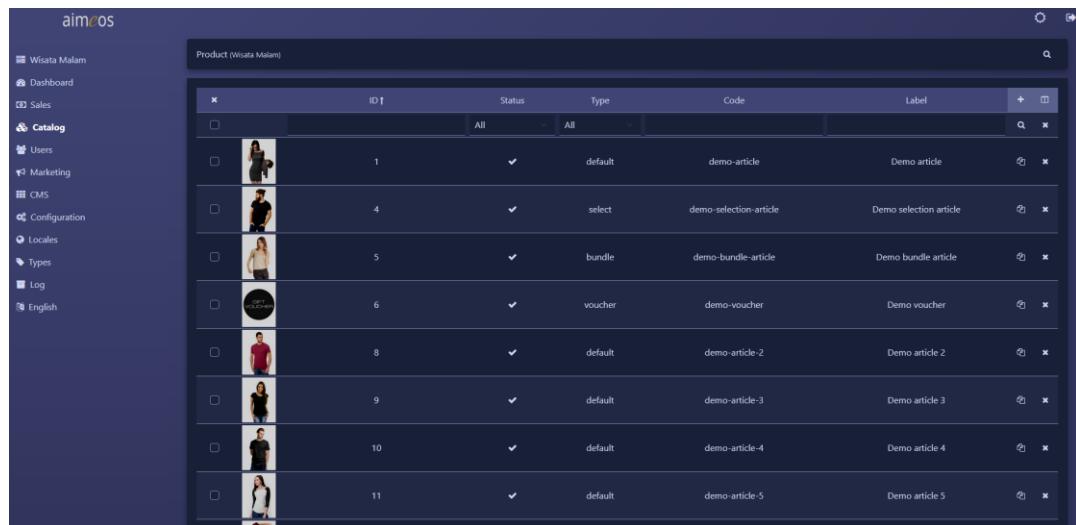


2.3. Kelompok 1 menginstal *script* di *folder Controller* dari <https://github.com/aimeos/aimeos-laravel> di atas *Prototipe 1.1*. Setelah berhasil, membuat *screenshot testing Dashboard* dan isi *query* disimpan di *Github* sebagai *Prototipe 1.3.0*

2.3.1. Query

```
/**  
 * Adds product IDs for filtering  
 *  
 * @param array|string $prodIds Product ID or list of IDs  
 * @return \Aimeos\Controller\Frontend\Product\Iface Product controller for fluent interface  
 * @since 2019.04  
 */  
public function product( $prodIds ) : Iface  
{  
    if( !empty( $prodIds ) && ( $ids = array_unique( $this->validateIds( (array) $prodIds ) ) ) != [ ] ) {  
        $this->addExpression( $this->filter->compare( '==', 'product.id', $ids ) );  
    }  
  
    return $this;  
}
```

2.3.2. Hasil



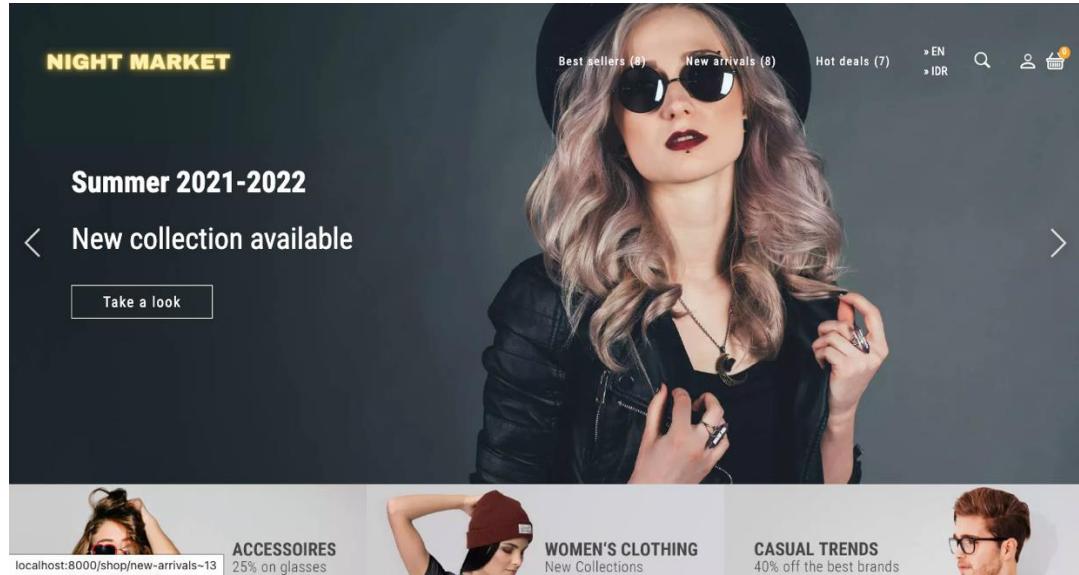
The screenshot shows the Aimeos OS dashboard with a sidebar on the left containing navigation links such as Dashboard, Sales, Catalog, Users, Marketing, CMS, Configuration, Locales, Types, Log, and English. The main area is titled "Product (Wisata Malam)" and displays a table of products. The table has columns for ID, Status, Type, Code, Label, and actions. There are 11 rows of data, each with a small thumbnail image, an ID number, a checked status box, a type (e.g., default, select, bundle, voucher), a code (e.g., demo-article, demo-selection-article, demo-bundle-article, demo-voucher, demo-article-2, demo-article-3, demo-article-4, demo-article-5), and a label (e.g., Demo article, Demo selection article, Demo bundle article, Demo voucher, Demo article 2, Demo article 3, Demo article 4, Demo article 5). Each row also has edit and delete icons.

ID	Status	Type	Code	Label
1	✓	default	demo-article	Demo article
4	✓	select	demo-selection-article	Demo selection article
5	✓	bundle	demo-bundle-article	Demo bundle article
6	✓	voucher	demo-voucher	Demo voucher
8	✓	default	demo-article-2	Demo article 2
9	✓	default	demo-article-3	Demo article 3
10	✓	default	demo-article-4	Demo article 4
11	✓	default	demo-article-5	Demo article 5

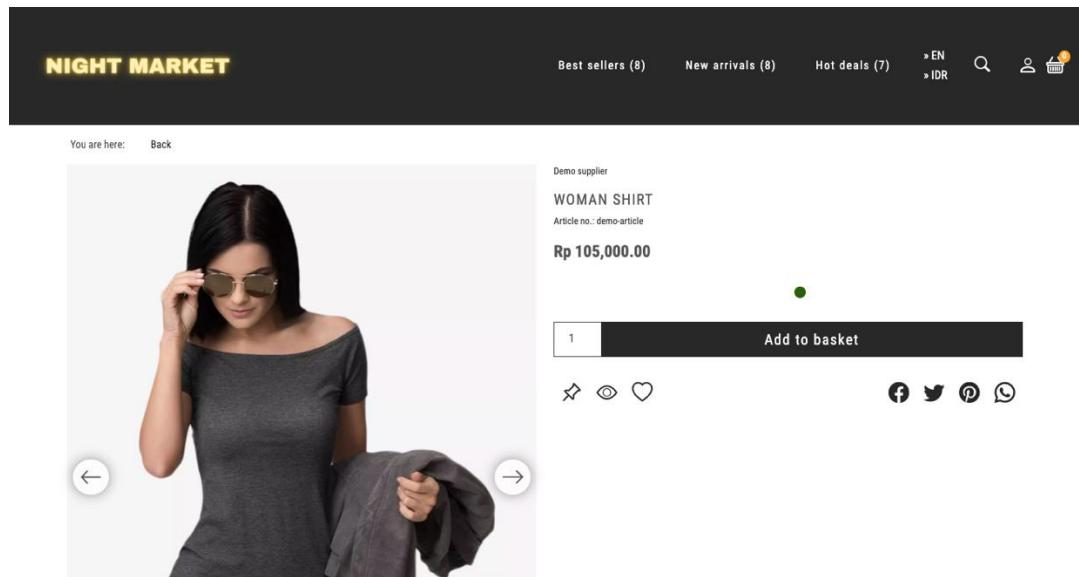
- 2.4. Setelah tahap 2.3. selesai, Tim Leader melakukan evaluasi fitur. Semua fitur dites dan dipastikan berjalan dengan baik. Setelah tes berhasil, maka Prototype ini disetujui dengan nama Prototype Market Place Pasar Malam versi 1.0. disimpan di GitHub, termasuk screenshot Prototype 1.0. dengan semua fiturnya.

Test Order

- Halaman Utama



- Detail Produk



- Checkout : Keranjang

BASKET DETAILS

	Quantity	Price	Sum
Pasar Malam	1 +	Rp 105,000.00	Rp 105,000.00
Woman Shirt			
Article no.: demo-article			
		Sub-total	Rp 105,000.00
		Shipping	Rp 12,000.00
		Total	Rp 117,000.00
		Incl. 11.00% tax	Rp 11,594.59

COUPON CODES **Coupon codes** **Apply**

Back **Checkout**

- Checkout : Form pengiriman

ADDRESS
Fields with an * are mandatory

Billing address

new address like billing address

Delivery address

new address

Salutation

First name* _____

Last name* _____

Company _____

Street* _____

* Adressenfelder

- Checkout : Pilih pengiriman

NIGHT MARKET

DELIVERY

Please choose your delivery method

<input type="radio"/> 	CLICK & COLLECT	Rp 0.00
Local pick-up Pick-up at one of our local stores		
<input checked="" type="radio"/> 	DHL	Rp 0.00
Delivery within three days The parcel is usually delivered within three working days		
<input type="radio"/> 	DHL EXPRESS	Rp 0.00
Delivery on the next day		

- Checkout : Memilih metode pembayaran

NIGHT MARKET

PAYMENT

Please choose your payment method

<input type="radio"/> INVOICE	Pay by invoice within 14 days Please transfer the money within 14 days to BIC: XXX, IBAN: YYY	
<input type="radio"/> 	DIRECT DEBIT Payment via your bank account The money will be collected from your bank account within 1-3 days	
<input checked="" type="radio"/> 	PAYPAL Payment via PayPal Easy and secure payment with your PayPal account	

- Rangkuman Checkout

NIGHT MARKET

1. Basket **2. Address** **3. Delivery** **4. Payment** **5. Summary**

SUMMARY
Please check your order

Billing address	Change	Delivery address	Change
Mr Chandika Nurdiansyah Jl.Pasirulyu Bandung 40254 English chandika7d@gmail.com		like billing address	
Delivery	Change	Payment	Change
DHL		PayPal	
Coupon codes	Change	Your reference	Your comment
		<input type="text"/>	

Please enter a coupon code if you have one.

- Berhasil Order

NIGHT MARKET

CONFIRMATION
Thank you for your order and authorizing the payment.
An e-mail with the order details will be sent to you within the next few minutes.

ORDER STATUS

Order ID	2
Payment status	authorized

ORDER DETAILS

Billing address	Delivery address
Mr Chandika Nurdiansyah Jl.Pasirulyu Bandung 40254 English chandika7d@gmail.com	like billing address
Delivery	Payment
DHL	Invoice

- Order Masuk

	Invoice	Pay status	Ordered at	Last name
<input type="checkbox"/>	2	authorized	2023-01-25 17:45:48	Nurdiansyah
<input type="checkbox"/>	1	---	2023-01-25 17:45:22	Nurdiansyah

Page 1 of 1 | 25 ▾

Bug or suggestion?

Dashboard Admin

PHP setting "opcache.enable" is disabled

0
Total orders
0%

0
Completed orders
0%

0
Unfinished orders
0%

2
Customers
0%

Sales of the last 30 days

1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3

Catalog | Product

- Basic

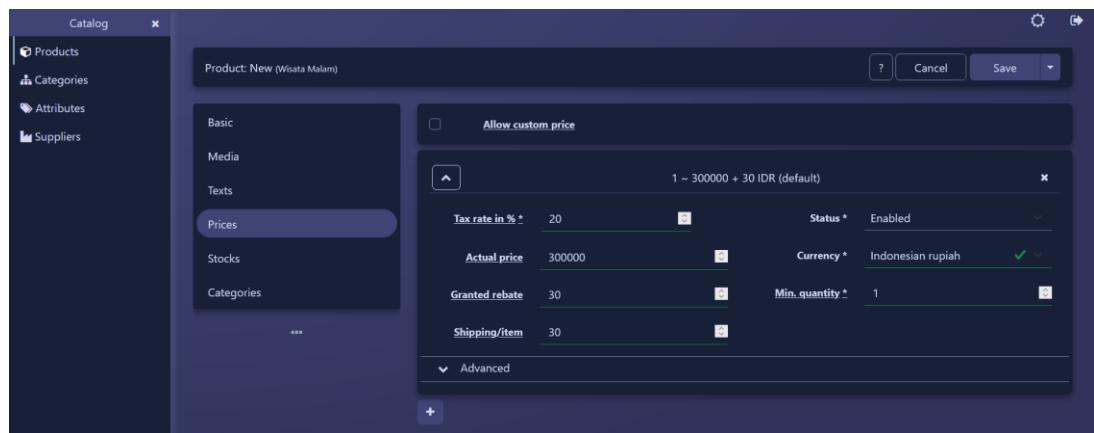
Product: New (Wisata Malam)

Basic	Option	Value
Status *	Enabled	✓
Type *	Article	✓
SKU *	product-test	
Label *	Product Test	

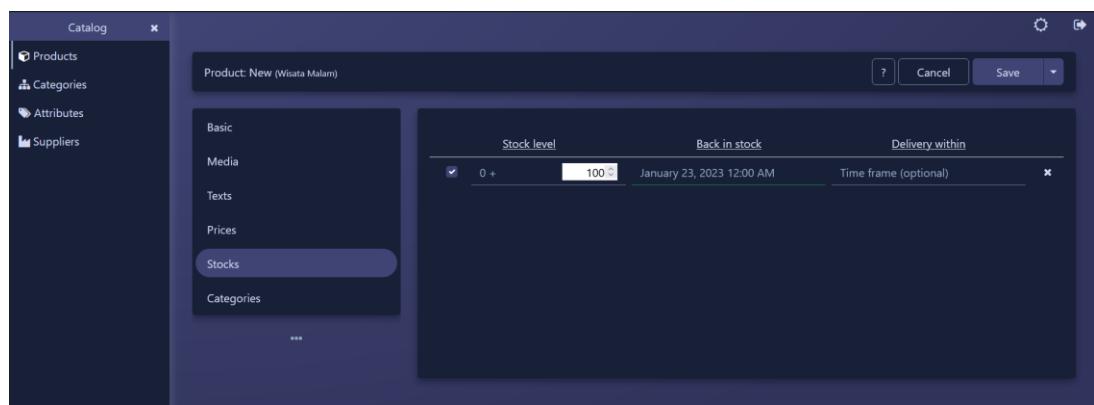
○ Media



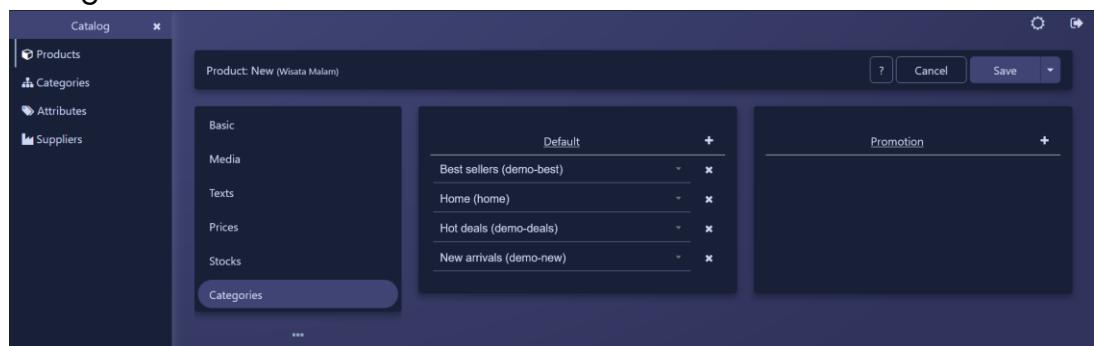
○ Prices



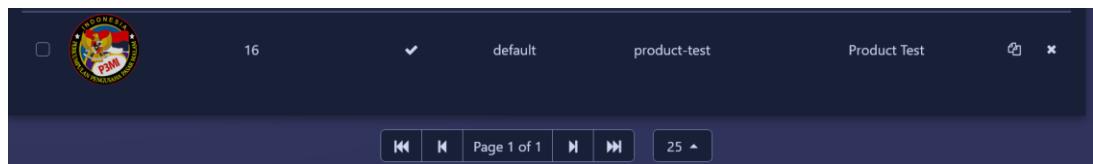
○ Stocks



○ Categories



- Hasil



Catalog | Category

- Basic

- Media

- Text

- Products

The screenshot shows the aimos application interface for managing products. On the left, there is a sidebar with various navigation options: Wisata Malam, Dashboard, Sales, Catalog (selected), Users, Marketing, CMS, Configuration, Locales, Types, Log, and English. The main area has a title "Categories: 6 - Category (Wisata Malam)". Below this, there is a search bar labeled "Find category" and a sidebar menu with "Home" and "Category" sections. The main content area displays a table with columns: Position (sorted by position), Status, Type, and Product. A single row is visible, labeled "1 - Demo article (demo-article)". At the bottom, there are navigation icons and a page number "1 / 1".

Catalog | Attributes

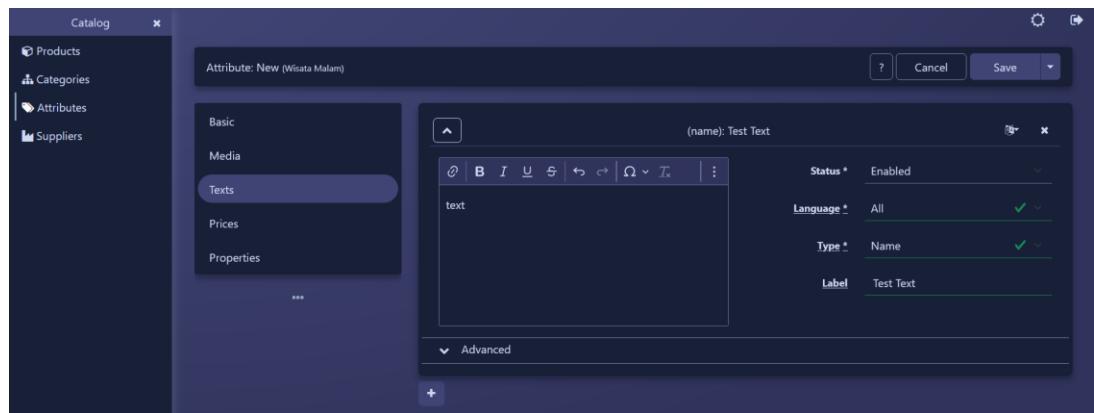
- Basic

The screenshot shows the aimos application interface for creating a new attribute. The sidebar shows "Catalog" selected. The main area has a title "Attribute: New (Wisata Malam)". On the left, there is a sidebar with "Basic", "Media", "Texts", "Prices", and "Properties" sections. The main content area contains form fields: "Domain" set to "Products" (with a green checkmark), "Status" set to "Enabled", "Type" set to "Please select" (with a plus sign), "Code" set to "test-attributes", "Label" set to "Test Atributes", and "Position" set to "0".

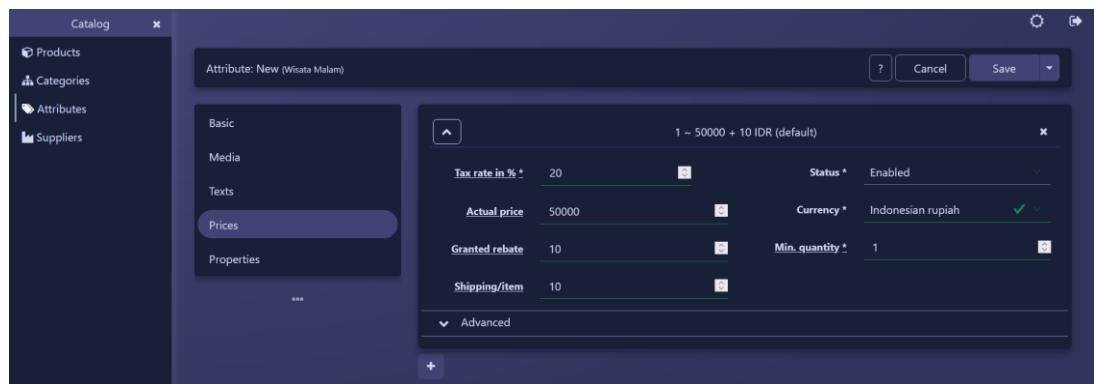
- Media

The screenshot shows the aimos application interface for creating a new attribute with media content. The sidebar shows "Catalog" selected. The main area has a title "Attribute: New (Wisata Malam)". On the left, there is a sidebar with "Basic", "Media" (selected and highlighted in blue), "Texts", "Prices", and "Properties" sections. The main content area shows a preview of a logo image titled "logo-pasar-malam-removebg-preview.png (default)". To the right of the preview, there are form fields: "Status" set to "Enabled", "Type" set to "Standard", "Title" set to "logo-pasar-malam-removebg-pre", and "Language" set to "All".

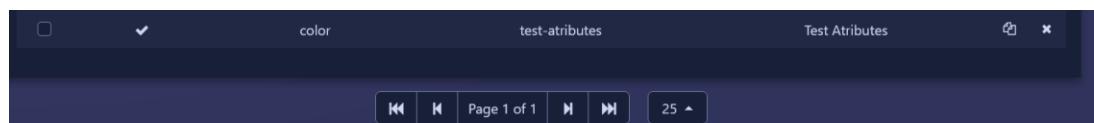
- **Text**



- **Prices**



- **Hasil**



Catalog | Suplier

- o Basic

The screenshot shows the 'Basic' configuration page for a supplier. On the left, a sidebar lists 'Products', 'Categories', 'Attributes', and 'Suppliers'. The main panel title is 'Supplier: New (Wisata Malam)'. It contains sections for 'Status' (Enabled), 'Code' (test-suppliers), and 'Label' (Test Suppliers). A 'Save' button is at the top right.

- o Addresses

The screenshot shows the 'Addresses' configuration page for a supplier. The sidebar and main panel title are identical to the 'Basic' screen. The main panel includes sections for 'Language' (English), 'Street' (Street), 'House number' (08912312311), 'Floor / Apartment' (Apartemen), 'Zip code' (40223), 'City' (Bandung), 'Country' (Indonesia), and 'State' (Country state code (optional)). Below these are sections for 'Communication' (Telephone: 089654123111, Facsimile: 123, E-mail: suppliers@gmail.com, Web site: https://suppliers.com) and 'Company details' (Company: Company Suppliers, VAT ID: 123).

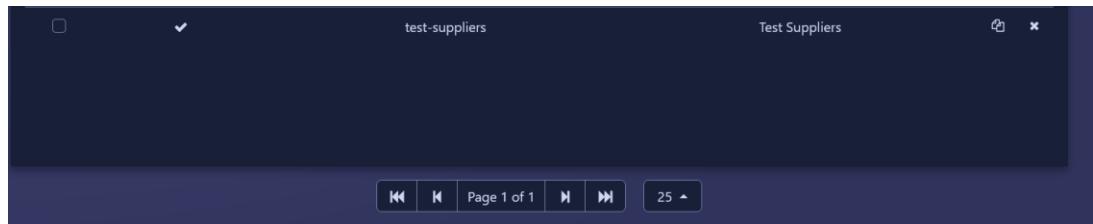
- o Media

The screenshot shows the 'Media' configuration page for a supplier. The sidebar and main panel title are identical to the 'Basic' screen. The main panel features a media preview for 'logo-pasar-malam-removebg-preview.png' (default), showing the Indonesian National Emblem (Garuda Pancasila). Configuration options include 'Status' (Enabled), 'Title' (logo-pasar-malam-removebg-pre), and 'Language' (All).

- o Texts

The screenshot shows the 'Texts' configuration page for a supplier. The sidebar and main panel title are identical to the 'Basic' screen. The main panel displays a rich text editor with the placeholder 'suppliers text'. Configuration options include 'Status' (Enabled), 'Language' (All), 'Type' (Name), and 'Label' (Test Supplier Text).

- Hasil



Configuration

- Basic

Settings: Wisata Malam

Basic

Shop name * Wisata Malam

Shop e-mail * wisatamalam@gmail.com

Shop domain * default

Shop theme Default

Marketing

- List Voucher

The screenshot shows the aimos Marketing module interface. On the left is a sidebar with navigation links: Pasar Malam, Dashboard, Sales, Catalog, Users, Marketing (selected), CMS, Settings, Setup, Locales, Types, Log, and English. The main area has a title "By day (Pasar Malam)". It contains a table with columns: Status, Provider, and Label. A search bar and a delete button are at the top of the table. The table shows one row: Status is "All" with a dropdown arrow; Provider is "PercentRebate"; Label is "Makin Malam Makin Murah". At the bottom are navigation buttons for pages and a page number indicator "25". A "Bug or suggestion?" link is at the bottom right.

- Tambah Voucher Diskon 20%

The screenshot shows the aimos Marketing module interface for creating a new voucher. The sidebar is identical to the previous screenshot. The main area has a title "By day: 5 - Pejuang Gadang (Pasar Malam)". It shows two tabs: "Basic" (selected) and "Codes". Under "Basic", there are fields for Status (Enabled), Label (Pejuang Gadang), Provider (PercentRebate), Start date (2023-01-23 23:00), and End date (2023-01-23 00:00). Below these are modification details: Modified: 2023-01-23 16:57:22, Created: 2023-01-23 16:57:22, and Editor: chandika7d@gmail.com. To the right is a table for "Options" with columns: Option, Value, and a plus sign for adding more. The table contains four rows: percentrebate.pre (2), percentrebate.prc (demo-article), percentrebate.rek (0), and percentrebate.ro (20). Navigation buttons and a "Save" button are at the top right. A "Bug or suggestion?" link is at the bottom right.

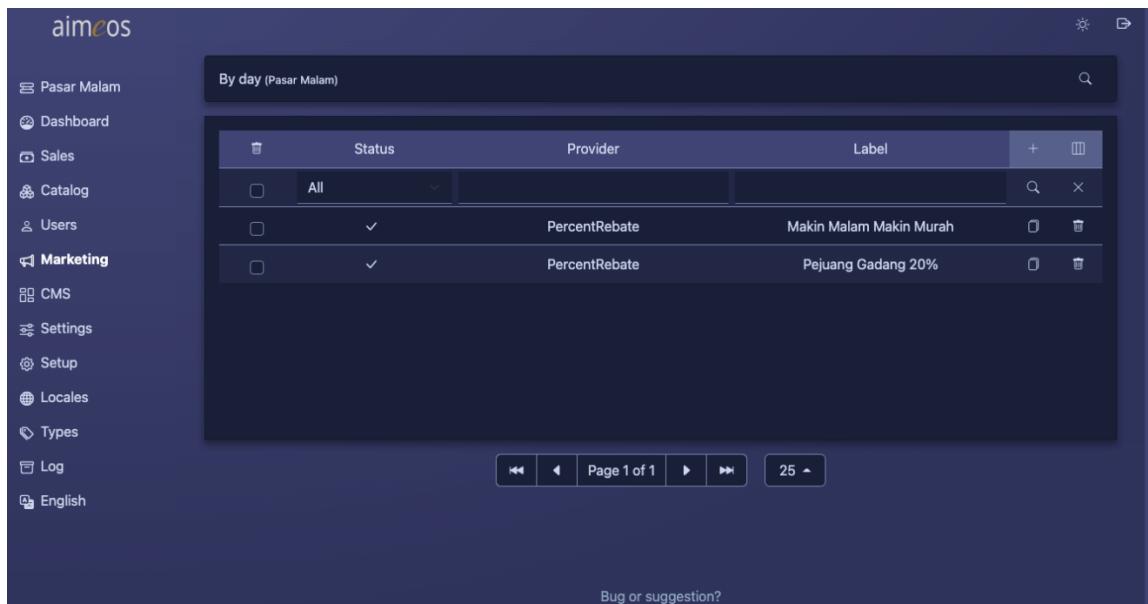
- Berhasil menambahkan voucher

Status	Provider	Label
All	PercentRebate	Makin Malam Makin Murah
✓	PercentRebate	Pejuang Gadang

- Edit Voucher

Option	Value
percentrebate.prc	2
percentrebate.prc	demo-article
percentrebate.rek	0
percentrebate.roe	20

- Berhasil Edit Voucher

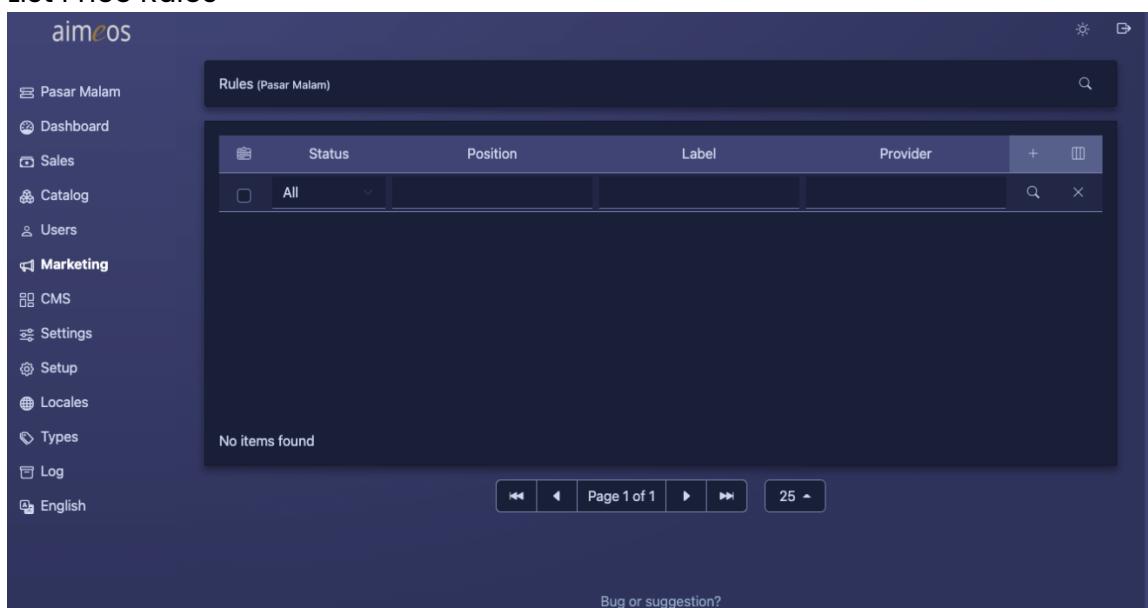


The screenshot shows the aimeos marketing module interface. On the left is a sidebar with navigation links: Pasar Malam, Dashboard, Sales, Catalog, Users, Marketing (selected), CMS, Settings, Setup, Locales, Types, Log, and English. The main content area has a header "By day (Pasar Malam)" with a search icon. Below it is a table with columns: Status, Provider, Label, and actions (+, edit, delete). The table contains two rows:

Status	Provider	Label	Action
All	PercentRebate	Makin Malam Makin Murah	+ Edit Delete
All	PercentRebate	Pejuang Gadang 20%	+ Edit Delete

At the bottom of the table are navigation buttons (back, forward, page 1 of 1, next, last) and a page size selector (25).

- List Price Rules

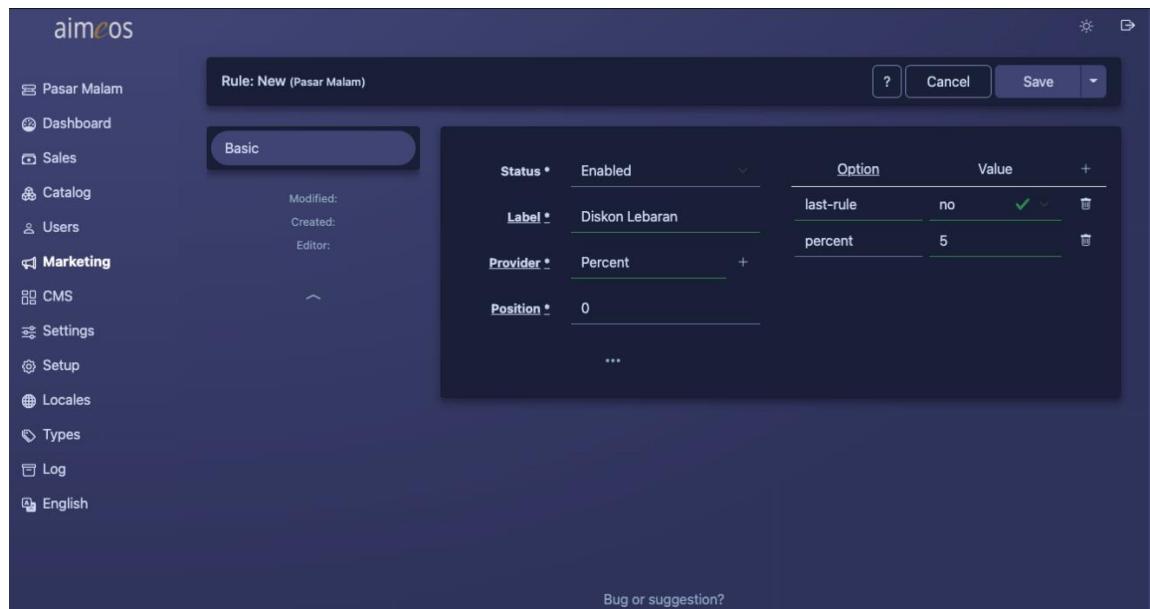


The screenshot shows the aimeos marketing module interface. The sidebar is identical to the previous screenshot. The main content area has a header "Rules (Pasar Malam)" with a search icon. Below it is a table with columns: Status, Position, Label, Provider, and actions (+, edit, delete). The table has a single row entry "All".

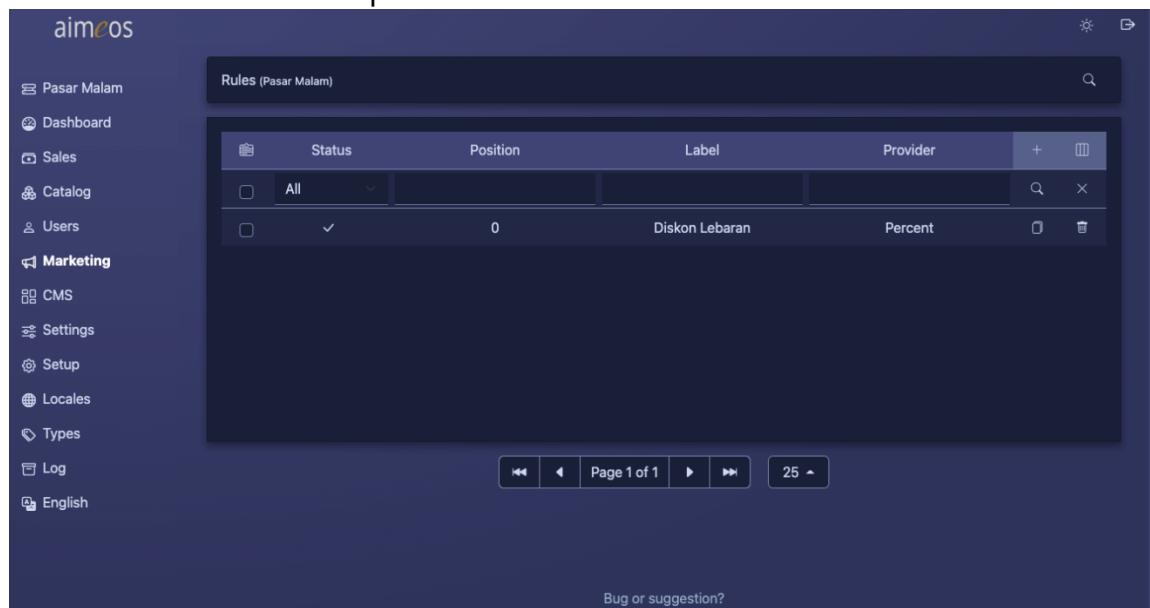
Status	Position	Label	Provider	Action
All				+ Edit Delete

In the center of the table area, it says "No items found". At the bottom are navigation buttons (back, forward, page 1 of 1, next, last) and a page size selector (25).

- Menambahkan Price Rule



- Berhasil menambahkan price rule



- Edit Price Rules

The screenshot shows the aimeos interface with a dark blue header and sidebar. The sidebar on the left includes links for Pasar Malam, Dashboard, Sales, Catalog, Users, Marketing (selected), CMS, Settings, Setup, Locales, Types, Log, and English. The main content area has a title "Rule: 1 - Diskon Lebaran (Pasar Malam)". A "Basic" tab is selected. On the right, there is a form with the following fields:

Status *	Enabled	Option	Value	+
Label *	Diskon Lebaran	last-rule	yes	✓
Provider *	Percent	percent	5	edit icon
Position *	0	^		
Start date	2023-01-24 00:00			
End date	2023-01-31 00:00			

At the bottom right of the form is a "Save" button. Below the form, a message "Bug or suggestion?" is visible.

- Berhasil edit price rule

The screenshot shows the aimeos interface with a dark blue header and sidebar. The sidebar on the left includes links for Pasar Malam, Dashboard, Sales, Catalog, Users, Marketing (selected), CMS, Settings, Setup, Locales, Types, Log, and English. The main content area has a title "Rules (Pasar Malam)". A table displays the following data:

	Status	Position	Label	Provider	Actions
□	All				search, edit, delete
□	✓	0	Diskon Lebaran	Percent	edit, delete

At the bottom right of the table, there are navigation icons for back, forward, and search, along with a page number "Page 1 of 1" and a total count "25". Below the table, a message "Bug or suggestion?" is visible.

- o List Review

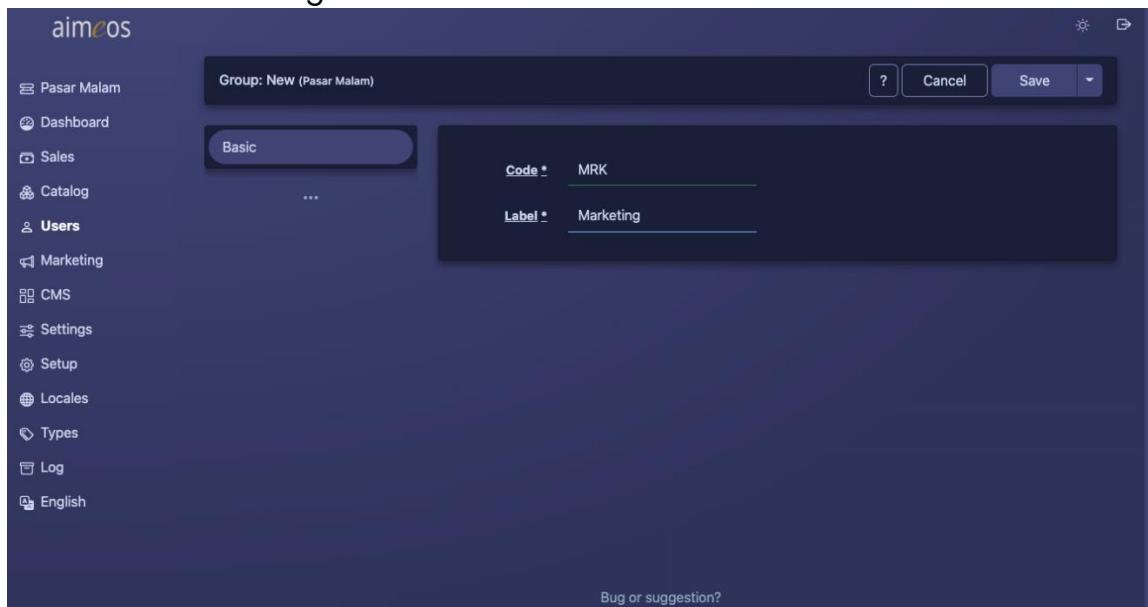
The screenshot shows the 'Review' list page within the 'Pasar Malam' module of the aimeos application. The left sidebar contains navigation links for Pasar Malam, Dashboard, Sales, Catalog, Users, Marketing, CMS, Settings, Setup, Locales, Types, Log, and English. The main content area is titled 'Review (Pasar Malam)' and displays a table with columns: Status, Rating, Comment, Response, and Created. A dropdown menu for filtering by status ('All') is open. The table shows one entry: 'No items found'. At the bottom right of the table is a pagination control showing 'Page 1 of 1' and a page size of '25'. A 'Bug or suggestion?' link is located at the bottom center of the page.

User | Category

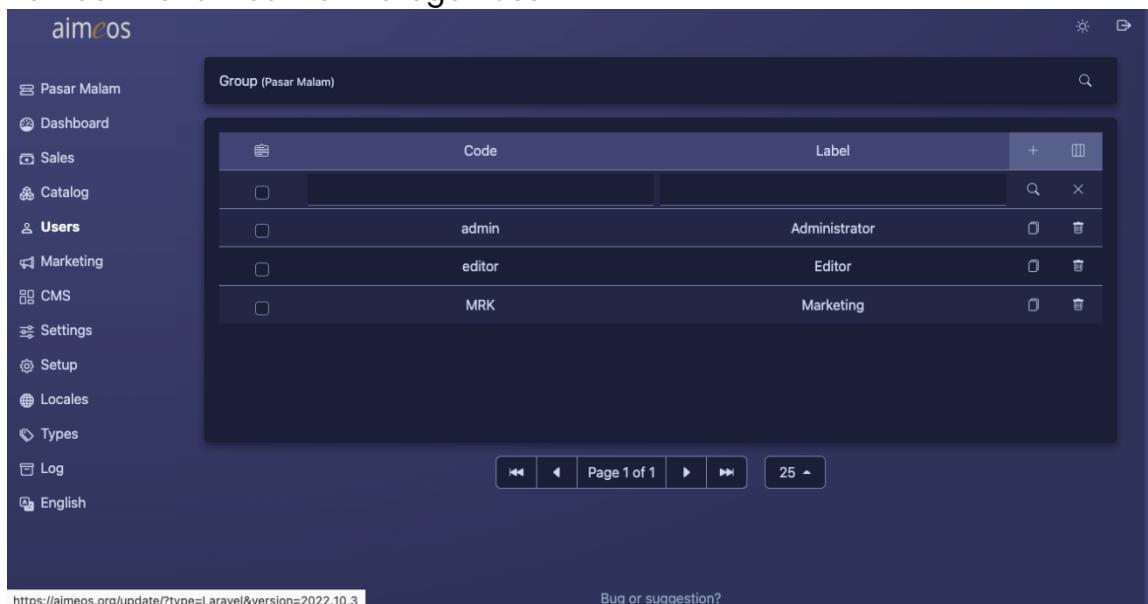
- o List Kategori User

The screenshot shows the 'Group' list page within the 'Pasar Malam' module of the aimeos application. The left sidebar contains navigation links for Pasar Malam, Dashboard, Sales, Catalog, Users, Marketing, CMS, Settings, Setup, Locales, Types, Log, and English. The main content area is titled 'Group (Pasar Malam)' and displays a table with columns: Code and Label. The table lists two entries: 'admin' (Label: 'Administrator') and 'editor' (Label: 'Editor'). Each entry has a delete icon. At the bottom right of the table is a pagination control showing 'Page 1 of 1' and a page size of '25'. A 'Bug or suggestion?' link is located at the bottom center of the page.

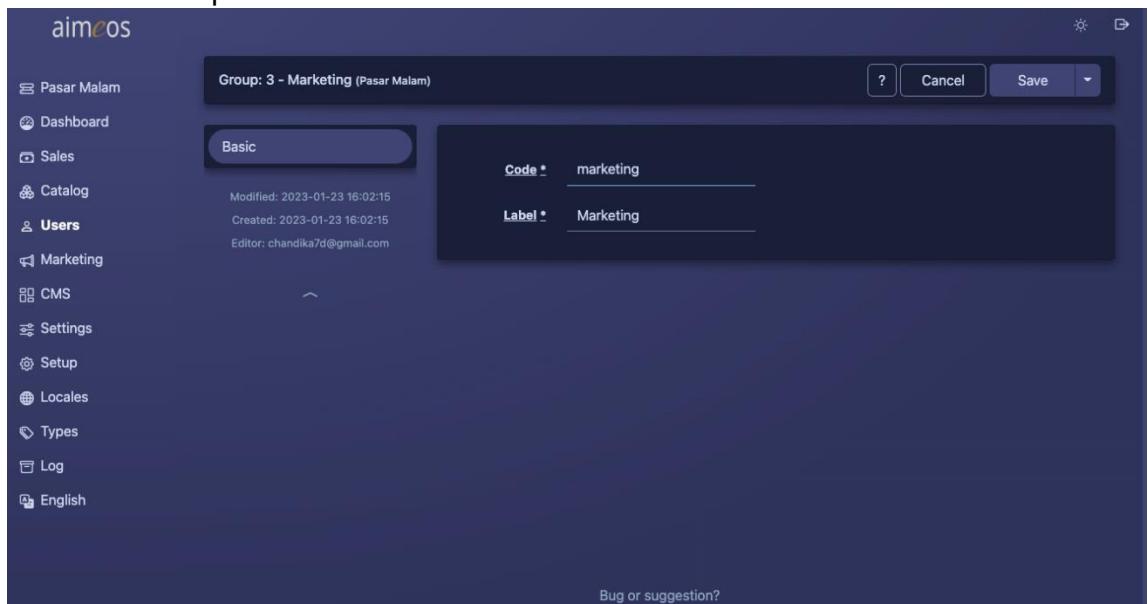
- Menambahkan Kategori User



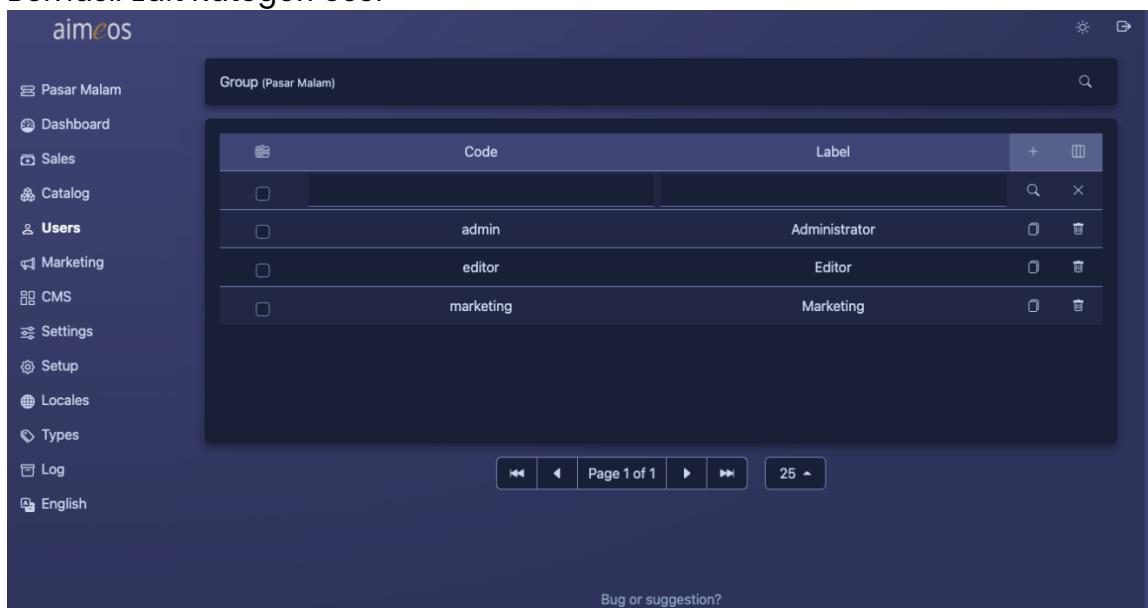
- Berhasil Menambahkan kategori user



- Edit User Group



- Berhasil Edit Kategori User



- List User

The screenshot shows the 'Customer' list page within the aimeos application. The left sidebar contains navigation links for Pasar Malam, Dashboard, Sales, Catalog, Users (selected), Marketing, CMS, Settings, Setup, Locales, Types, Log, and English. The main content area is titled 'Customer (Pasar Malam)' and displays a table with columns: Code, Last name, Postal, and City. Two entries are listed:

Code	Last name	Postal	City
demo@example.com	User	10000	Test city
chandika7d@gmail.com			

Pagination at the bottom shows 'Page 1 of 1' and a total of '25' items.

- Menambahkan User

The screenshot shows the 'Customer: New (Pasar Malam)' form. The left sidebar is identical to the previous screenshot. The main form has tabs for Basic, Addresses, Orders, Products, and Properties. The Basic tab is active and contains fields for Status (Enabled), Account (jesicarekcah@gmail.com), Password (hidden), Verified (2023-01-23), and User groups (Administrator (admin), Editor (editor), Marketing (marketing)). The Personal data and Billing address sections are partially visible below.

- Berhasil Menambahkan User

The screenshot shows the aimos CMS interface with a dark blue theme. On the left is a sidebar with navigation links: Pasar Malam, Dashboard, Sales, Catalog, Users (selected), Marketing, CMS, Settings, Setup, Locales, Types, Log, and English. The main content area is titled "Customer (Pasar Malam)" and contains a table with columns: Code, Last name, Postal, City, and actions (+, edit, delete). Three rows of data are listed:

Code	Last name	Postal	City	
demo@example.com	User	10000	Test city	
chandika7d@gmail.com				
jesicarekcah@gmail.com	Rekcah		Bandung	

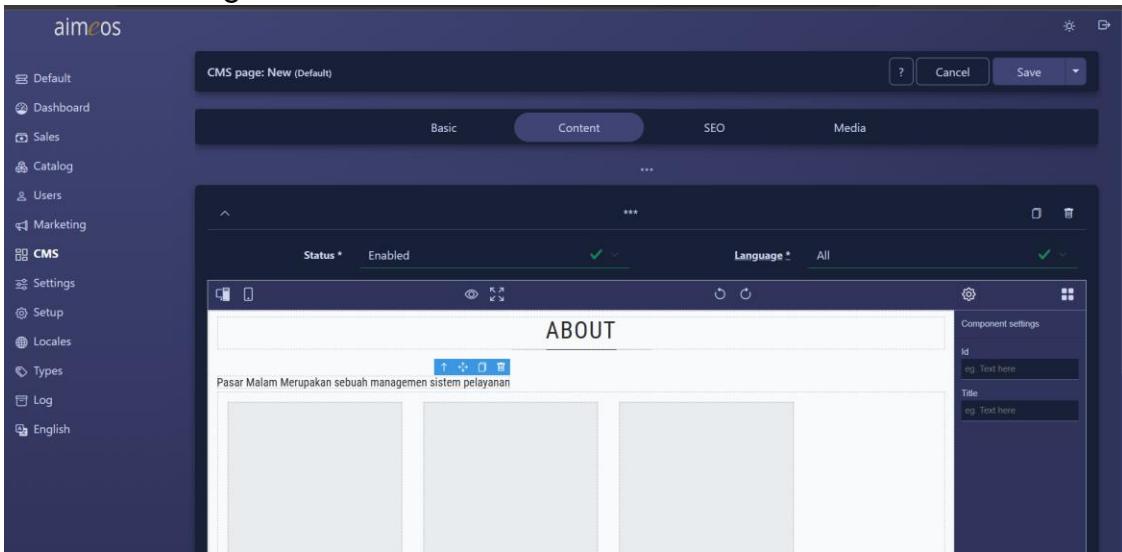
At the bottom of the table are navigation buttons: back, forward, page 1 of 1, and a page size selector (25). A footer message "Bug or suggestion?" is visible.

CMS

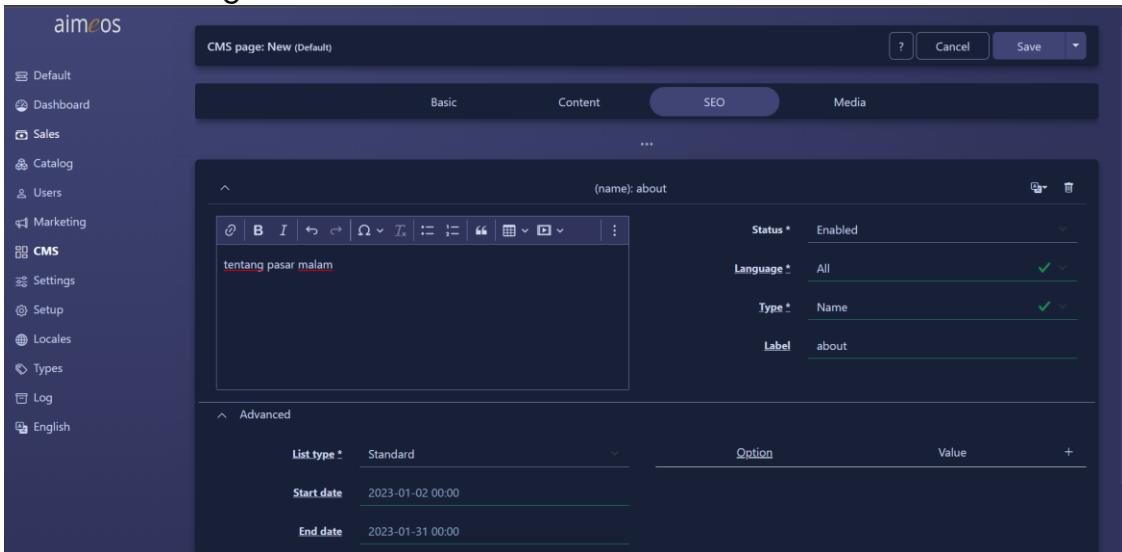
- menambah bagian basic di CMS

The screenshot shows the aimos CMS interface with a dark blue theme. On the left is a sidebar with navigation links: Default, Dashboard, Sales, Catalog, Users, Marketing, CMS (selected), Settings, Setup, Locales, Types, Log, and English. The main content area is titled "CMS page: New (Default)". It has tabs for Basic, Content, SEO, and Media. The Basic tab is active, showing a form with fields: Status * (Enabled), URL * (/about), and Title * (About). There is also a "..." button and a "Cancel" button.

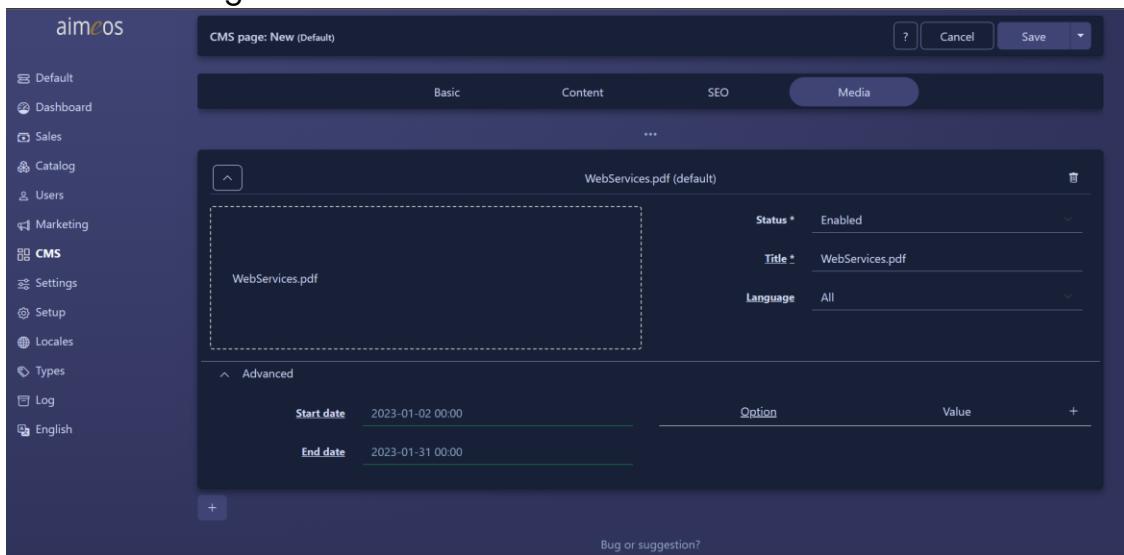
- Menambah bagian Content di CMS



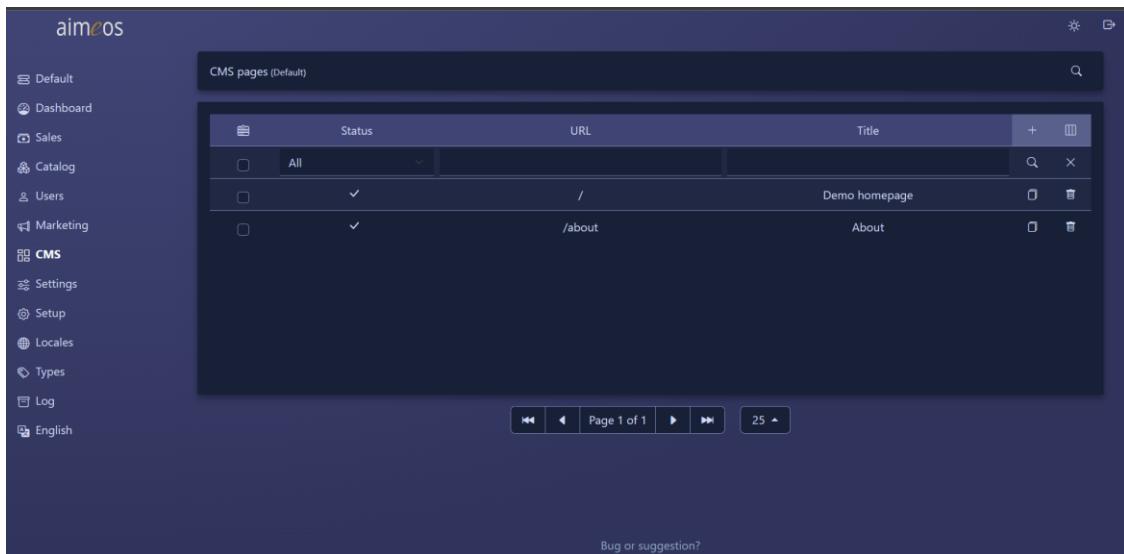
- Menambah bagian SEO di CMS



- Menambah bagian Media di CMS



- Data berhasil ditambahkan



LOCALES

- Menambah bagian locales pada menu locales

The screenshot displays two views of the aimos application's Locales module.

Top View (Modal): A modal window titled "Locale: New (Default)" is open. It contains a "Basic" tab and several configuration fields:

- Status *: Enabled (checkbox checked)
- Language *: en (checkbox checked)
- Currency *: CNY (checkbox checked)
- Position *: 4 (text input field)

Buttons at the top right include "?" (Help), "Cancel", "Save", and a dropdown menu.

Bottom View (List View): A table titled "Locale (Default)" shows a list of locales. The columns are: Status, Language, Currency, Position, and Actions (represented by icons). The data is as follows:

Status	Language	Currency	Position	Action
✓	en	EUR	0	Edit Delete
✓	en	USD	1	Edit Delete
✓	de	EUR	2	Edit Delete
✓	en	CNY	4	Edit Delete

Pagination controls at the bottom indicate "Page 1 of 1".

- Menambah site pada menu locales

The screenshot displays the aimos application interface across three panels.

Top Panel: Shows the "Site: New" configuration screen for a new site named "Basic". The configuration includes:

Status *	Enabled
Code *	default
Label *	user 1
Option	resource/email/from-email user1@gmail.com

Middle Panel: Shows the "Sites" table listing two sites:

	Status	Code	Label	Config
<input type="checkbox"/>	All	default	Default	resource: "email": "from-email": "opiksetiawar theme: "default": "-ai-product-image-ratio":
<input type="checkbox"/>	✓	user1	user1	resource: "email": "from-email": "user1@gmai

Bottom Panel: Shows the "Sites" table with the same two entries, identical to the middle panel.

- Menampilkan languages pada menu locales

	Status	Code	Label	Add	Export
<input type="checkbox"/>	All	vo	Volapük		
<input type="checkbox"/>	X	wa	Walloon		
<input type="checkbox"/>	X	wo	Wolof		
<input type="checkbox"/>	X	xh	Xhosa		
<input type="checkbox"/>	X	yi	Yiddish		
<input type="checkbox"/>	X	yo	Yoruba		
<input type="checkbox"/>	X	za	Zhuang		
<input type="checkbox"/>	X	zu	Zulu		

- Menampilkan Currencies pada menu locales

	Status	Code	Label	Add	Export
<input type="checkbox"/>	All	idr			
<input type="checkbox"/>	X	IDR	Indonesian rupiah		

Bug or suggestion?