Cashi Technology Challenge V4

The purpose of this coding challenge is:

- To see what kind of coder you are
- So you can see what kind of technology you'll be working on
- So we can work together to solve a tricky problem and see if our communication skills are compatible.

When you've completed your solution, send us your **GitHub** and we'll schedule a call for you to present your solution to us and give both parties the opportunity to ask questions.

Your challenge is to build a RESTful API for a fees workflow that uses Kotlin services to calculate, charge and record the fees for a transaction that is submitted to the public API endpoint.

Your test case should create a transaction and submit it to the fees endpoint in a similar fashion to this:

/transaction/fee	response:

{
    "transaction_id": "txn_001",
    "amount": 1000,
    "asset": "USD",
    "asset_type": "FIAT",
    "type": "Mobile Top Up",
    "state": "SETTLED - PENDING FEE",
    "created_at": "2023-08-30
15:42:17.610059"
}
	{
	    "transaction_id": "txn_001",
	    "amount": 1000,
	    "asset": "USD",
	    "type": "Mobile Top Up",
	    "fee": 1.5,
	    "rate": 0.0015,
	    "description": "Standard fee rate of
	0.15%",
	}

Your workflow should persist as the result of the fee calculations and charges. If you have time, introduce other other transaction types and implement fees for them.

Your solution should:
● Use Kotlin for the implementation of services
● Use KTOR & Koin as your IoC
● Use Restate for workflow creation and execution (durable execution platform)
● Use Gradle as your build tool
● Include a Readme
● Have unit tests - bonus points for using BDDs that describe the test case in the form of scenarios and features

If you have any questions please reach out to hoos@alsoug.com