Fx – POC

Create REST APIs to provide following functionalities:

- Add/Update/Delete forex currency pair
- Search forex currency pair. [parameter: currency] [sort by: rate]
- Get all currency pairs. [paginated]
- Add/Update/Delete bank
- Add/Update/Delete bank account
- Get all bank accounts. [paginated]
- Add/Update/Delete Fx Transaction
- Search Fx Transaction. [parameters: currency-pair id, transaction value] [sort by: currency-pair id, created-date]
- Get all transactions. [paginated]

Note:

- API should perform server-side validation.
- Exception handling.
- Use DTOs for API req/res body and model for database entity.

Model:

- Currency Pair
    - Base Currency
    - Quote Currency
    - Rate (max 2 decimal places)

    Ex: EUR/USD = 1.21

    Here EUR is base currency and USD is quote currency. 1.21 is rate of this currency pair. We can buy 1.21 USD with 1 EUR.

    All Currency-Pair should be unique. (User should not be able to add EUR/USD or USD/EUR as two different currencies).

- Bank
    - Bank Id
    - Bank Name

- Account
    - Account Id [Account No.]
    - Customer Name
    - Bank Id

- Fx Transaction
    - Account
    - Holding Currency
    - Desired Currency
    - Transaction Value

Ex: Customer wants to exchange 100 USD with INR

Holding Currency: USD

Desired Currency: INR

Transaction Value: 100