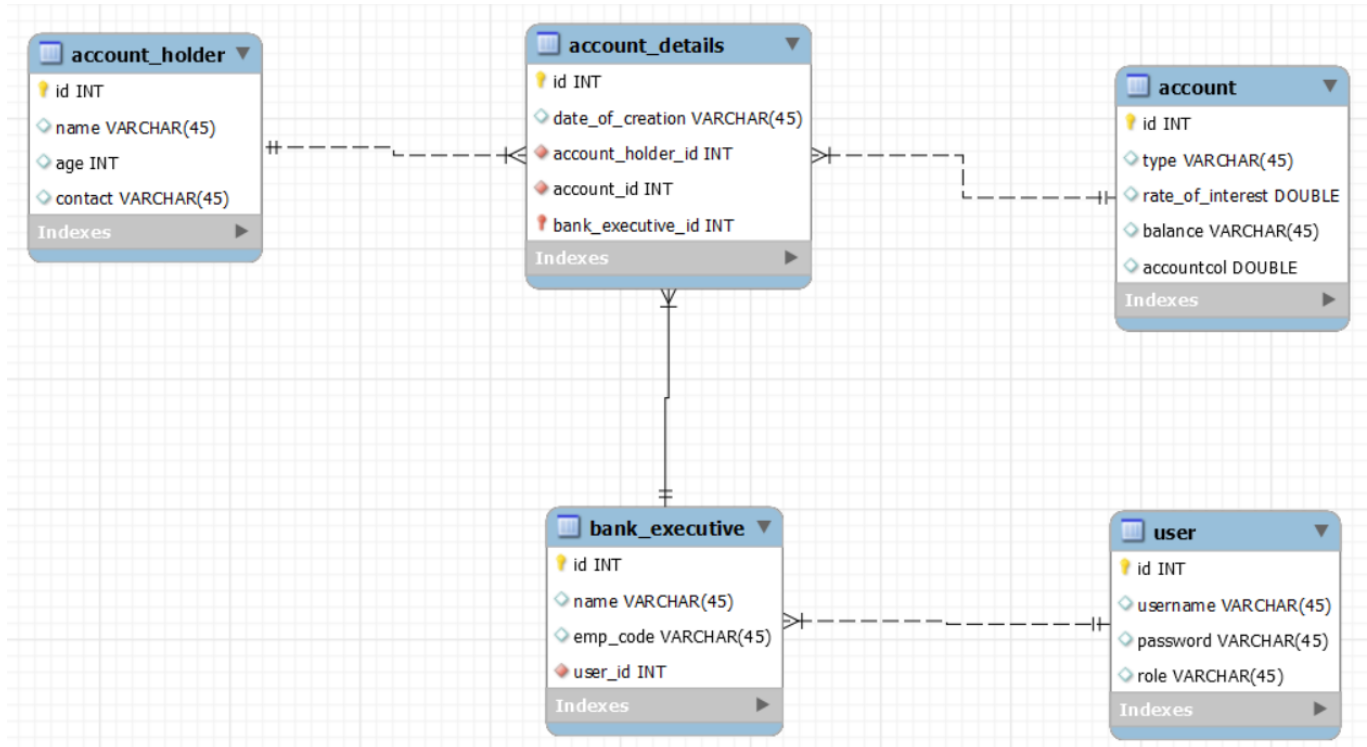


Coding Challenge

Total Marks: 80 Passing Marks: 50

Consider the following ER of a Banking Application.



Based on the Foreign Keys and Composite keys in the above diagram, create the model classes and establish relationships. **(Marks: 8)**

Create following REST APIs:

- POST: account_holder** : Read details as Request Body from postman
Marks: 3
- POST: account**: Read details as Request Body from postman
Marks: 3
- POST: bank Executive with User info**: Read details as Request Body from postman
Marks: 3
- POST account_details** : Read details as Request Body from postman as follows:

```
{
  ... "accountHolderId": 1,
  ... "accountId": 1,
  ... "bankExecutiveId": 1
}
```

Note: dateOfCreation should be current date.

Marks: 10

- e. **GET: All account holders having account type as 'SAVINGS/BUSINESS/DMAT'.** Take account type as Path Variable. Do not hard code the Type. Read it as path variable.

Marks: 6

- f. **PUT: Update account balance.** Take accountId and new balance as request body as follows:

```
{
  "accountId": 1,
  "balance": 7500
}
```

Marks: 5

- g. **GET: Display all account_holders whose account where created by given executive.** Take executive ID as path variable.

Marks: 5

- h. **Create a Custom Exception class, InvalidIdException and use it to validate ids passed as path variables in APIs.**

Marks: 7

- i. **Technical Coding Live Demo: Marks 30**

Assumptions:

- Create enum AccountType having constants: SAVINGS/BUSINESS/DMAT
- Rate of Interest for SAVINGS: 6%, CURRENT: 0%, DMAT: 0%

Use following sample data for POST API calls from Postman.

Account Table:

```
mysql> select * from account;
```

id	type	rate_of_interest	balance
1	SAVINGS	6	5000
2	SAVINGS	6	10000
3	BUSINESS	0	50000
4	DMAT	0	100000

Account_holder:

id	name	age	contact
1	harry potter	19	8875646375
2	ronald weasley	21	4489763567
3	hermione granger	20	9989876565
4	draco malfoy	22	9866237864

User table:

id	username	password	role
1	albus@gmail.com	albus@123	EXECUTIVE
2	snape@gmail.com	snape@123	EXECUTIVE

Bank_executive:

id	name	emp_code	user_id
1	albus dumbledore	HEX3345	1
2	Severus Snape	HEX3342	2

Account_details table:

id	date_of_creation	account_holder_id	account_id	bank_executive_id
1	2023-7-12	1	1	1
2	2023-8-11	2	2	1
3	2023-6-19	3	3	2
4	2023-8-25	4	4	2