Solution & Quote

CrossPass

AI Entry & Exit Service Platform

H5 frontend + admin console + backend API + WeChat Pay + integrations + lightweight deploy

84
feature items

232
hours

¥29,000
total quote

China entry edition · Japan entry edition · October 2026



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01

Project understanding

Positioning · Scope & hard requirements

Project positioning

AI entry/exit platform for visitors to China and Japan: one admin runs two markets; users consult, find merchants, and order in WeChat

Two entry editions, one admin

- China edition for visitors to China; Japan edition for visitors to Japan
- Dual domain / path entry; data isolated by market
- One language per screen (CN / EN / JP)

AI assistant + Super KB

- Call your AI agent API; no model training
- KB Markdown ingest, split by language, sync Bailian
- Visa assessment, tax-refund & arrival-card guides

Foreigner-friendly merchants & trade

- H5 form, admin entry, Amap POI — three intake sources
- 5-point scores map to gold / silver / bronze badges
- WeChat JSAPI pay, refunds, and reconciliation

Visitor journey

Pick entry edition	WeChat one-tap login	Home / AI consult	Find certified merchants	WeChat Pay checkout	Orders & refunds
CN / EN / JP enter by market	OA OAuth auto account	Visa, tax refund arrival-card guide	Certified only badge & scores	JSAPI pay callback status	Request refund admin review

Scope & hard requirements

Deliver the six work areas in the requirements; feature detail follows the confirmed clickable prototype

Work area	Our delivery
H5 frontend	Four tabs, login/signup, details, cities & guides, checkout & pay, my orders, merchant form; CN / EN / JP
Admin console	Ops dashboard, basic config, content & recs, KB, content review, merchants & scores, distribution pullback, orders
Database & data layer	Schema per merchant library, Super KB, 5-point scores, distribution records; unify three intake sources
External integrations	AI agent API, Bailian KB, AiToEarn listChannelPublishRecords, WeChat OAuth / pay / message stubs
Server deploy	Deploy to Alibaba Cloud HK lightweight 2C2G (aaPanel), dual-domain HTTPS, resource verification
WebView shell app	After H5 stabilizes, package Android / iOS; reuse H5 code (Later phase)

Hard requirements met

- ✓ **Lightweight** — Nginx + MySQL + monolith backend on 2C2G; no Nacos / Dubbo microservices
- ✓ **Multi-end** — UniApp compiles to H5; later same code for App shell
- ✓ **Dual market** — One admin only; two frontend entries; isolated data
- ✓ **AI integration** — Call your API only; no training or inference
- ✓ **Source delivery** — H5, admin, backend, and App shell projects all delivered

Three phases: Phase 1 = test-page acceptance (140 hrs), Phase 2 = ops polish (84 hrs), App shell after H5 stabilizes (8 hrs).

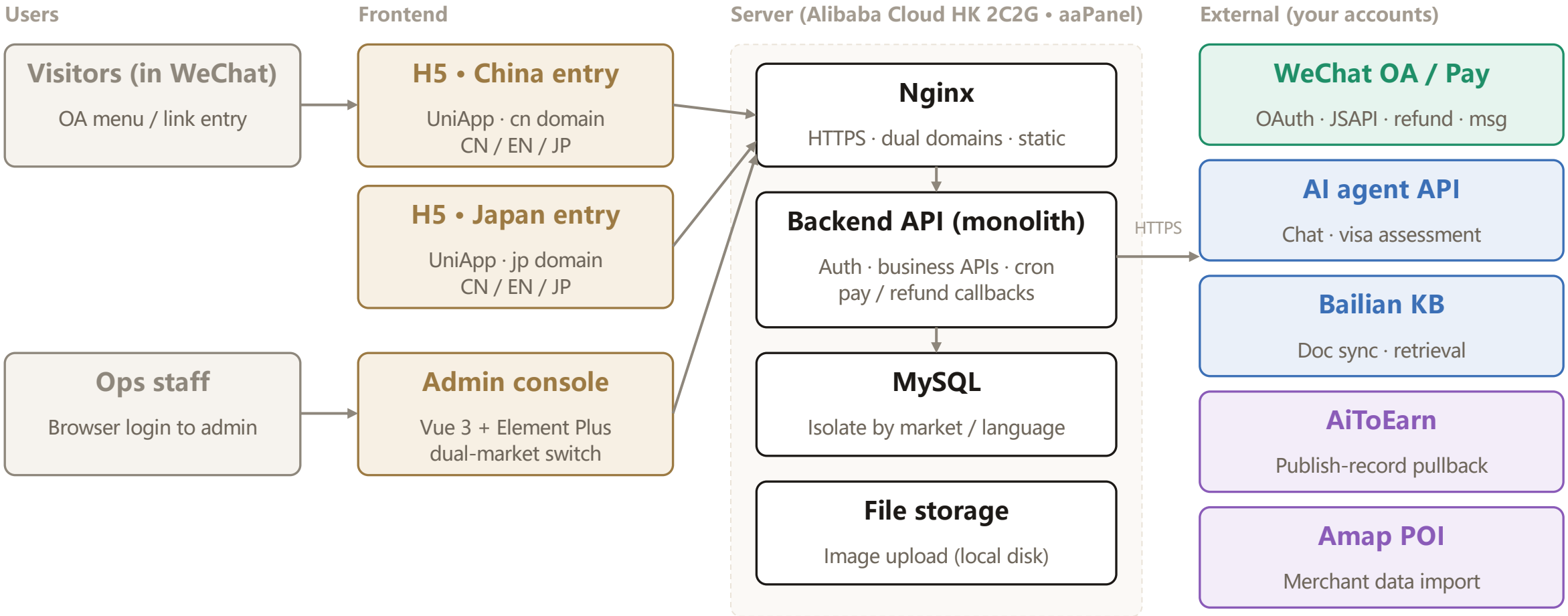
02

Overall solution

Architecture · Tech stack & 2C2G deploy · Dual market & i18n
Data design · Pay & refund · KB & AI · Merchant intake & badges

System architecture

Lightweight monolith: one backend serves two H5 entries and the admin; external capabilities via APIs

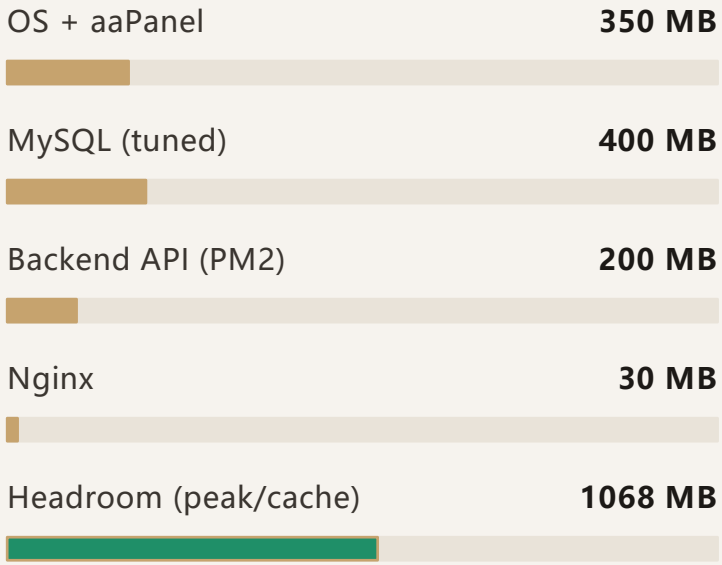


Tech stack & 2C2G lightweight deploy

No registry or message queue; cron jobs run inside the backend process

Layer	Choice	Notes
H5 frontend	UniApp (Vue 3)	Compile to H5; later WebView shell reuses the same code
Admin console	Vue 3 + Element Plus	SPA hosted as Nginx static assets
Backend API	Node.js monolith	PM2; auth, business, callbacks, cron in one process
Database	MySQL	Isolate by market / language; Markdown in content_md
Cron jobs	In-process scheduler	Banner schedule, order timeout, AiToEarn pull, KB expiry
Deploy	aaPanel + Nginx	Dual-domain HTTPS; pay/refund callbacks; log rotation

2G memory estimate

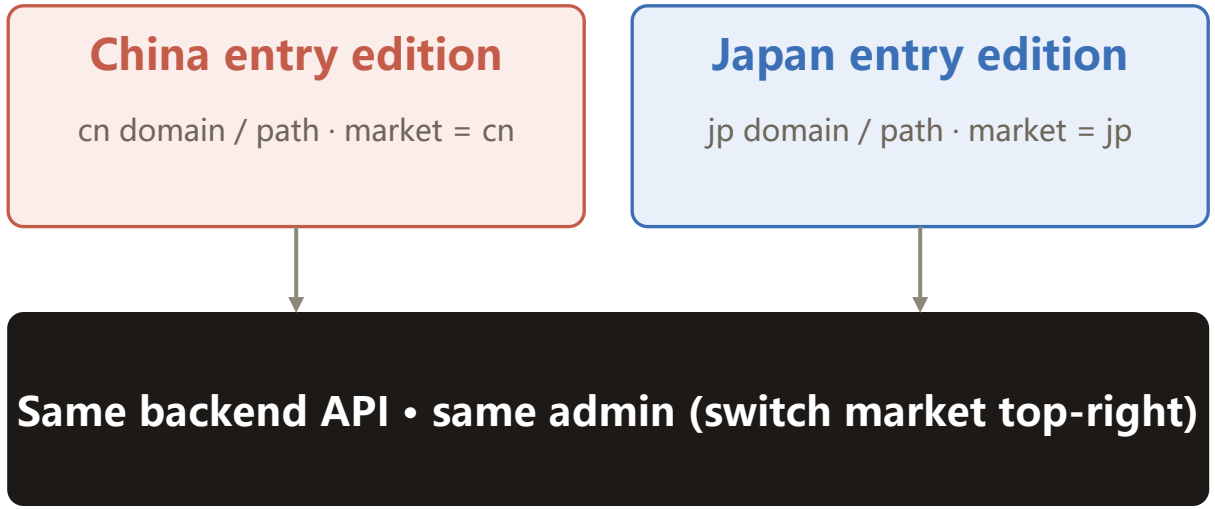


Disable MySQL performance_schema; buffer pool 128–256MB; validate with real load tests after deploy.

Acceptance #6: normal CPU/memory on 2C2G with no OOM. Deploy phase includes '2C2G lightweight tuning' 2 hrs.

Dual market & i18n

One admin, one API set; two frontend entries; data by market; UI monolingual per language



- Cities, merchants, banners, recs, KB, and orders stored per market
- UI uses one language at a time — no bilingual mix on a screen
- Language switch changes UI/content language only, not the market

Data	Market isolation	i18n handling
Cities / merchants	market field	Name, intro, address in 3 languages
Banner	By market	CN / EN / JP copy; show by targeting language
Local recs	Market + city	Trilingual copy; nationality targeting
Knowledge base	By market	Split zh-CN / en records then sync
Orders / refunds	By market	Record UI language at checkout
Basic config	Shared	Language, country, category dictionaries

Core data design

Merchant, Super KB, 5-point score, and distribution tables follow the requirements fields; others support business needs

Merchant librar Spec table

merchants

service_name, service_type, address, price_range, foreigner_friendly_features, contact_info, business_hours, images, business_services, data_source, audit_status

5-point scores Spec table

merchant_scores

score_english / payment / experience / facility / transparency, total_score, bonus_score, final_score, badge_level

Super KB Spec table

knowledge_docs + meta

knowledge_id, category, doc_type, language, keywords_cn / en, source, publish_date, expire_date, status, content_md

Distribution Spec table

publish_records

content_id, platform, publish_url, publish_status, publish_time, sync_source

Users

users

openid, phone, language, nationality pref, city, favorites

Content & ops slots

contents / banners / recs

Post review status, banner trilingual copy, schedule, targeting, exposure/clicks

Orders & refunds

orders / refunds

Order state machine, WeChat pay IDs, callback logs, refunds & refund callbacks

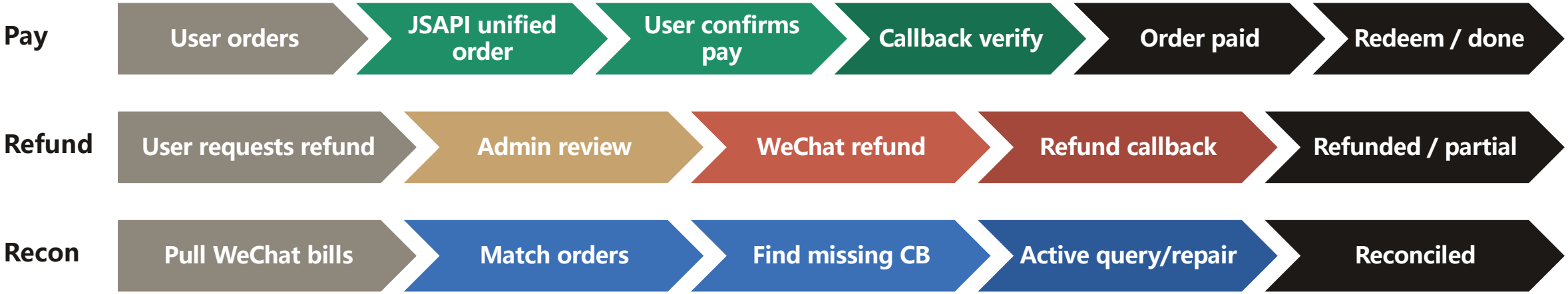
Sync & logs

kb_sync_logs / op_logs

Bailian sync tasks; audit trails for review / refund / sync

Key flows • Pay, refund & reconciliation

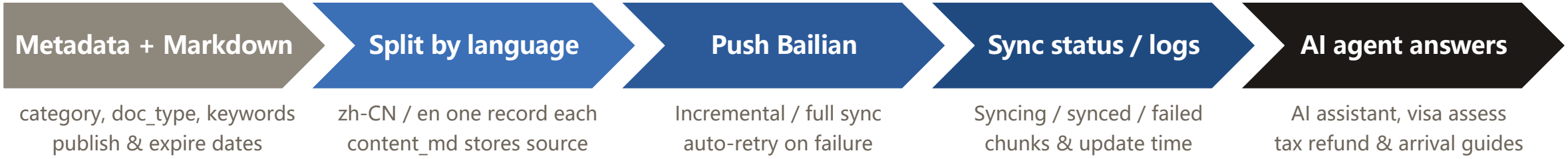
Order status follows WeChat pay/refund callbacks; missing callbacks can be repaired via active query



Order status	When entered	User sees	Admin actions
Pending pay	After order placed	Pending pay	Auto-close on timeout
Paid	Pay callback verified	Paid · can request refund	Redeem, refund
Completed	Merchant / ops redemption	Completed	View
Refunding	Refund approved; WeChat refund started	Refunding	View refund progress
Refunded	Refund callback success (partial OK)	Refunded	View
Closed	Unpaid timeout	Closed	—

Key flows • Knowledge base & AI assistant

Ops edit to Super KB standards; auto-sync Bailian after ingest for AI retrieval answers



Knowledge editing

- Templates: CN-EN tables, Steps, Q&A, Summary
- Side-by-side edit and preview
- Pre-expiry review reminders; offline expired content

Bailian sync

- Sync on save; optional auto incremental sync
- Task log: type, doc count, success/fail, duration
- Show failure reason; one-click retry

Recall test & AI chat

- Ask visitor-like questions; see hit docs & similarity
- AI chat & visa assessment call your agent API only
- Unified timeout/error handling with friendly UI tips

Key flows • Merchant intake & badges

Unify three sources for review; scores drive badges; Discover shows certified merchants only



Final = five-dim avg + click bonus	Badge	Frontend display
4.5 – 5.0	Gold	List corner badge; detail large badge + CERTIFIED
3.5 – 4.4	Silver	Same as above
2.5 – 3.4	Bronze	Same as above
1.5 – 2.4	Basic	Excluded from “certified only”
< 1.5	Unverified	Excluded from “certified only”

Distribution & data pullback

- Backend cron calls AiToEarn listChannelPublishRecords
- Store platform, work URL, publish status & time
- Link to admin content; ops can view & manual pull

03

Features & prototypes

Feature overview · User H5 prototypes · Admin prototypes

Screenshots from the confirmed clickable HTML prototype; each page lists related hour-detail #, hours, and amount

Feature overview

User H5 68 hrs · Backend API 72 hrs · Admin 52 hrs

User H5	Features
Entry & account	Dual-market entry, CN / EN / JP, WeChat OAuth, phone signup
Home	Banner, tax-refund guide, local picks, AI visa assess, guide videos, news feed
AI assistant	Chat, quick questions, session history
Discover	Merchant list, category/city filters, certified only, badges
Detail & trade	Content/merchant detail, checkout, WeChat Pay, pay result
Me	Profile, my orders & refunds, favorites, language & nationality prefs
Guides & onboard	City list, tax-refund map, arrival-card guide, merchant form

Admin console	Features
Ops dashboard	KPIs, trends, todo hub, distributions & rankings, API status
Basic config	Language, country, merchant type, categories, service & feed categories
Content & recs	Banner, local recs, news feed, posts
Knowledge base	Doc list, Markdown editor, Bailian sync, recall test
Content review	Pending, approve / reject, publish status
Merchants & scores	Review, import, five scores, badges
Distribution	AiToEarn publish records
Order management	List, detail, refunds, payment reconciliation

User prototypes • Entry & login



Market entry

Choose service edition

China and Japan entry editions enter separately; domains & data isolated

After entry, switch edition under Me

UI language: CN / EN / JP

Related hours

#3 Dual-market entry	4h · ¥500
#2 i18n framework (CN/EN/JP)	2h · ¥250

Total 6 hrs • ¥750



Login / signup

WeChat one-tap / phone

OA web OAuth gets OpenID; backend auto-creates and binds account

Phone signup/login on the same page

Must accept user agreement before login

Related hours

#4 Login / signup page	1h · ¥125
#5 WeChat OAuth login	2h · ¥250
#30 Signup/login API	1h · ¥125
#31 WeChat OpenID login binding	3h · ¥375

Total 7 hrs • ¥875

User prototypes • Home



Home

Banner, picks, news

Top city switch; content loads by city

Banner by current language; admin can sort and schedule on/off

Local deep-experience picks by city and nationality pref

Related hours

#6 Home frame & banner	3h · ¥375
#9 Local deep-experience picks	2h · ¥250
#12 News feed	1h · ¥125

Total 6 hrs • ¥750



Tax-refund guide

Below home banner

Four steps: invoice, look for marks, customs check, airport refund point

Each step expandable

One-tap into tax-refund map

Related hours

#7 Tax-refund guide	2h · ¥250

Total 2 hrs • ¥250

User prototypes • AI visa assessment



Visa assessment form

On home

Destination, trip purpose, passport type, trip days

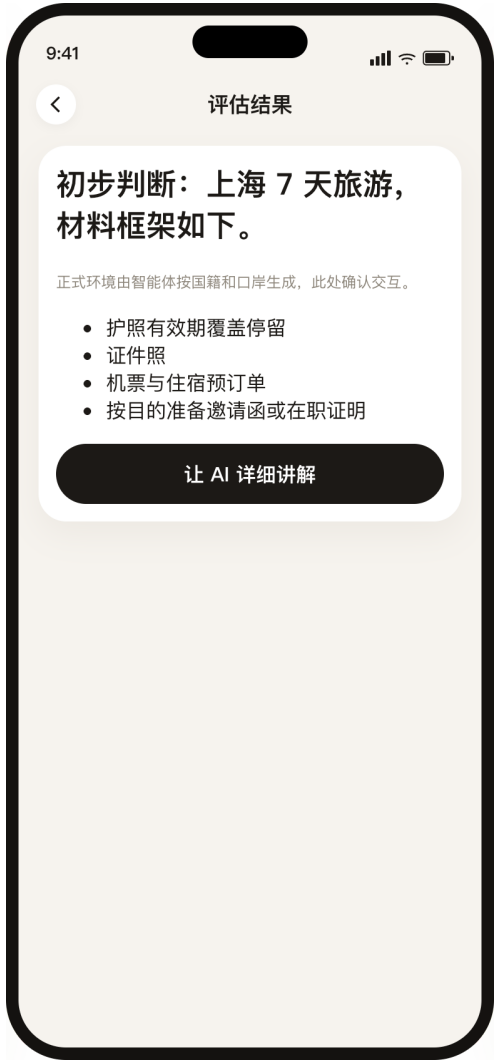
Photo upload passport (upload only; no OCR)

Prompt to complete missing fields

Related hours

#10 AI visa assessment — 4h · ¥500

Total 4 hrs • ¥500



Assessment result

Generated by AI agent

Initial conclusion + document checklist

Can continue in AI assistant

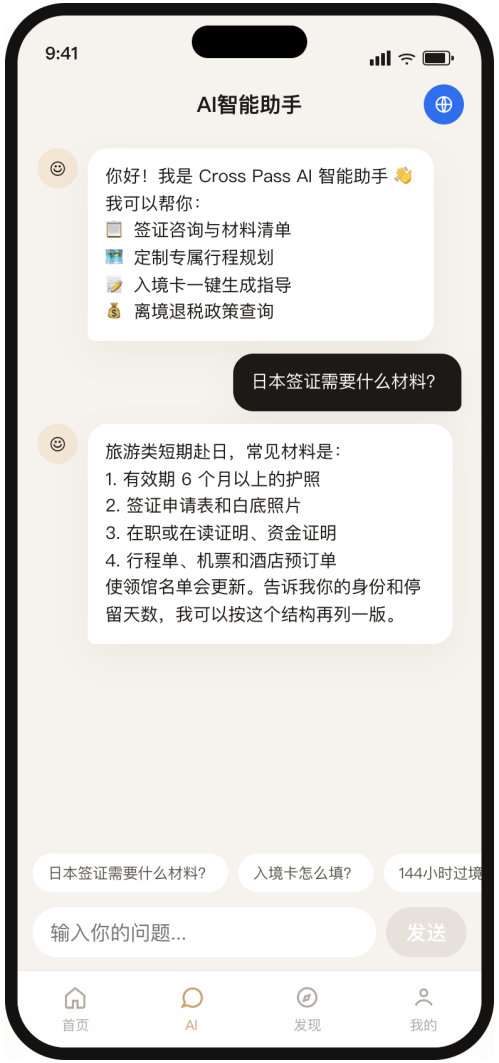
Backend assembles params, calls agent, returns structured result

Related hours

#46 Visa assessment API — 2h · ¥250

Total 2 hrs • ¥250

User prototypes • AI assistant & Discover



AI assistant

Chat page

Welcome, quick questions, input box

Calls your agent API only; friendly timeout/error tips

Session history and copy answer

Related hours

#13 AI chat page	6h · ¥750
#14 Suggested Qs & chat history	2h · ¥250
#45 AI agent API integration	2h · ¥250

Total 10 hrs • ¥1,250



Discover

Foreigner-friendly merchants

Categories: All, Visa, SIM, Hotel, Tickets

Certified-only shows gold / silver / bronze

Corner badge; AI consult or favorite

Related hours

#15 Merchant list	3h · ¥375
#16 Certification badge component	1h · ¥125

Total 4 hrs • ¥500

User prototypes • Merchant detail & checkout



Merchant detail

Large badge + CERTIFIED

Foreigner-friendly tags, address, hours, contact

Five scores, average, bonus, final score

Book from here to checkout

Related hours

#21 Merchant detail page 2h · ¥250

Total 2 hrs • ¥250



Confirm order

Date & quantity

Pick use date and qty; live total

Payment method: WeChat Pay

Confirm invokes JSAPI pay

Related hours

#24 Checkout & WeChat JSAPI pay 4h · ¥500

Total 4 hrs • ¥500

User prototypes • WeChat Pay



Invoke payment

WeChat JSAPI

- Backend unified order + sign; frontend invokes pay
- Prototype shows simulated pay sheet
- Merchant ID & API keys provided by you

Related hours

#50 WeChat JSAPI payment	4h · ¥500
Total 4 hrs • ¥500	



Pay result

Callback is source of truth

- After callback verify, order becomes Paid
- View order or return home
- Template message API reserved

Related hours

#49 Order API & state machine	3h · ¥375
Total 3 hrs • ¥375	

User prototypes • Me & orders



Me

Profile center

Orders, favorites, language, city, nationality pref

Service guides, merchant onboarding entry

Switch entry edition

Related hours

#17 Profile center	2h · ¥250
#19 My favorites	1h · ¥125
Total 3 hrs • ¥375	



My orders

Status & refunds

Pending, Paid, Completed, Refunding, Refunded, Closed

Paid orders can request refund

Refund requests go to admin Refunds for review

Related hours

#18 My orders	4h · ¥500
Total 4 hrs • ¥500	

User prototypes • Tax refund & arrival



Tax-refund map

Points in current city

Policy steps and eligibility

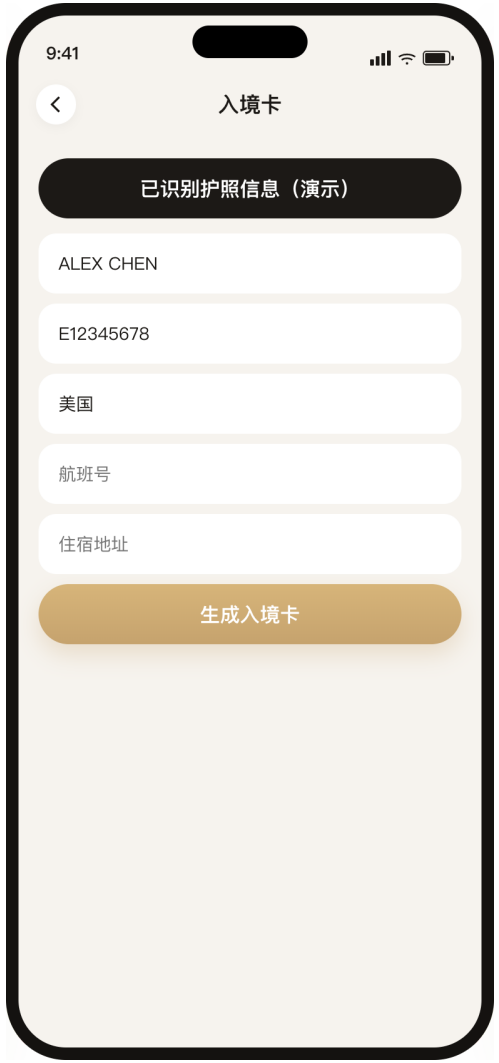
Refund-point list, hours, map navigation

Refund-point data maintained in admin

Related hours

#8 Tax-refund map	3h · ¥375
#47 Tax-refund & arrival-guide data	2h · ¥250

Total 5 hrs • ¥625



Arrival-card guide

Step-by-step fill help

Passport, flight, lodging explained step by step

China edition: arrival card; Japan: Visit Japan Web

Passport OCR in prototype is demo only — out of scope

Related hours

#11 Arrival-card fill guide	2h · ¥250

Total 2 hrs • ¥250

User prototypes • Merchant onboard & cities



Merchant onboard

Public form

Fields follow merchant standard library

CN / EN / JP switch; image upload

Submit as pending; source h5_form

Related hours

#25 Public merchant onboarding form	6h · ¥750
#36 Merchant onboarding form API	1h · ¥125

Total 7 hrs • ¥875



City list

Load content by city

After pick: home picks, Discover, refund points load by city

City list maintained in admin basic config

Related hours

#22 City list	1h · ¥125

Total 1 hrs • ¥125

Admin prototypes • Ops dashboard



Ops dashboard

KPIs, todos & system status at a glance

Today GMV, orders, visitors, AI chats with MoM and 7-day trends

7-day GMV trend; todo hub aggregates review, refund, recon, sync errors

Visitor nationality, merchant cert mix, top sellers, AI hot & miss questions

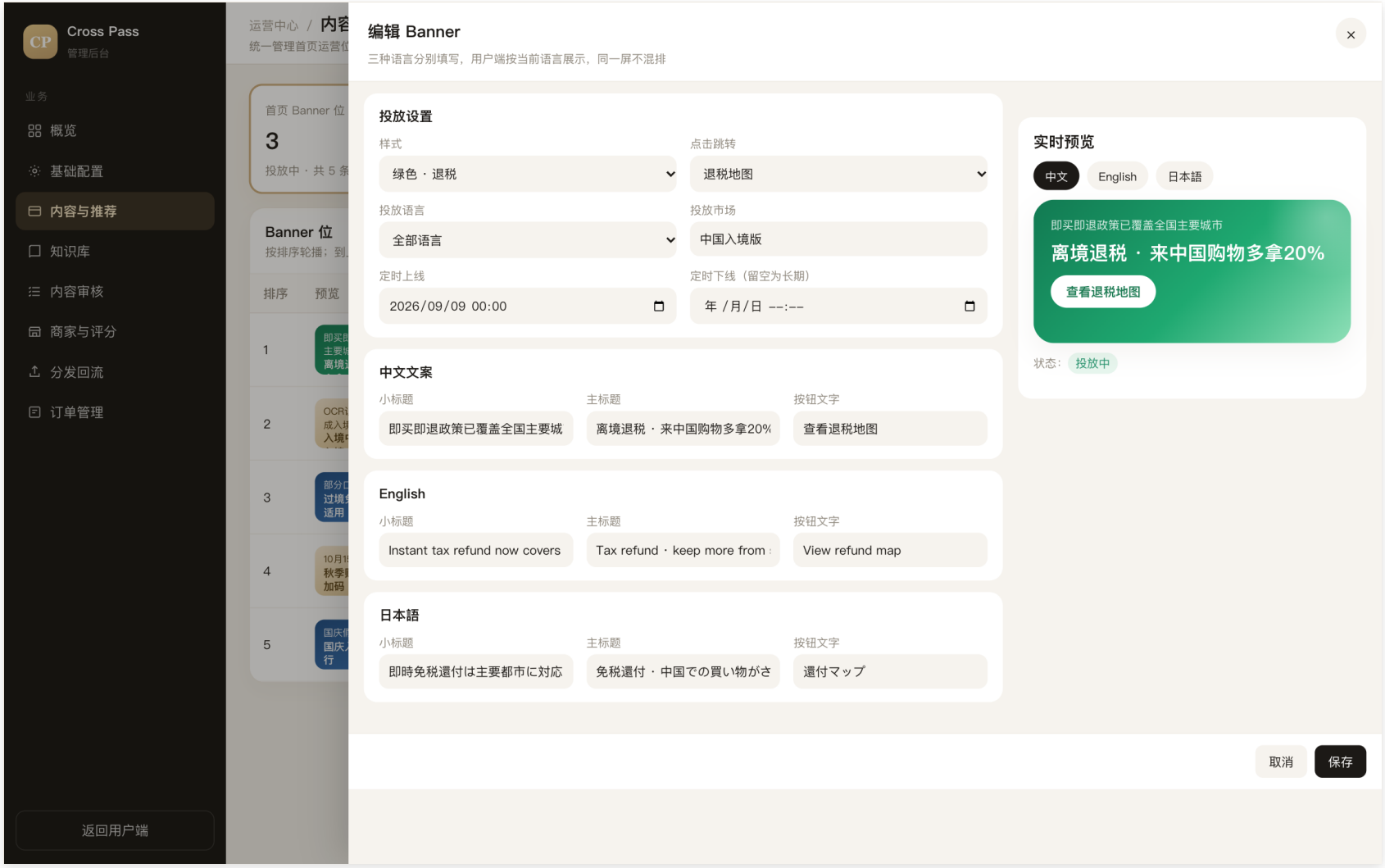
API status & ops activity; cards deep-link to modules

Related hours

#58 Ops dashboard	5h · ¥625
#54 Ops overview stats API	3h · ¥375

Total 8 hrs • ¥1,000

Admin prototypes • Content & recs • Banner



Banner

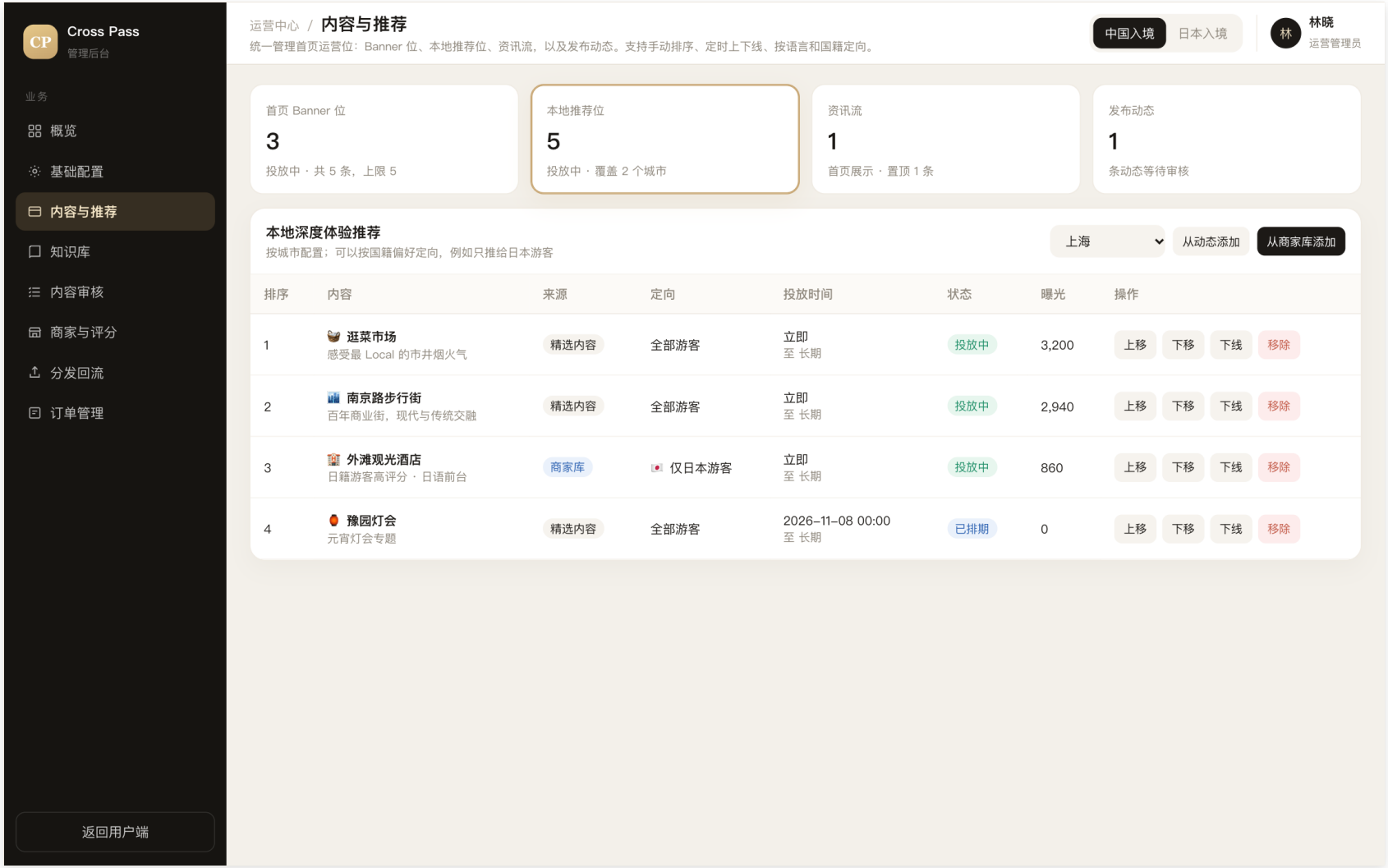
Trilingual copy & live preview

- Fill CN / EN / JP separately; live preview on the right
- Jump target, targeting language, schedule on / off
- List sort, on/off, exposure & CTR
- At most 5 live at once

Related hours

#60 Banner management	4h · ¥500
#38 Banner ops API	3h · ¥375
Total 7 hrs • ¥875	

Admin prototypes • Content & recs • Recs & news



Recs & news

By city; nationality targeting

Local recs by city; pick from merchants or posts

Can target visitors of specific nationalities

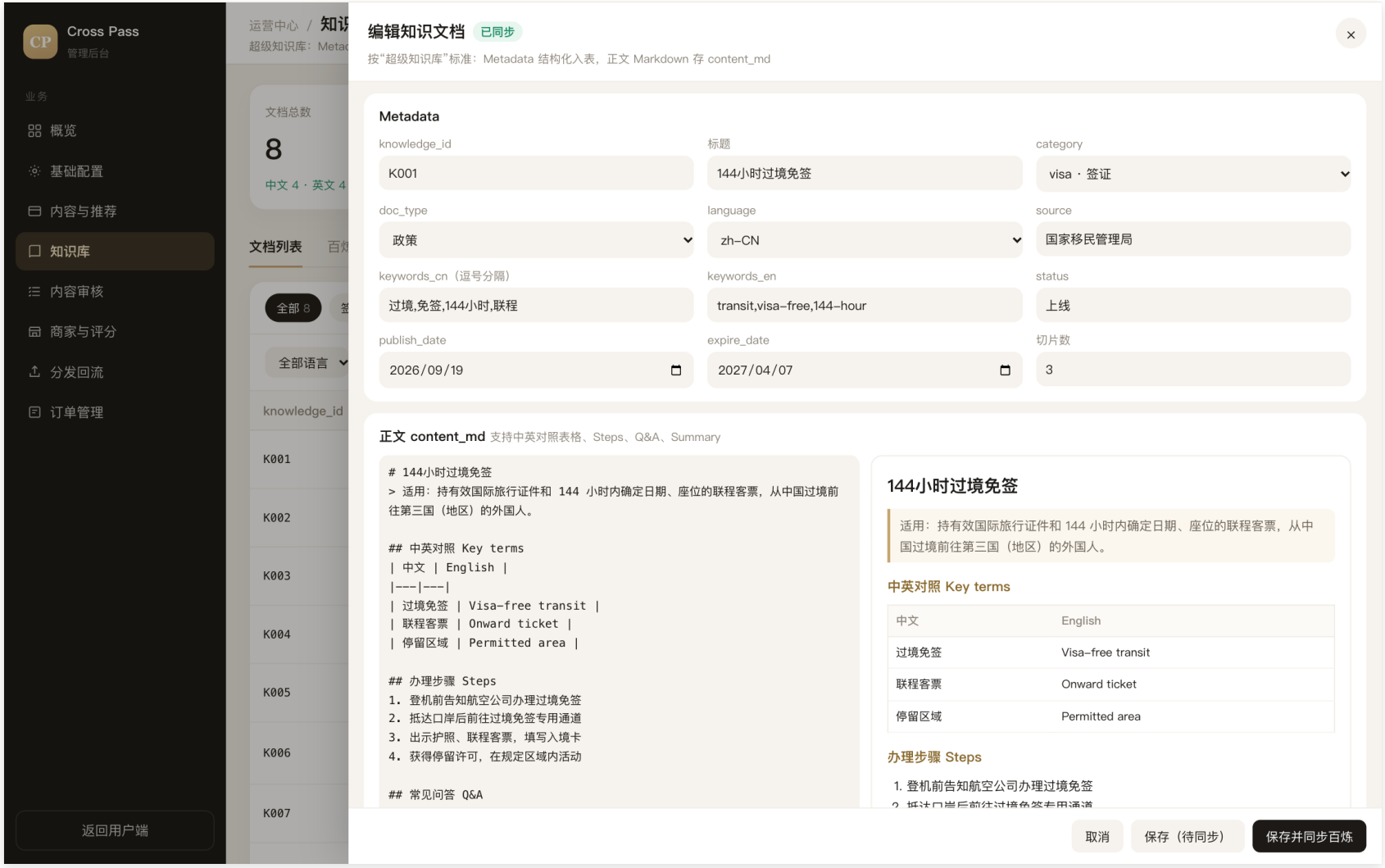
News feed: pin, home display; posts enter review

Related hours

#61 Local recommendation management	3h · ¥375
#39 Local recommendation API	2h · ¥250
#62 News feed & posts	2h · ¥250
#40 News feed API	1h · ¥125

Total 8 hrs • ¥1,000

Admin prototypes • KB • Editor



Editor

Super KB standard

Metadata form: category, doc_type, language, keywords, dates

Markdown body & preview side by side; built-in templates

On create, can split into zh-CN / en records

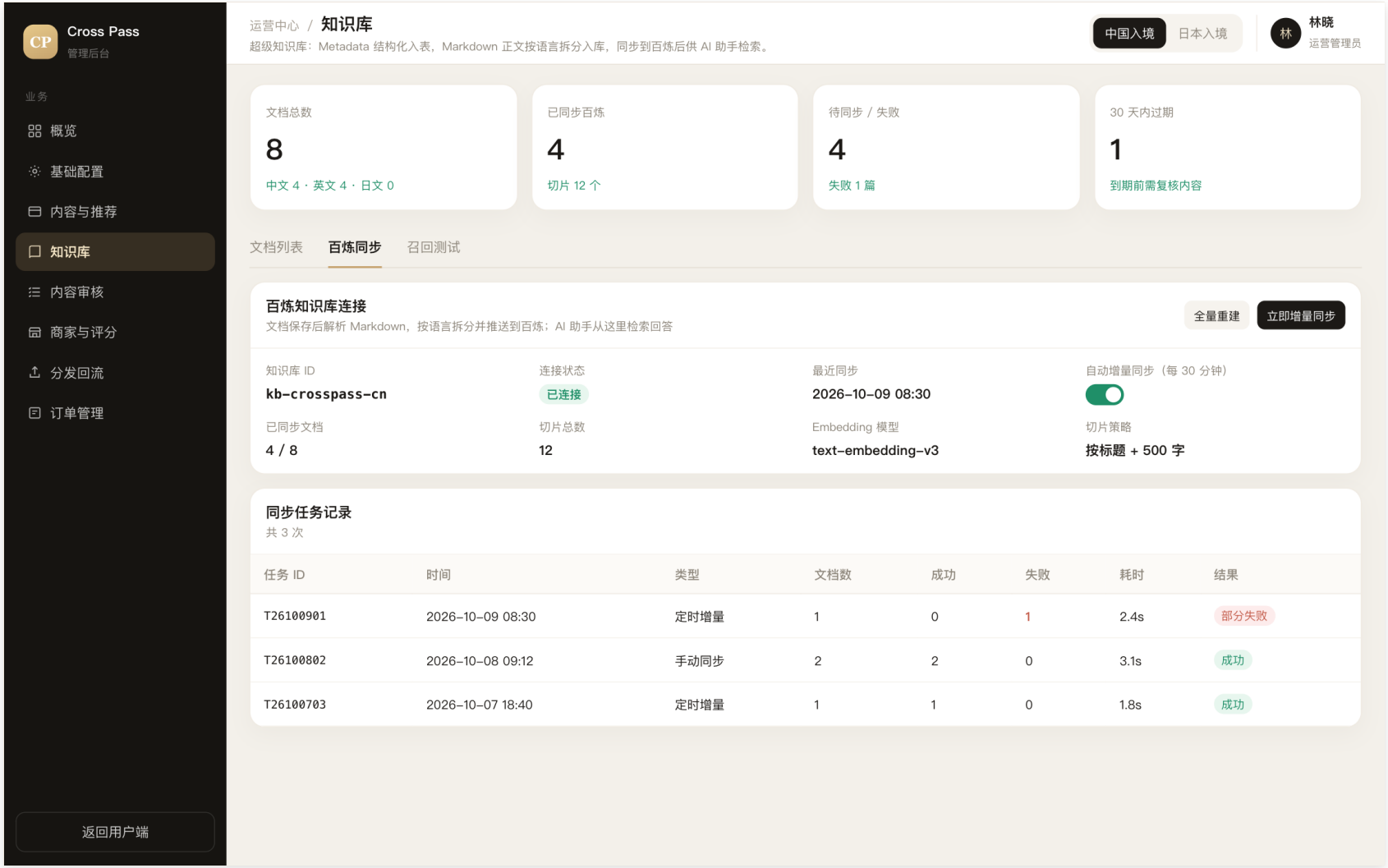
Save or save & sync Bailian

Related hours

#64 Markdown knowledge editor	4h · ¥500
#42 KB storage & parsing	3h · ¥375

Total 7 hrs • ¥875

Admin prototypes • KB • Bailian sync



Bailian sync

Sync status & task log

Connection info; auto incremental sync toggle

Tasks: type, doc count, success/fail, duration

Failed docs show reason; one-click retry

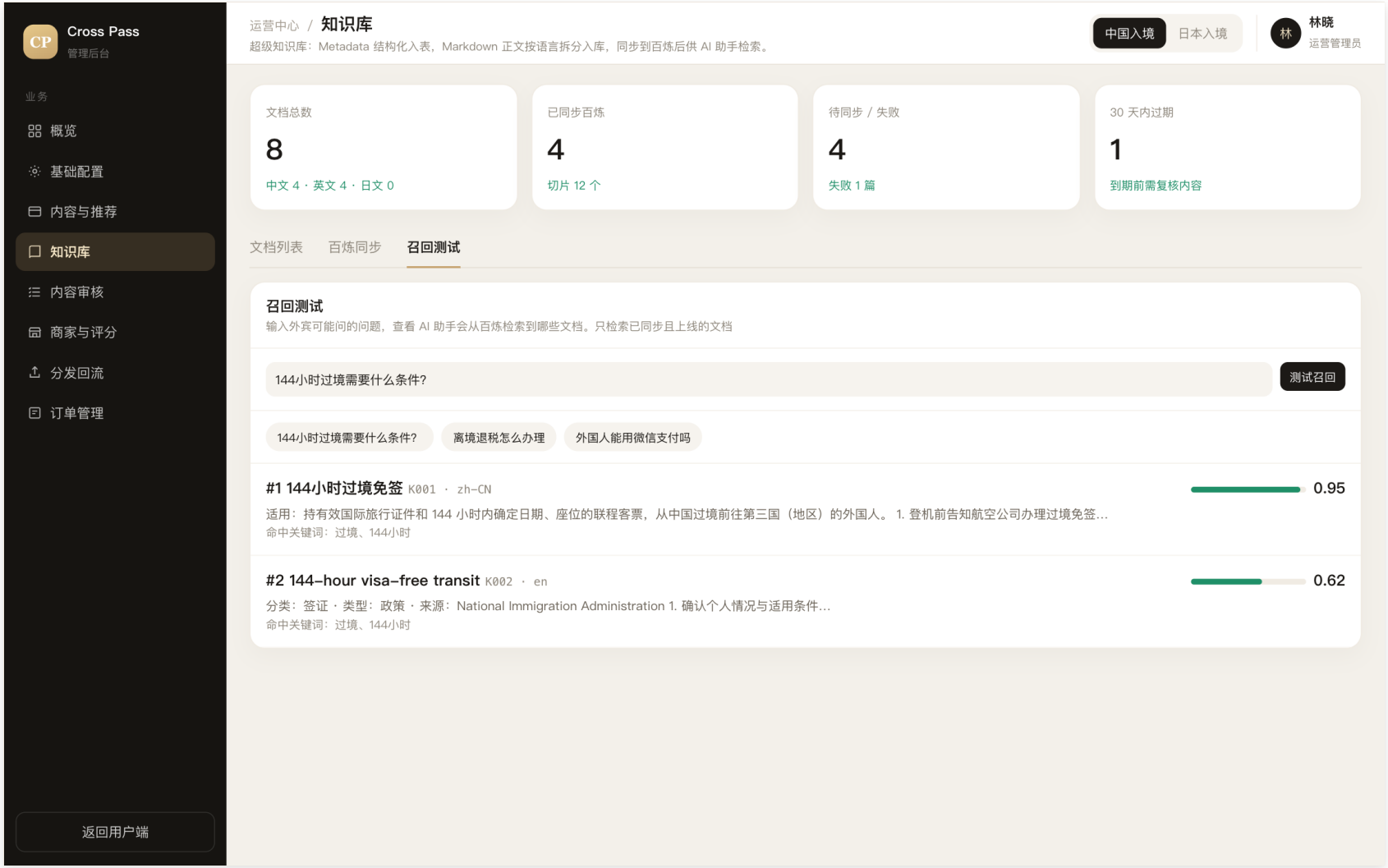
Full rebuild supported

Related hours

#65 Bailian sync management	2h · ¥250
#43 Bailian KB sync	4h · ¥500

Total 6 hrs • ¥750

Admin prototypes • KB • Recall test



Recall test

Verify which docs AI can retrieve

- Ask visitor-like questions or pick common ones
- Returns hit docs and similarity
- Only synced & online docs
- Pre-expiry review reminders

Related hours

#66 Recall testing	2h · ¥250
#44 Recall test & expiry reminders	2h · ¥250

Total 4 hrs • ¥500

Admin prototypes • Merchants & scores



Merchants & scores

Review, import & five scores

Unified list of three sources; one-click approve/reject

Amap POI mapped import into pending

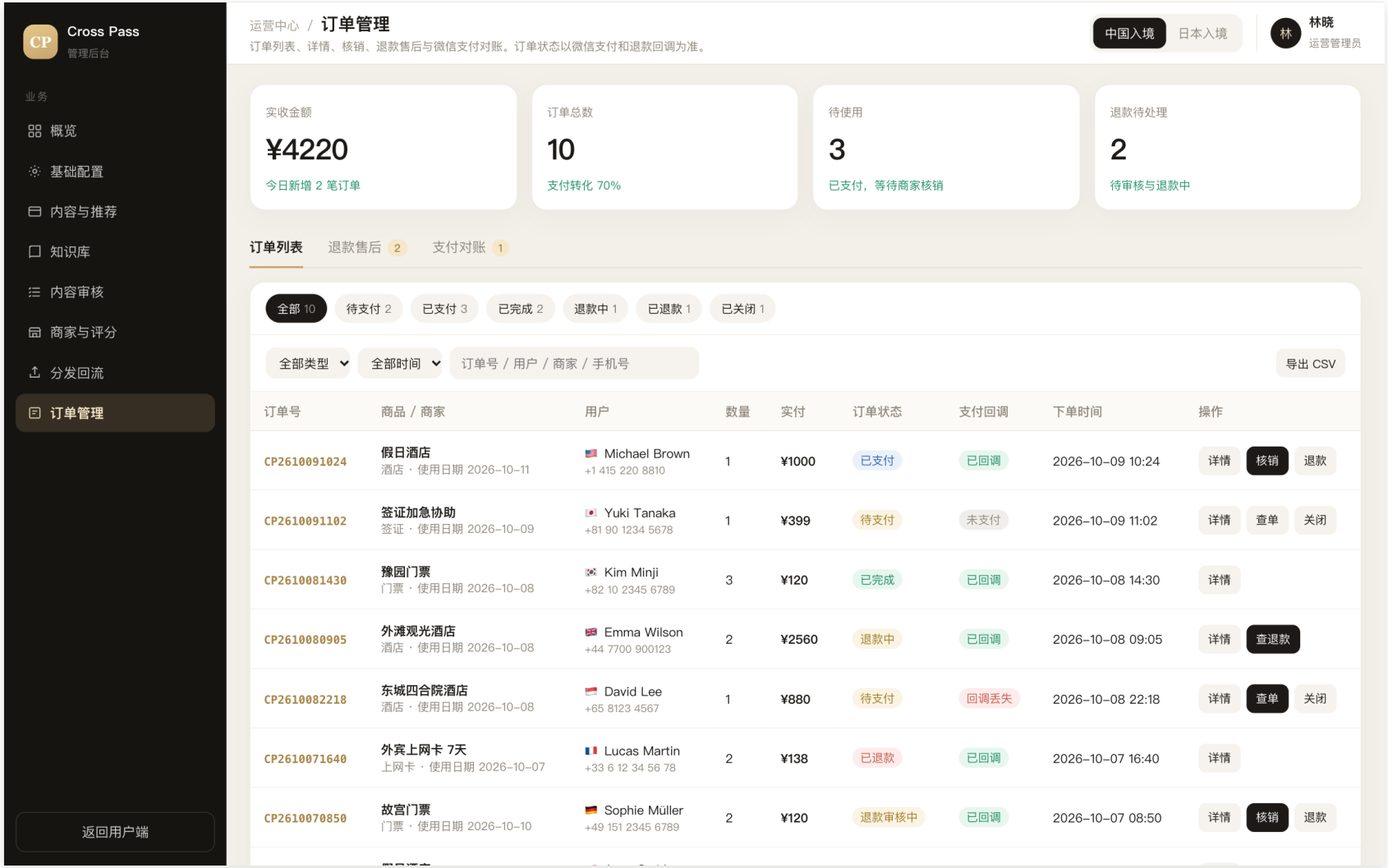
Five score sliders + click bonus; live badge

Related hours

#68 Merchant library & onboarding review	3h · ¥375
#69 Score entry	2h · ¥250
#34 Merchant CRUD & review	3h · ¥375
#37 5-point score calculation	2h · ¥250
#35 Amap POI mapping import	2h · ¥250

Total 12 hrs • ¥1,500

Admin prototypes • Orders • Order list



Order list

Filter, search, export

Filter by status, type, time; search order # / user

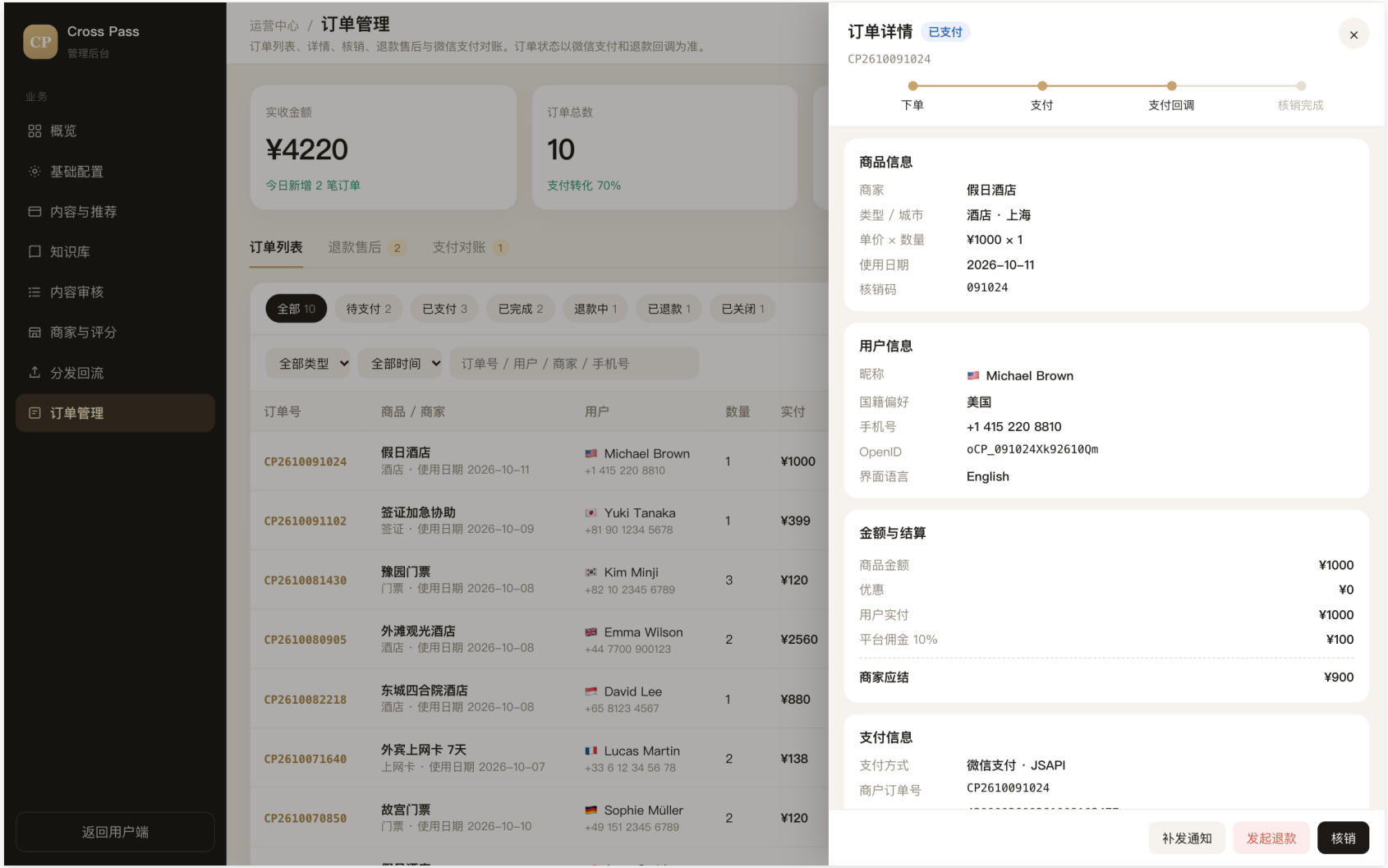
Top KPIs: net amount, order count, pending use, refunds pending

Export CSV

Related hours

#71 Order list	3h · ¥375
Total 3 hrs • ¥375	

Admin prototypes • Orders • Order detail



Order detail

Status, amount, callbacks & logs

Status progress, goods & user info

Amounts & merchant settlement (platform fee)

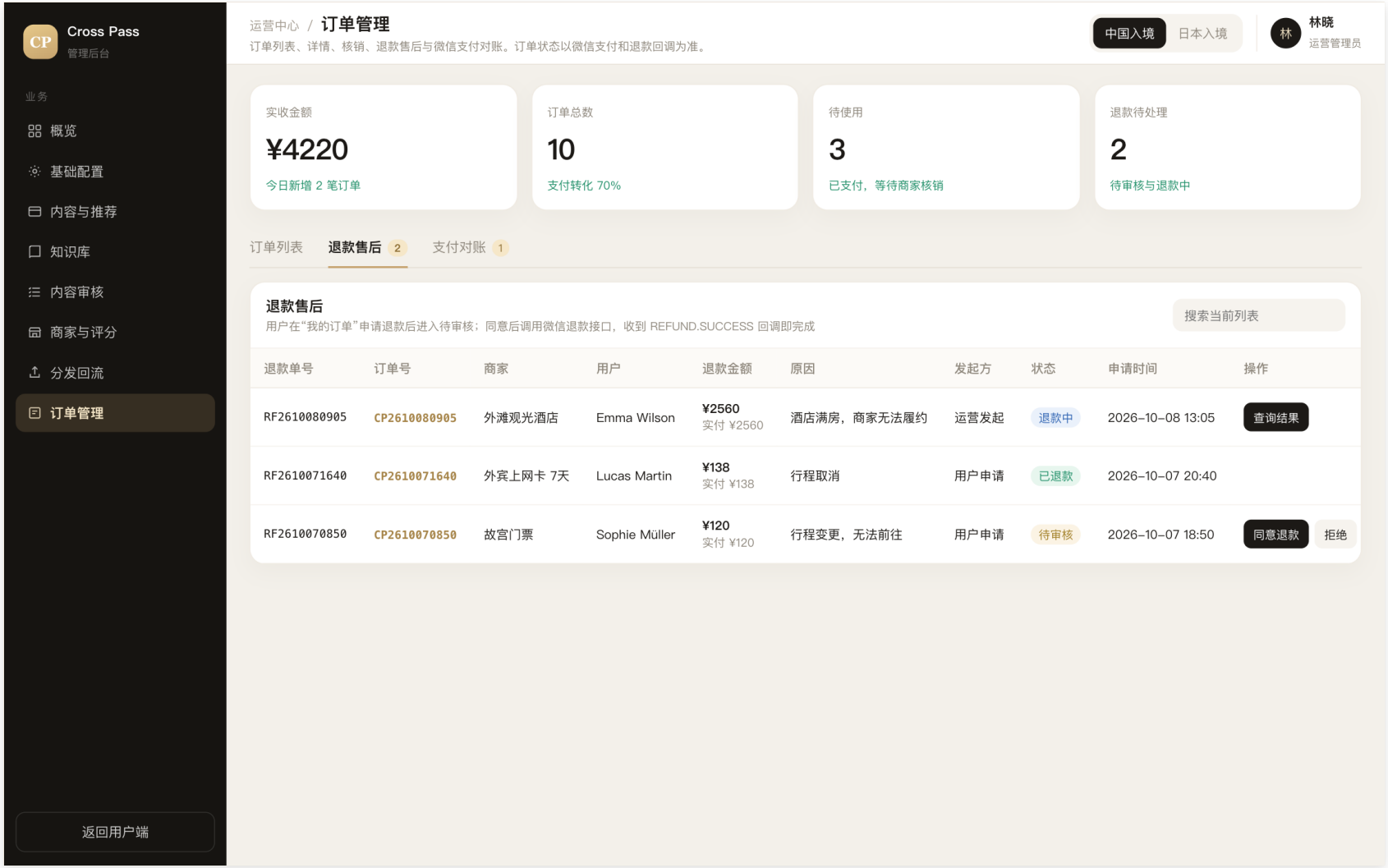
WeChat pay ID, callback status, ops log, admin notes

Redeem

Related hours

#72 Order detail	3h · ¥375
	Total 3 hrs • ¥375

Admin prototypes • Orders • Refunds



Refunds

Review & refund progress

User refund requests reviewed here

Full and partial refunds supported

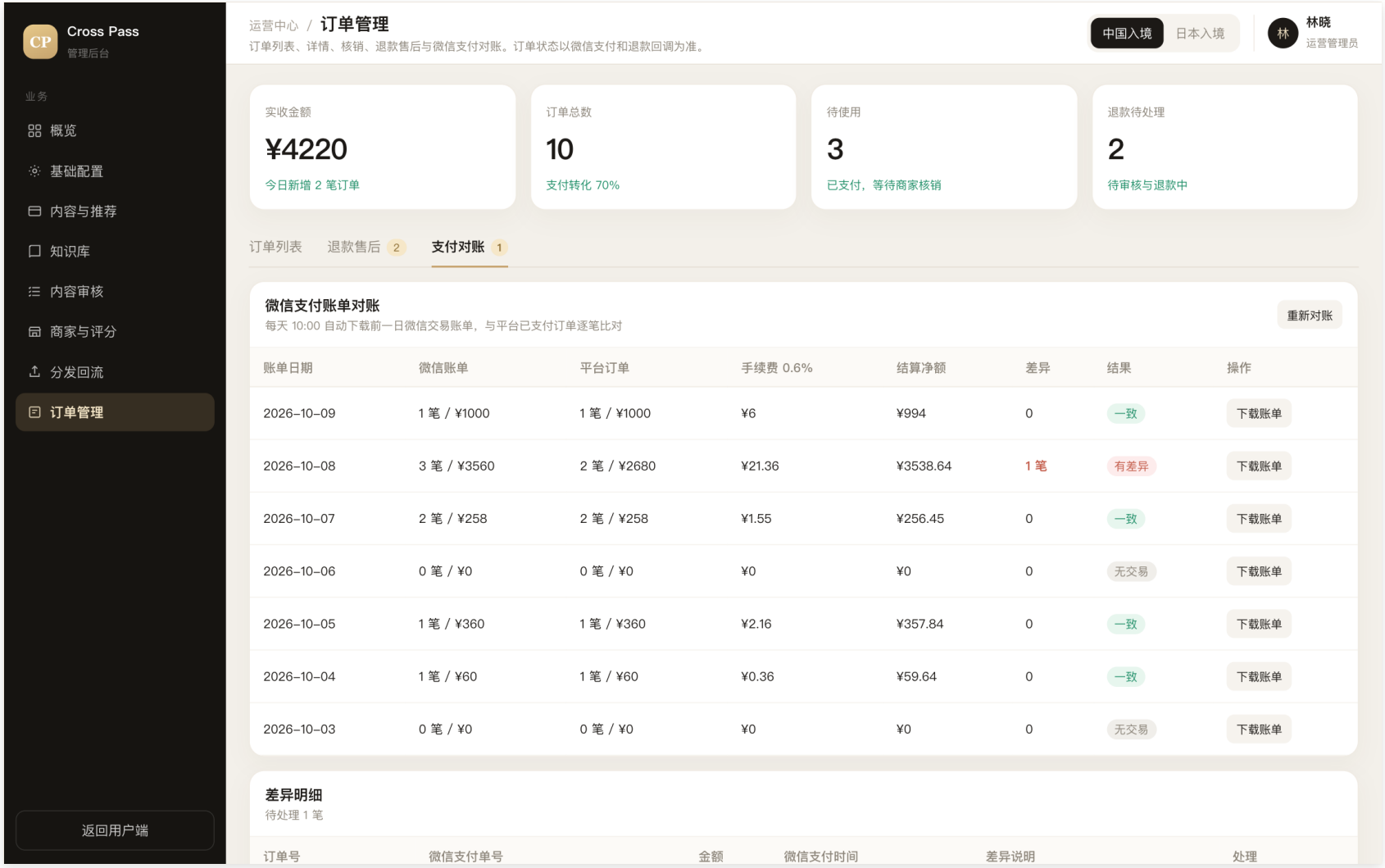
Status updates from refund callback

Related hours

#73 Refunds & after-sales	3h · ¥375
#51 WeChat refund	3h · ¥375

Total 6 hrs • ¥750

Admin prototypes • Orders • Payment recon



Payment recon

Daily bill vs order match

Pull WeChat bills and match platform orders

List missing-callback orders; active query/repair

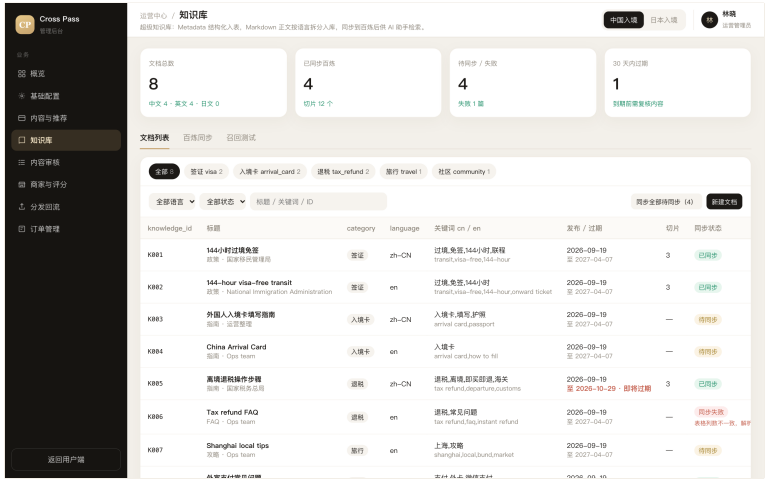
Redemption API

Related hours

#74 Payment reconciliation	3h · ¥375
#52 Payment reconciliation & redemption	3h · ¥375

Total 6 hrs • ¥750

Admin prototypes • Other modules

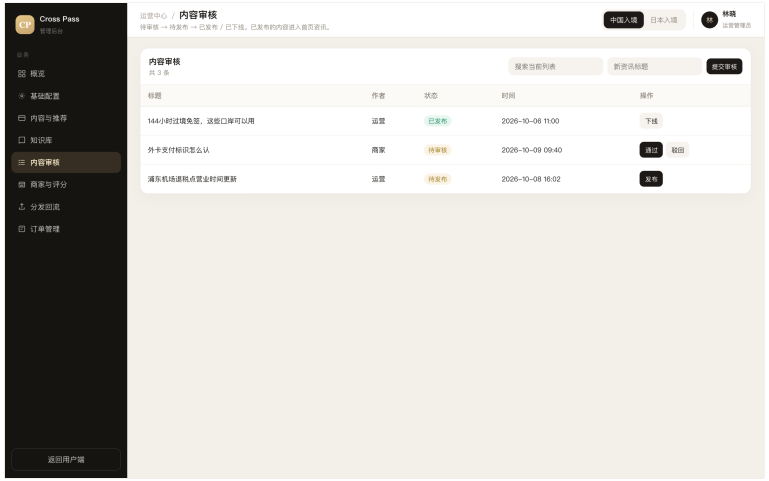


Knowledge doc list

#63 Knowledge document list

2h · ¥250

2 hrs • ¥250



Content review

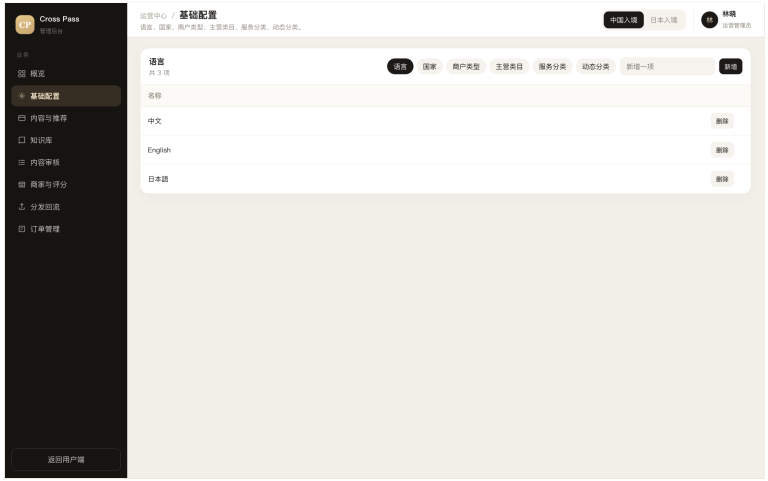
#67 Content review page

3h · ¥375

#41 Content production & review

2h · ¥250

5 hrs • ¥625



Basic config

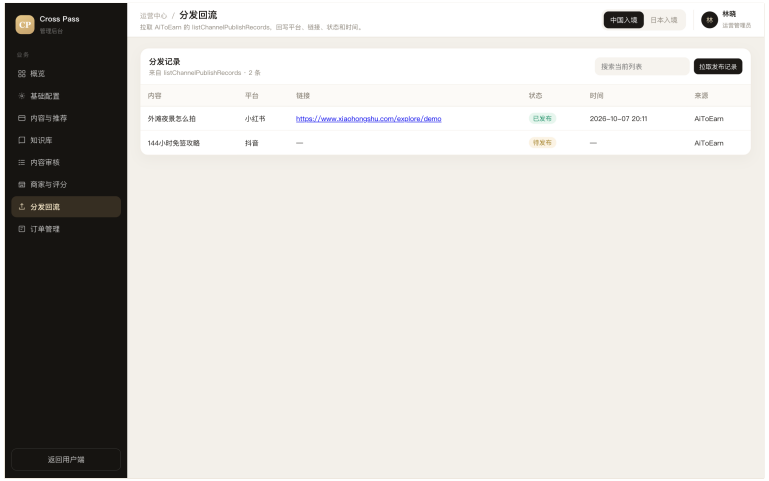
#59 Basic config pages

3h · ¥375

#33 Basic config API

2h · ¥250

5 hrs • ¥625



Distribution pullback

#70 Distribution records page

2h · ¥250

#48 AiToEarn data pullback

3h · ¥375

5 hrs • ¥625

04

Hours & quote

Quote overview · By end · 84 hour-detail lines · Payment milestones

Pricing: 1 person-day = 8 hrs = ¥1,000, i.e. ¥125/hr; line amount = hours × 125

Quote overview

84 feature items, 232 hours; line amount = hours × ¥125; no rounding markup

Phase 1 • Test-page acceptance
¥17,500
140 hrs · 17.5 person-days

Phase 2 • Ops polish
¥10,500
84 hrs · 10.5 person-days

Later • App shell
¥1,000
8 hrs · 1 person-days

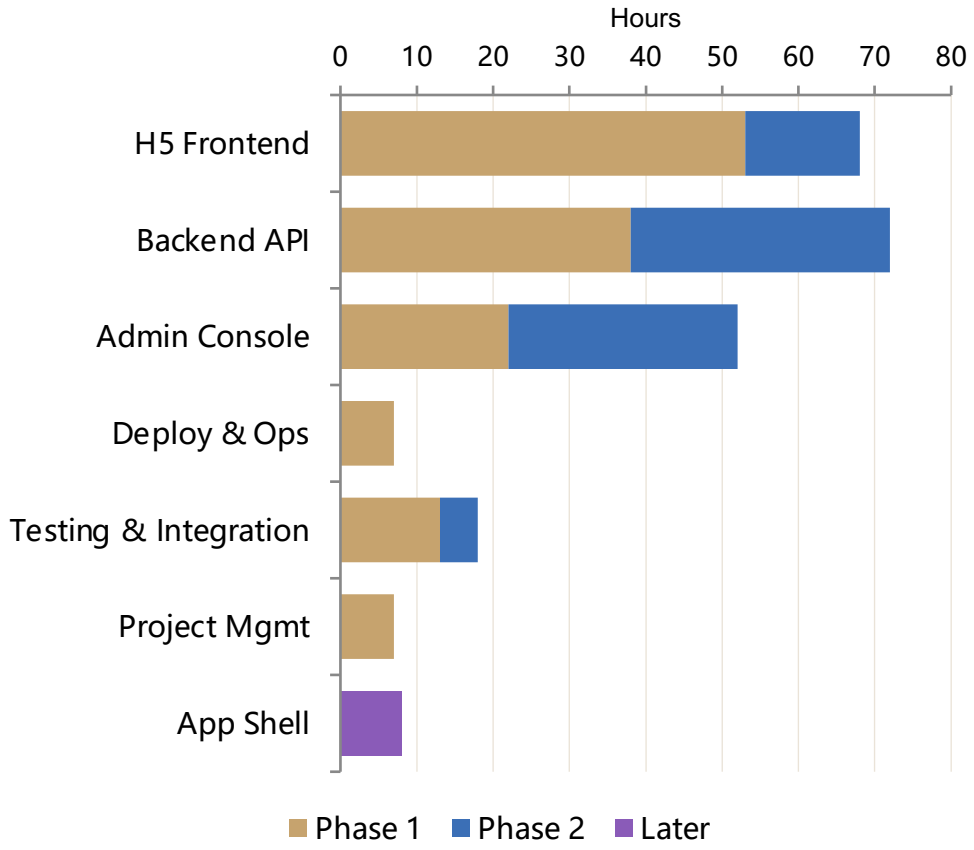
Total
¥29,000
232 hrs · 29 person-days

Phase	Scope	Hours	P-days	Amount
Phase 1	Phase-1 acceptance scope: dual-market H5 main flows, WeChat login & pay, AI chat & visa assessment, merchants & scoring, KB edit & Bailian sync, order list & detail, deploy live	140	17.5	**¥17,500**
Phase 2	Ops polish: ops dashboard, banner/recs/news ops, content review, refunds & reconciliation, tax-refund map, arrival-card guide, merchant onboarding form, AiToEarn pullback, recall testing	84	10.5	**¥10,500**
Later	App shell: Android/iOS WebView packaging; reuse H5 code	8	1	**¥1,000**
Total	Phase 1 + Phase 2 + Later	**232**	**29**	**¥29,000**

By end

Hours by end across three phases; amount = hours × ¥125

End	Phase 1	Phase 2	Later	Total (hrs)	Amount
H5 Frontend	53	15	0	**68**	**¥8,500**
Backend API	38	34	0	**72**	**¥9,000**
Admin Console	22	30	0	**52**	**¥6,500**
Deploy & Ops	7	0	0	**7**	**¥875**
Testing & Integration	13	5	0	**18**	**¥2,250**
Project Mgmt	7	0	0	**7**	**¥875**
App Shell	0	0	8	**8**	**¥1,000**
Total	**140**	**84**	**8**	**232**	**¥29,000**



H5 hours concentrate in Phase 1; admin is mostly Phase 2: refunds & recon, ops slots, dashboard, recall testing, etc.

Hour details • H5 Frontend (1/2)

Subtotal 68 hrs · ¥8,500 (Phase 1 53h / Phase 2 15h)

#	Module	Feature	Description	Phase	Hours	Amount	Note
1	Engineering foundation	**UniApp project setup**	Folder conventions, request wrapper, routing, state, env config	Phase 1	2	¥250	
2	Engineering foundation	**i18n framework (CN/EN/JP)**	i18n wiring, language switch, content loaded by language	Phase 1	2	¥250	
3	Engineering foundation	**Dual-market entry**	Entry-version picker; CN/JP builds via dual path or domain; market params isolated	Phase 1	4	¥500	
4	Login & signup	**Login / signup page**	Account signup/login, form validation, session state	Phase 1	1	¥125	
5	Login & signup	**WeChat OAuth login**	OA web OAuth for OpenID; one-tap login	Phase 1	2	¥250	
6	Home tab	**Home frame & banner**	City switch, shortcuts, banner carousel (by language)	Phase 1	3	¥375	Scope refined
7	Home tab	**Tax-refund guide**	Tax-refund steps, eligibility, jump to refund map	Phase 1	2	¥250	Added from prototype
8	Home tab	**Tax-refund map**	Refund-point list & location, hours, map navigation	Phase 2	3	¥375	Added from prototype
9	Home tab	**Local deep-experience picks**	Recommendations by city and nationality preference	Phase 1	2	¥250	Scope refined
10	Home tab	**AI visa assessment**	Destination/purpose/passport/days form; AI assessment result page	Phase 1	4	¥500	Added from prototype
11	Home tab	**Arrival-card fill guide**	Step-by-step instructions and sample fill pages	Phase 2	2	¥250	Added from prototype
12	Home tab	**News feed**	News list, pin, paginated load	Phase 1	1	¥125	
13	AI assistant tab	**AI chat page**	Message list, input, loading states; AI agent API	Phase 1	6	¥750	

Hour details • H5 Frontend (2/2)

Subtotal 68 hrs · ¥8,500 (Phase 1 53h / Phase 2 15h)

#	Module	Feature	Description	Phase	Hours	Amount	Note
14	AI assistant tab	**Suggested Qs & chat history**	Quick questions, history, copy answer	Phase 2	2	¥250	Added from prototype
15	Discover tab	**Merchant list**	List, pagination, city/category filters, certified-only	Phase 1	3	¥375	
16	Discover tab	**Certification badge component**	Render by badge_level; multilingual text or image	Phase 1	1	¥125	
17	Me tab	**Profile center**	Profile, language, nationality preference, switch entry version	Phase 1	2	¥250	
18	Me tab	**My orders**	Order list/detail, voucher, refund request & progress	Phase 1	4	¥500	Added from prototype
19	Me tab	**My favorites**	Favorite / unfavorite; favorites list	Phase 2	1	¥125	Added from prototype
20	Detail pages	**Content detail page**	Rich-text content display	Phase 1	1	¥125	
21	Detail pages	**Merchant detail page**	Large badge, CERTIFIED mark, foreigner-friendly tags, book CTA	Phase 1	2	¥250	Scope refined
22	Cities & guides	**City list**	City picker; load content by city	Phase 1	1	¥125	
23	Cities & guides	**Service-guide short video slot**	Video player slot and list	Phase 2	1	¥125	
24	Payment	**Checkout & WeChat JSAPI pay**	Checkout (date/qty), invoke pay, result page	Phase 1	4	¥500	
25	Merchant onboarding	**Public merchant onboarding form**	CN/EN/JP switch, field validation, image upload, submit	Phase 2	6	¥750	
26	Compatibility testing	**Multi-device compatibility**	WeChat browser + iOS/Android device adaptation	Phase 1	6	¥750	
	Subtotal				**68**	**¥8,500**	

Hour details • Backend API (1/2)

Subtotal 72 hrs · ¥9,000 (Phase 1 38h / Phase 2 34h)

#	Module	Feature	Description	Phase	Hours	Amount	Note
27	Engineering foundation	**Backend project setup**	Lightweight framework, unified response, errors, logs, auth middleware	Phase 1	2	¥250	
28	Data layer	**DB design & schema**	Tables for users, merchants, scores, KB, content, ops slots, distribution, orders, refunds, config	Phase 1	5	¥625	Scope refined
29	Data layer	**Dual-market data isolation**	Isolate data and queries by market / language	Phase 1	3	¥375	
30	User auth	**Signup/login API**	Account signup/login; token issue & validate	Phase 1	1	¥125	
31	User auth	**WeChat OpenID login binding**	OAuth callback; auto-create account and bind	Phase 1	3	¥375	
32	User auth	**User prefs & favorites API**	Language/nationality/city prefs; favorites CRUD	Phase 2	1	¥125	Added from prototype
33	Basic config	**Basic config API**	Language, country, merchant type, categories, service & feed categories	Phase 2	2	¥250	
34	Merchant library	**Merchant CRUD & review**	Unify three sources; pending / published / rejected	Phase 1	3	¥375	
35	Merchant library	**Amap POI mapping import**	POI field mapping and bulk import	Phase 2	2	¥250	
36	Merchant library	**Merchant onboarding form API**	Public submit API, anti-abuse, write as pending review	Phase 2	1	¥125	
37	Scoring system	**5-point score calculation**	Five-dimension avg, bonus, final score, badge mapping	Phase 1	2	¥250	
38	Content & recommendations	**Banner ops API**	Trilingual copy, language targeting, manual sort, schedule on/off, exposure/click stats	Phase 2	3	¥375	Scope refined
39	Content & recommendations	**Local recommendation API**	By city; nationality targeting; pick from merchants or posts	Phase 2	2	¥250	Added from prototype
40	Content & recommendat	**News feed API**	Pin and home-display toggles	Phase	1	¥125	Scope

Hour details • Backend API (2/2)

Subtotal 72 hrs · ¥9,000 (Phase 1 38h / Phase 2 34h)

#	Module	Feature	Description	Phase	Hours	Amount	Note
42	Knowledge base	**KB storage & parsing**	Store Markdown in content_md; metadata tables; split by language	Phase 1	3	¥375	
43	Knowledge base	**Bailian KB sync**	Push to Bailian; incremental/full sync; retry; sync logs	Phase 1	4	¥500	Scope refined
44	Knowledge base	**Recall test & expiry reminders**	Bailian retrieval hits; pre-expiry review reminders	Phase 2	2	¥250	Added from prototype
45	AI services	**AI agent API integration**	Call per docs; session relay; timeout & error handling	Phase 1	2	¥250	
46	AI services	**Visa assessment API**	Assemble form params for AI; structured assessment result	Phase 1	2	¥250	Added from prototype
47	AI services	**Tax-refund & arrival-guide data**	Maintain/query refund points; arrival-card guide content API	Phase 2	2	¥250	Added from prototype
48	External integrations	**AiToEarn data pullback**	Cron listChannelPublishRecords; write distribution records	Phase 2	3	¥375	
49	Orders & payment	**Order API & state machine**	Place order; pending/paid/done/refunding/refunded/closed; auto-close on timeout	Phase 1	3	¥375	Added from prototype
50	Orders & payment	**WeChat JSAPI payment**	Unified order, sign, callback verify, order status update	Phase 1	4	¥500	
51	Orders & payment	**WeChat refund**	Full/partial refund, review, refund result callback	Phase 2	3	¥375	Added from prototype
52	Orders & payment	**Payment reconciliation & redemption**	Active query/repair orders; missing-callback detect; redemption API	Phase 2	3	¥375	Added from prototype
53	WeChat	**Message push reserved APIs**	Reserve template / customer-service message APIs	Phase 2	2	¥250	
54	Analytics	**Ops overview stats API**	GMV, orders, visitor trends; todo aggregate; distributions & rankings	Phase	3	¥375	Added from

Hour details • Admin Console

Subtotal 52 hrs · ¥6,500 (Phase 1 22h / Phase 2 30h)

#	Module	Feature	Description	Phase	Hours	Amount	Note
57	Engineering foundation	**Admin framework setup**	Login, menu, permissions, layout, dual-market switch	Phase 1	3	¥375	Scope refined
58	Ops overview	**Ops dashboard**	KPIs, 7-day trends, todo hub, distributions/rankings, API status, ops activity	Phase 2	5	¥625	Added from prototype
59	Basic config	**Basic config pages**	CRUD for config items	Phase 2	3	¥375	
60	Content & recommendations	**Banner management**	Trilingual edit + live preview, targeting language, sort, schedule, CTR	Phase 2	4	¥500	Scope refined
61	Content & recommendations	**Local recommendation management**	By city; nationality targeting; pick from merchants/posts; sort	Phase 2	3	¥375	Scope refined
62	Content & recommendations	**News feed & posts**	Pin, home display toggle, post form	Phase 2	2	¥250	Scope refined
63	Knowledge base	**Knowledge document list**	Filter by category/language/status; on/off; expiry reminders	Phase 1	2	¥250	Scope refined
64	Knowledge base	**Markdown knowledge editor**	Metadata form, templates, edit/preview, save split by language	Phase 1	4	¥500	Added from prototype
65	Knowledge base	**Bailian sync management**	Sync logs, retry, incremental/full sync, auto-sync toggle	Phase 1	2	¥250	Scope refined
66	Knowledge base	**Recall testing**	Enter a question; see hit docs and similarity	Phase 2	2	¥250	Added from prototype
67	Content workflow	**Content review page**	Pending list; approve/reject; publish status	Phase 2	3	¥375	
68	Merchant management	**Merchant library & onboarding review**	One-click review, import, sync publish	Phase 1	3	¥375	
69	Merchant	**Score entry**	Five scores, bonus, live badge level	Phase	2	¥250	Scope

Hour details • Deploy, testing, PM & App shell

Subtotal 40 hrs · ¥5,000 (Phase 1 27h / Phase 2 5h / Later 8h)

#	Module	Feature	Description	Phase	Hours	Amount	Note
75	Deploy & Ops · Server	**Server environment deploy**	aaPanel, Nginx, MySQL, backend, dual domains, HTTPS	Phase 1	2	¥250	
76	Deploy & Ops · Server	**2C2G lightweight tuning**	Memory params, process daemon, resource verification	Phase 1	2	¥250	
77	Deploy & Ops · WeChat setup	**WeChat OA & merchant config**	OAuth domain, JS security domain, pay path, pay/refund callbacks	Phase 1	3	¥375	
78	Testing & Integration · Integration	**Phase-1 FE/BE integration**	API integration; end-to-end data flow	Phase 1	6	¥750	Scope refined
79	Testing & Integration · Integration	**Phase-2 FE/BE integration**	Phase-2 API integration; end-to-end data flow	Phase 2	5	¥625	Added from prototype
80	Testing & Integration · Acceptance	**Acceptance testing & bug fixes**	Self-test and fix against acceptance criteria	Phase 1	7	¥875	Scope refined
81	Project Mgmt · Coordination	**Interactive prototype & requirements**	Clickable prototype (H5 + admin); clarify requirements	Phase 1	4	¥500	Added from prototype
82	Project Mgmt · Coordination	**Progress sync & delivery docs**	Progress sync, deploy docs, source delivery notes	Phase 1	3	¥375	
83	App Shell · Packaging	**Android WebView shell**	Shell project, build, signing	Later	4	¥500	
84	App Shell · Packaging	**iOS WebView shell**	Shell project, build, certificate setup	Later	4	¥500	
	Subtotal				**40**	**¥5,000**	

Payment milestones & quote notes

Per requirements 30% / 50% / 20% on Phase 1 + Phase 2 quote ¥28,000; App shell ¥1,000 billed separately

1 Deposit • 30%

¥8,400

After contract signing

2 Test-page acceptance • 50%

¥14,000

Phase-1 test pages accepted

3 Final payment • 20%

¥5,600

Phase 2 done; source delivered

App shell (Later)

¥1,000

Billed after H5 stabilizes

Quote notes

1. Quote includes: H5 frontend, backend API, admin console source; deploy to the designated server; pass tests per acceptance criteria.

2. Quote excludes third-party costs: servers, domains, WeChat certification & payment fees, Bailian/AI calls, map API fees, app-store developer accounts.

3. Hours are estimated from the confirmed clickable prototype (H5 + admin). 1 person-day = 8 hours at ¥1,000, i.e. ¥125/hour; each line amount = hours × 125.

4. Scope beyond the prototype is estimated at the same rate. Notes column: Added from prototype = features added after prototype confirmation; Scope refined = original items detailed against the prototype.

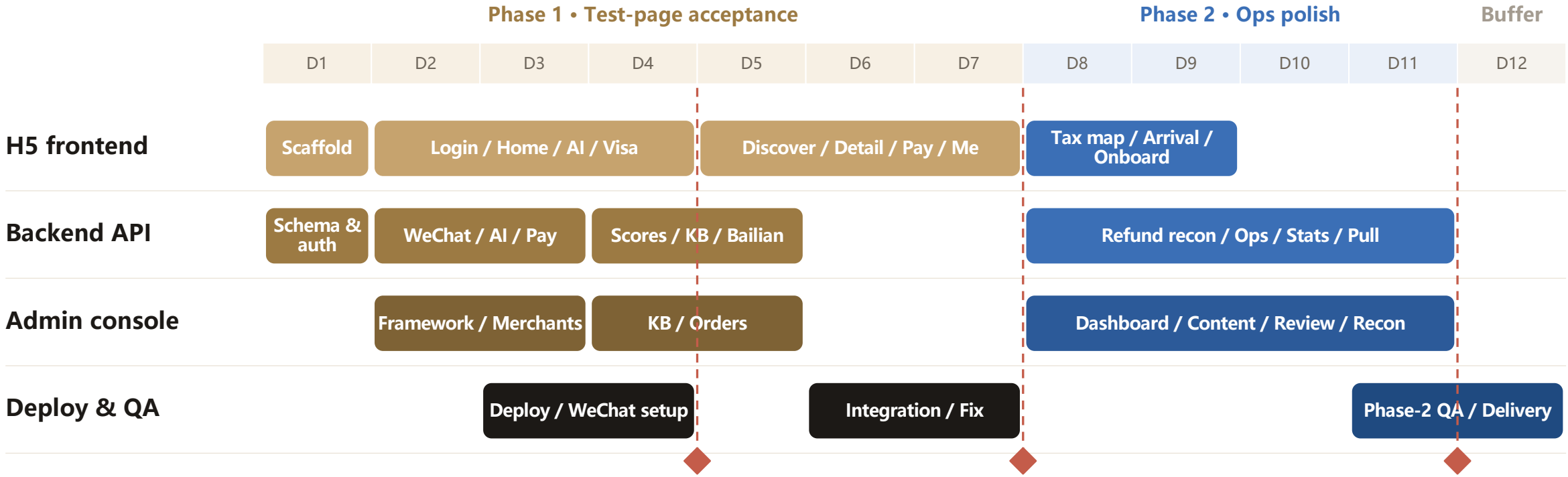
05

Schedule & delivery

Schedule & milestones · Deliverables & client prep · Acceptance · Risks & open items

Schedule & milestones

3 parallel roles (H5, backend, admin); unit = working days; Phase 1 140 hrs, Phase 2 84 hrs



M1 • H5 test pages live

Public access, login, AI call, invoke pay

M2 • Phase-1 acceptance

Full test-page acceptance scope done

M3 • Phase-2 delivery

Ops features, source & docs delivered

App shell (8 hrs, ~1 working days) after H5 is stable. Requirements ask for H5 test pages in 3–5 days → milestone M1.

Deliverables & client prep

Earlier credentials mean earlier integration; WeChat setup needs your admin to authorize via scan

Our deliverables

1. **Full source code** — H5 (UniApp), admin console, backend API, App shell
2. **Deploy live** — Deploy to your server; dual-domain HTTPS; verify 2C2G usage
3. **DB scripts** — Schema scripts & seed data (cities, config dictionaries)
4. **Documentation** — Deploy guide, API notes, admin ops guide
5. **Clickable prototype** — Already delivered; basis for feature acceptance

Client provides	Used for
WeChat OA (verified) AppID, AppSecret	OAuth login, message push
WeChat Pay merchant ID, APIv3 key, certs	JSAPI pay, refunds, recon
ICP-filed domains (China & Japan editions)	H5 access, WeChat OAuth & JS security domains
Server (Alibaba Cloud HK 2C2G, aaPanel)	Deploy
AI agent API docs & key	AI chat, visa assessment
Bailian AccessKey, KB ID	KB sync & recall tests
AiToEarn API Key	Distribution pullback
Amap Web service Key (if POI import)	Merchant data import
UI comps, logo, multilingual copy	Page implementation

Acceptance criteria

Mapped to requirements §6 with per-item verification methods

Requirement criterion	How we verify	Phase
1. Domains publicly reachable; core pages render	Open CN & JP domains in WeChat; check four tabs and detail pages	Phase 1
2. Users can register/login; AI API responds	Walk WeChat OAuth and phone login; AI chat & visa assessment return results	Phase 1
3. Admin can view data, publish, sync Bailian KB	Create KB doc and sync to Synced; recall test hits	Phase 1
4. WeChat Pay invokes and callbacks correctly	Real small payment → Paid after callback; Phase 2 verifies refund callback	P1 / P2
5. Merchant scoring calculates and displays	Enter five scores; badges per mapping; certified-only filter works	Phase 1
6. 2C2G without OOM	After deploy, check memory/CPU; load-test core APIs	Phase 1
Phase-2 features	Page-by-page vs prototype: dashboard, ops slots, review, refunds, recon, onboard form, distribution	Phase 2

Risks & open items

These affect go-live timing or scope — please confirm before signing

Item	Notes	Recommendation
Domain ICP filing	WeChat OAuth & JS security domains need ICP-filed domains; HK servers cannot file ICP themselves	Use your filed domains, or confirm filing approach
Japan edition currency	Domestic WeChat Pay settles in CNY; JPY pricing needs a settlement approach	Price/settle in CNY, or separately assess cross-border payout
Timeline	Requirements ask for H5 test pages in 3–5 days	Maps to M1; credentials needed before kickoff
AI output format	Visa assessment needs structured conclusion + document list	Confirm agent can return agreed JSON
Third-party access	Bailian, AiToEarn, WeChat Pay API permissions & keys	Provide test-environment accounts before kickoff

Out of scope

- Passport OCR; official arrival-card system integration
- AI model training/inference (API calls only)
- Formal UI visual design (implement from your UI comps)
- Content ops & KB content writing
- Servers, domains, WeChat certification, pay fees, Bailian/AI/map fees, app-store accounts
- Long-term post-launch ops (can be contracted separately)

Thank you

Phase 1 ¥17,500 · Phase 2 ¥10,500 · App shell ¥1,000 · Total ¥29,000

Hour details are in Hours.xlsx — please share any adjustments