# Zippy Pay — Full Laravel (Blade) Conversion Guide

This document converts the original React + Node blueprint into a single Laravel app that serves Blade frontend views and a backend API, using MySQL.  
  
It includes Laravel conventions (migrations, Eloquent models, controllers, services) and integrations for payments and VTU.  
  
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## Quick start (what to run)  
composer create-project laravel/laravel zippy-pay  
cd zippy-pay  
cp .env.example .env  
php artisan key:generate  
composer require laravel/ui laravel/sanctum guzzlehttp/guzzle  
php artisan ui bootstrap --auth  
npm install && npm run dev  
php artisan migrate  
php artisan serve  
  
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## Project structure  
app/Http/Controllers (Auth, Wallet, Transaction, Referral)  
app/Models (User, Transaction, Referral)  
database/migrations (users, transactions, referrals)  
routes/web.php  
resources/views (auth, home, wallet, airtime, data, bills, transactions, referral)  
  
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## Database Migrations (MySQL)  
  
### Users table  
id, full\_name, email, phone, password, wallet\_balance, referral\_code, referred\_by, timestamps  
  
### Transactions table  
id, user\_id, type, amount, details (JSON), status, timestamps  
  
### Referrals table  
id, referrer\_id, referred\_id, reward, timestamps  
  
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## Controllers Overview  
  
AuthController: register/login with referral handling.  
WalletController: fund wallet, handle payment webhook.  
TransactionController: buy airtime/data/bills, update wallet.  
ReferralController: show referral info and reward referrer.  
  
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## Services  
  
PaymentService: Paystack/Flutterwave integration.  
VtuService: VTpass integration for airtime/data/bills.  
  
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## Routes  
  
web.php – Blade routes  
api.php – Sanctum-protected API routes for mobile/SPA  
  
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## Blade templates  
  
layouts/app.blade.php – Navbar, layout.  
home.blade.php – Wallet and quick actions.  
wallet.blade.php – Fund wallet form.  
airtime.blade.php – Airtime purchase form.  
data.blade.php – Data purchase form.  
bills.blade.php – Pay bills form.  
transactions/index.blade.php – History.  
referral.blade.php – Referral info.  
  
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## Security and Testing  
  
- Verify payment webhook signatures.  
- Use DB transactions for wallet operations.  
- Lock rows to prevent race conditions.  
- Test with sandbox keys.  
- Use seeders for test users/referrals.  
  
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## Next Steps  
  
1. Implement migrations & models.  
2. Implement PaymentService and webhook.  
3. Implement VTU service.  
4. Add queued job for referral rewards.  
5. Test wallet flow end-to-end.