**Xendit QR Payment Integration**

**Gambaran Umum**

Implementasi pembayaran QR code menggunakan Xendit API. Project ini menyediakan endpoint untuk generate QR code pembayaran dan menerima callback notifikasi ketika pembayaran selesai.

**Struktur Project**

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Xendit\_QR/

├── src/

│ ├── Controllers/

│ │ └── XenditQRController.php # Handle QR generation & callback

│ ├── Models/

│ │ └── WebhookModel.php # Model webhook processing

│ └── Database/

│ └── Connection.php # Database connection config

├── public/

│ └── index.php # Application entry point

├── vendor/ # Composer dependencies

├── .env # Environment configuration

├── composer.json # Dependency definitions

└── server.php # PHP development server

**Prerequisites**

* PHP 7.4 atau lebih tinggi
* Composer untuk dependency management
* Akun Xendit (Development/Production)
* API Key Xendit
* Webhook Token dari dashboard Xendit
* PHP CURL extension

**Instalasi**

1. **Clone Repository**

bash

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git clone [repository-url]

cd xendit-qr

1. **Install Dependencies**

bash

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composer install

1. **Konfigurasi Environment** Buat file .env pada root folder dengan isi:

env

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XENDIT\_API\_KEY=xnd\_development\_your\_api\_key

XENDIT\_WEBHOOK\_TOKEN=your\_webhook\_token\_from\_dashboard

**Penggunaan API**

**1. Starting Development Server**

bash

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php server.php

Server akan berjalan di http://localhost:8000

**2. Generate QR Code**

**Endpoint:** POST /generate-qr

**Headers:**

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Content-Type: application/json

**Request Body:**

json

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{

"reference\_id": "order-123", // ID unik untuk order

"type": "DYNAMIC", // DYNAMIC atau STATIC

"currency": "IDR", // Mata uang

"amount": 10000 // Jumlah pembayaran

}

**Success Response:**

json

Copy

{

"id": "qr\_xxxxx",

"reference\_id": "order-123",

"type": "DYNAMIC",

"currency": "IDR",

"amount": 10000,

"status": "ACTIVE",

"qr\_string": "xxx...",

"expires\_at": "2024-02-23T14:44:52.619195Z"

}

**CURL Example:**

bash

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curl -X POST http://localhost:8000/generate-qr \

-H "Content-Type: application/json" \

-d '{

"reference\_id": "order-123",

"type": "DYNAMIC",

"currency": "IDR",

"amount": 10000

}'

**3. Callback/Webhook Handler**

**Endpoint:** POST /xendit-callback

**Headers Required:**

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Content-Type: application/json

X-Callback-Token: your\_webhook\_token

**Callback Payload Example:**

json

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{

"event": "qr.payment",

"data": {

"id": "qrpy\_xxx",

"status": "SUCCEEDED",

"amount": 10000,

"reference\_id": "order-123"

}

}

**Success Response:**

json

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{

"success": true,

"message": "Callback processed successfully",

"data": {

// callback data

}

}

**Error Handling**

**Common Error Responses**

1. **Invalid API Key**

json

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{

"error": true,

"message": "Invalid API Key",

"code": 401

}

1. **Invalid Callback Token**

json

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{

"error": true,

"message": "Invalid callback token",

"code": 401

}

1. **Invalid Request Format**

json

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{

"error": true,

"message": "Invalid payload format",

"code": 400

}

**Security Implementation**

1. **API Authentication**
   * Menggunakan Basic Auth dengan API Key Xendit
   * API Key disimpan dalam environment variable
2. **Webhook Security**
   * Validasi X-Callback-Token pada setiap request webhook
   * Token comparison menggunakan timing-safe comparison
   * Token disimpan dalam environment variable

**Development Flow**

1. **Generate QR Code:**
   * Create unique reference\_id
   * Send request ke endpoint /generate-qr
   * Dapatkan qr\_string untuk ditampilkan ke user
2. **Handle Payment:**
   * User scan QR code
   * User melakukan pembayaran
   * Xendit mengirim callback ke endpoint /xendit-callback
   * Sistem memvalidasi callback dan memproses pembayaran

**Debugging Tips**

1. **QR Generation Issues:**
   * Cek API Key validity
   * Pastikan format request benar
   * Cek response error messages
2. **Callback Issues:**
   * Verify webhook token
   * Cek webhook URL di dashboard Xendit
   * Monitor callback logs

**Production Deployment**

1. **Environment Setup:**
   * Gunakan Production API Key
   * Set secure webhook URL dengan HTTPS
   * Configure proper error logging
2. **Security Checklist:**
   * Enable HTTPS
   * Secure environment variables
   * Implement rate limiting
   * Monitor error logs

**Testing**

**Generate QR Test**

bash

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curl -X POST http://localhost:8000/generate-qr \

-H "Content-Type: application/json" \

-d '{

"reference\_id": "test-order-123",

"type": "DYNAMIC",

"currency": "IDR",

"amount": 10000

}'

**Callback Test**

bash

Copy

curl -X POST http://localhost:8000/xendit-callback \

-H "Content-Type: application/json" \

-H "X-Callback-Token: your\_webhook\_token" \

-d '{

"event": "qr.payment",

"data": {

"id": "test\_qr\_123",

"status": "SUCCEEDED",

"amount": 10000,

"reference\_id": "test-order-123"

}

}'

**Troubleshooting Guide**

**Common Issues**

1. **QR Generation Failed**
   * Periksa API Key
   * Validasi format request
   * Cek koneksi internet
2. **Callback Not Received**
   * Verify webhook URL
   * Check webhook token
   * Monitor webhook logs di dashboard Xendit
3. **Token Mismatch**
   * Sync webhook token dengan dashboard
   * Periksa format token di header
   * Clear cache jika diperlukan

**Support & Resources**

* [Xendit API Documentation](https://developers.xendit.co)
* [Xendit QR Code API Reference](https://developers.xendit.co/api-reference/#qr-codes)
* [Xendit Support](https://support.xendit.co)

**Maintenance**

* Update dependencies secara berkala
* Monitor error logs
* Backup environment configuration
* Keep track of API version changes