

BANK APPLICATION SCHEMA

Project Requirement:

1. Implement Rest API in Spring Boot with JPA
2. Containerize the API using Docker
3. Deploy the container/App in AWS

Summary of Project:

Bank application helps customers with various operations listed below:

1. Opening new account
2. Manage Customer Records
3. Performing the transactions like Deposit, Withdrawal and Fund Transfer

Endpoints	HTTP Verb/Method	Description	Success Response	Error Response
/bankapi/v1/customer	POST	Add new Customer	String: Record Created Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/customer	PUT	Modify the Customer	String: Record Modified Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/customer	GET	List all Customer	Collection of Customer	
/bankapi/v1/customer/{id}	DELETE	Delete Customer by Id.		
/bankapi/v1/customer/{id}	GET	Search Customer by Id.	Customer	
/bankapi/v1/customer/login	POST	Login Customer using Email ID and Password	Customer	
/bankapi/v1/customer/getAllAccounts/{id}	GET	Collection of accounts owned by the Customer	Collection of Customer	

/bankapi/v1/customer/findAddress/{id}	GET	Find address for the given customer Id.	Address	
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Exceptions:

1. CustomerIDNotFoundException in below APIs:
 - a. /bankapi/v1/customer/{id} - GET
 - b. /bankapi/v1/customer/{id} – DELETE
 - c. /bankapi/v1/customer/findAddress/{id} - GET
2. InvalidLoginException
 - a. /bankapi/v1/customer/login – POST
3. CustomerDBEmptyException
 - a. /bankapi/v1/customer – GET (list all customers from DB, if DB is empty throw this exception)
4. AddressDetailsNotFoundException –
 - a. /bankapi/v1/customer/findAddress/{id} – GET (address not found for the given customerID)

Endpoints	HTTP Verb/Method	Description	Success Response	Error Response
/bankapi/v1/address	POST	Add new address	String: Record Created Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/address	PUT	Modify the address	String: Record Modified Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/address	GET	List all address	Collection of Address	
/bankapi/v1/address/{id}	DELETE	Delete Adress by Id.		
/bankapi/v1/address/{customerid}	GET	Search address by customerId.	Address	

Endpoints	HTTP Verb/Method	Description	Success Response	Error Response
/bankapi/v1/account	POST	Add new account	String: Record Created Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/account	PUT	Modify the account	String: Record Modified Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/account	GET	List all account	Collection of account	
/bankapi/v1/account/{id}	DELETE	Delete account by AccountNumber.		
/bankapi/v1/account/{id}	GET	Search account by Id.	account	

Endpoints	HTTP Verb/Method	Description	Success Response	Error Response
/bankapi/v1/transaction/deposit	POST	Pass Account Number and Amount to deposit	String: Record Created Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/transaction/withdraw	POST	Pass Account Number and Amount to withdraw	String: Record Modified Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/transaction/fundtransfer	POST	Pass 2 account object with amount to transfer	String: Record Modified Successfully	{"timeStamp":"2023-06-08", "message": "Validation failed ..."}
/bankapi/v1/transaction/summary	GET	Give fromDate and toDate to display all transactions	Collection of Transaction	

		happened within the Date		
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Exception

1. InSufficientBalanceException
 - a. /bankapi/v1/transaction/deposit
 - b. /bankapi/v1/transaction/withdraw
 - c. /bankapi/v1/transaction/fundtransfer