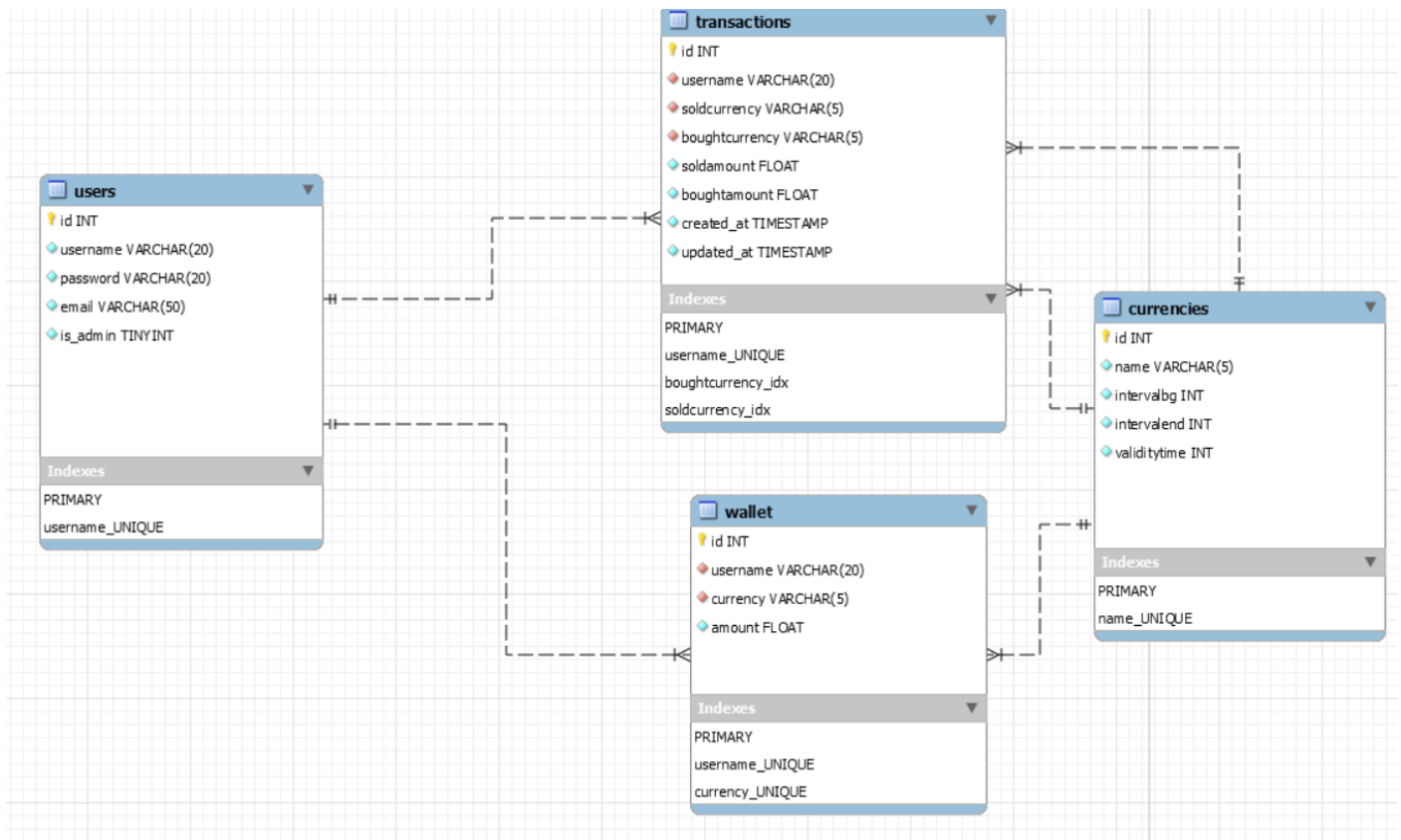# SpeculAPP Arhitecture (B)

1. **Class Diagram**

2. Database Schema (SQL)

transactions
- id INT
- username VARCHAR(20)
- soldcurrency VARCHAR(5)
- boughtcurrency VARCHAR(5)
- soldamount FLOAT
- boughtamount FLOAT
- created_at TIMESTAMP
- updated_at TIMESTAMP

Indexes
- PRIMARY
- username_UNIQUE
- boughtcurrency_idx
- soldcurrency_idx

users
- id INT
- username VARCHAR(20)
- password VARCHAR(20)
- email VARCHAR(50)
- is_admin TINYINT

Indexes
- PRIMARY
- username_UNIQUE

currencies
- id INT
- name VARCHAR(5)
- intervalbg INT
- intervalend INT
- validitytime INT

Indexes
- PRIMARY
- name_UNIQUE

wallet
- id INT
- username VARCHAR(20)
- currency VARCHAR(5)
- amount FLOAT

Indexes
- PRIMARY
- username_UNIQUE
- currency_UNIQUE

3. Use Cases

SpeculAPP

User 1..*

visit homepage

register

Add required info

<<extend>>

authentification

Database

<<include>>

<<include>>

help page

exchange page

portofolio page

currency page

<<include>>

virtual wallet

<<include>>

SpeculAPP

Admin 1

visit homepage

authentification

admin panel

<<include>>

<<extend>>

<<extend>>

Add win/lose limits

<<include>>

Database

Add currency

<<include>>