Use Case: e-Wallet System

Requirement:

* Memiliki informasi user (unique username)
* Memiliki informasi transaction
* Rules transaction:

1. Max. balance 10.000.000
2. Min. balance 10.000
3. Max. amount per transaction 1.000.000
4. Max. amount per transaction setelah isi KTP 5.000.000
5. Min. amount per transaction 10.000
6. Max. Topup 10.000.000
7. Tax per transaction 12.5% (kecuali topup)
8. Untuk bisa melakukan transaction dan topup harus menggunakan password, dimana password minimal 10 chars dengan kombinasi alphabet, number, symbol.

Jika salah password lebih dari 3 kali maka tidak bisa melakukan transaction dan topup sehingga user tersebut dibanned

* Memiliki informasi report balance change per day per user in percentage

Task:

Membuat REST API dengan spring boot dengan list API dibawah ini:

* POST /user/registration
* GET /user/{username}/getbalance
* GET /user/{username}/getinfo
* PUT /user/{username}/unban
* PUT /user/{username}/addktp
* POST /user/changepassword
* POST /transaction/create
* POST /transaction/topup
* GET /report/getreport/{date}

====================================================================

POST /user/registration

Request body

{

"username":"john doe",

"password" : "myV3rYsTr0nkP@ssW0rd"

}

response:

200 - OK

400 - username taken

400 - password format invalid

====================================================================

GET /user/{username}/getinfo

response:

200 - OK

{

"username":"john doe",

“ktp":"36745670800021324" // KTP, or null if not filled yet

}

400 - user not found

====================================================================

GET /user/{username}/getbalance

response:

200 - OK

{

“balance”:"10,000,000",

"transactionLimit" : “1,000,000”

}

400 - user not found

====================================================================

PUT /user/{username}/unban

request:

empty body

response:

200 - OK

400 - user not found

====================================================================

PUT /user/{username}/addktp

request body:

{

"ktp":"36745670800021324"

}

response:

200 - OK

400 - user not found

400 - ktp has been used by other user

====================================================================

POST /user/changepassword

request body:

{

“username”:123,

“oldPassword":"oldP@s5W0rd",

"password":"newP@s5W0rd"

}

response:

200 OK

400 - user not found

400 - format invalid

====================================================================

POST /transaction/create

request body:

{

“username”:”richard”,

“password”:”newP@s5W0rd”,

“destinationUsername”:”tulus”,

“amount”:10000

}

response:

200 - OK

{

“trxId”:123,

“originUsername”:”richard”,

“destinationUsername”:”tulus”,

“amount”:10000,

“status”:”SETTLED”

}

400 - user not found

400 - format invalid

400 - password invalid

400 - not enough balance

400 - transaction limit exceeded

400 - minimum trx amount is xxxxxxxx

400 - user banned

====================================================================

POST /transaction/topup

request body:

{

“username”:”richard”,

“password”:”P@s5W0rd”,

“amount”:10000

}

response:

200 - OK

400 - user not found

400 - max topup exceeded

400 - max balance exceeded

====================================================================

GET /report/getreport/{date}

{

"reportBalanceChangeInPercentage": [

{

"username": "tulus",

"changeInPercentage": “12,7%”,

"balanceChangeDate": "01 Jan 2022"

},

{

"username": "richard",

"changeInPercentage": “-8,5%”,

"balanceChangeDate": "01 Jan 2022"

},

{

"username": "hamal",

"changeInPercentage": “-”, // balance on previous day = 0

"balanceChangeDate": "01 Jan 2022"

}

]

}