

address(<u>address_id</u>, house_number, street, zip_code, city, state, country) employee(<u>employee id</u>, position, ssn, fname, sname, salary, address_id, branch_id) customer(<u>customer_id</u>, fname, sname, ssn, address_id) branch(<u>branch_id</u>) account_type(<u>type</u>, interest_rate, required_deposit, overdraft_fee, transaction_fee) account(<u>account_num</u>, account_name, balance, branch_id, type, customer_id) transaction(<u>trans_id</u>, amount, description, date, type, account_num)

located(address_id, branch_id)

Banking Business Rules:

- 1. An employee must live at an address and it is possible for multiple employees in the database to live at the same address.
- 2. The database keeps track of an address' house number, street, zip code, city, state, and country.
- 3. Employees must work at a branch which is identified through an ID number.
- 4. A branch must be located at an address and only one branch can exist at that location.
- 5. An employee is identified through an ID number, but the database keeps track of an employee's position, social security number, first and last name, and salary.
- 6. A customer is identified through an ID, first and last name, and social security number.
- 7. A customer must live at an address to be a part of the banking system.
- 8. An account is home to a branch and is of a specific bank account type. The interest rate, required deposit amount, overdraft fee, and transaction fee must be tracked for each account type.
- 9. An account must be owned by only one customer, but a single customer may own multiple accounts.
- 10. An account comes with an account number which serves as the identifier for the account, as well as an account name and balance.
- 11. An account can do multiple transactions over its lifetime. Each transaction must belong to an account and specifies an amount, description, date, and transaction type.