RWA App Summary (Repo-based)

What it is
- Monorepo for apartment-share tokenization and trading on GIWA Sepolia.
- Includes contracts, API server, ingester, and Flink indexer.

Who it's for
- Issuer/admin ops teams running onboarding, compliance,
  tokenization, and trade operations.

What it does
- Deploys/uses 5 contracts: MockUSD, PropertyRegistry,
  PropertyShare1155, PropertyTokenizer, and FixedPriceMarketDvP.
- Imports complex/class/unit data and exposes catalog APIs.
- Creates custodial wallets and external-user links.
- Applies off-chain compliance approve/revoke in admin APIs.
- Tokenizes classes into ERC-1155 unit tokenIds at SHARE_SCALE 1e18.
- Runs listing, buying, and cancel trade APIs.
- Maintains listings/trades/balances read models from chain events.

How it works (repo evidence)
- contracts/: Hardhat deploy/test; exports ABIs + deployments to shared/.
- server/: Spring Boot + Flyway + Postgres + Web3j.
- ingester/: polls GIWA logs using shared event signatures,
  then publishes Kafka topic chain.logs.raw.
- flink/: consumes chain.logs.raw, decodes market/ERC1155 events,
  dedups with processed_events, writes listings/trades/balances.
- Server query APIs read those read models.
- Frontend/web UI: Not found in repo.

How to run (minimal)
1. infra: cd infra && docker compose up -d
2. contracts (optional): cd contracts; cp .env.example .env; npm install
3. server: cd server; cp .env.example .env; ./gradlew bootRun
4. ingester: cd ingester; cp .env.example .env
   set -a && source .env && set +a && ./gradlew run
5. flink: cd flink; cp .env.example .env
   set -a && source .env && set +a && ./gradlew run
6. smoke test: cd server
   BASE_URL=http://localhost:8080 ADMIN_TOKEN=<token> ./scripts/smoke_e2e.sh