ParkPing - Real-Time Street Parking Alerts

Overview:
ParkPing is a developer-friendly starter project that helps drivers find and book nearby parking spots in real time.

Key Features:
- Responsive UI (Bootstrap)
- Google Maps integration (live map, current and destination markers)
- SQLite-based user registration/login
- Hourly rate booking logic with mock payment
- Popup notifications and email notification placeholders
- Flask REST API with modular structure

Folder Structure:
ParkPing/
■■■ backend/
■   ■■■ app.py
■■■ frontend/
■   ■■■ templates/
■   ■■■ static/
■■■ README.md

API Endpoints:
- POST /api/auth/register
- POST /api/auth/login
- POST /api/auth/logout
- GET /api/parking/spots
- POST /api/parking/book
- POST /api/payment/complete

Setup Instructions:
1. Install Flask: pip install flask werkzeug
2. Replace YOUR_API_KEY in index.html
3. Run: cd backend && python app.py
4. Open: http://localhost:5000

Future Improvements:
- Real-time alerts via WebSocket
- Stripe payment integration
- Admin dashboard, QR code access
- Automated spot release after expiry
- SMS/email notifications
- Route planning and Google Directions API

Generated from full deep research session summary.