Banking System Function Specification

Function	Description
Create a employe	Input: employee name, Processing: 1. Automatically generate employe's system credential, including 'login' and 'password', as follows: a. System generate a sequence number, for example, 789 b. Login will be set as: 'a0789' c. Password is set to 789 (Note: password can be changed via method later) 2. Create a new record and save the relevant information in table employee Output: An instance of employee class or None if creation failed
Create a customer (Customer Manager)	Input: Name, Address Processing: 1. Make sure (Name, address) is not duplicate with existing customer 2. System generates an customer id 3. Create a new record and save the relevant information in table customer. Output Display customer id or error message
Create checking or saving account (Account Manager)	Input: customer_id, balance, interest_rate Function: 1. System generate account id (using sequence) 2. Generate account_no based on account_id: Checking accounts: account_no = 20000+ account_idw Savings :啊count： account_no = 30000 + account_id 3. Set account type as 'checking' or 'savings' 4. Create a new record and save the relevant information in table bankaccount 5. Setup customer, account association：create a record with reelevant information in table ass_customer_account Output: Display account no or error message
Withdraw from account (Transaction Manager)	Input: account_no, amount Function: 1. Make sure account_no existing and amount >0 2. Withdraw money from the account (update bankaccount table by modifying account balance) . If amount>account balance, the actual amount is the account balance. 3. Create a record in in table acc_transaction: type = 'withdraw' Output: confirmation with actual amount withdrawn or error message

Deposit to account (Transaction Manager)	Input: account_no, amount Function: 1. Make sure account_no existing and amount >0 2. Deposit money to account – update bankaccount table by modifying account balance 3. Create a transaction record in table acc_transaction: type = 'deposit' Output: confirmation with amount deposited or error message
Credit Card Approval (Credit Card Manager)	Input: Queue of applicants, which has customer id of the applicants. Function: 1. Calculate each applicant's total savings account balance. If it is equal or greater than 2000, then approve the application, otherwise reject the application. 2. Set the queue's status to 'rejected' or 'approved' and update other relevant information 3. For each approved application, call 'credit card generation' method to create a credit card. Update application queue with credit card no Output: Populate relevant fields of application queue
Credit Card Generation (Credit Card Manager)	(This is a system function) Input: customer id of card owner, Card holder name, employee id (default to None), expiration_date (default to None) credit limit (default to 1000) Function: 1. System generate cardid (using sequence) 2. Bank name will obtained by calling method Bank.get_name() 3. Credit Card no will be automatically generated as follows 88000000 + sequence So it will be 8 digits and start with '88' 4. Credit limit default to 1000 5. If the expiration_dat is not provided (provided as None), it will be today after one year. Output: an instance of new card or None, if creation fails