Transaction [3522] Assignment 1, UML time: datetime - amount: float Batchansaa Batzorig (A01252194) budget_category: int **Jacob Seol** (A01002532) - merchant: str Jonghoon Jang (A01240621) bank_num: str **Subin Moon** (A01238145) __str__() TransactionCatalogue transactions: list(Transaction) + get_transactions(): list(Transaction) + add_transaction(user: User) + get_user_transactions(bank_account_num: str): list(Transaction) + print_user_transactions(bank_account_num: str) - is_account_lockout_threshold_over(user: User, bank_acocunt_num: str) FAM - MAIN_MENU - ACCOUNT_MENU user_list: list(User) <<BankAccount>> BudgetCatalogue <<Budget>> - bank_account_catalogue: BankAccountCatalogu BankAccountCatalogue bank_acc_num: str Chequing budget_type_map: dict - spent: float - bank_accounts: list(BankAccount) - budget_catalogue: BudgetCatalogue bank_name: str __repr__() budgets: list(Budget) - limit: float - transaction_catalogue: TransactionCatalogue bank_bal: float + get_bank_accounts(): list(BankAccount) get_budgets(): list(Budget) - is_locked: bool - bank_account_number: str + display_main_menu() + get_budgets_by_account_num(bank_account_num: str): list(Budget) num_of_transaction: int add_user(user: User) + is_users_account_locked(bank_account_number: str): bool lock_account() + add_spent(amount: float) + filter_budget_by_account_and_category(bank_account_num: str): Budget - select_user(): User or None - get_one_month_ago(): time is_balance_negative() + add_bank_account(bank_account: BankAccount) + is_budget_exceeded() + adjust_budget_details(bank_account_number: str, budget_type: int, amount: float) + display_account_menu(user: User) - is_over_limit(transaction_catalogue) - is_over_limit(transaction_catalogue) + remove_bank_account(bank_account_number: str) · __str__() - add_budget(budget: Budget) view_budget_option(user: User) __repr__() __repr__() - record_transaction_option(user: User) view_transactions_by_budget(user: User) - view_bank_account_detail_option(user: User) ClothingAccessories Miscellaneous GamesEntertainment Eating Out <<User>> Register - name: str register_user(bank_account_catalogue: BankAccountCatalogue, budget_catalogue: BudgetCatalogue) dob: datetime - bank_account_number: str - set_user_type(bank_account_number: str): User warning_threshold: float - set_user_bank_account(bank_account_catalogue: BankAccountCatalogue) - set_user_budgets(budget_catalogue: BudgetCatalogue, user_bank_acocunt: str) + is_over_account_lockout_threshold(num_of_locked_budget: int, num_budget_types: int): bool + is_over_lockout_threshold(limit: float, spent: float): bool - eligible_for_angel(name: str, dob: datetime, bank_account_num: str): User or None + is_lockout_action_required(): bool - get_age(dob: datetime): int + lockout_msg() + is_exceed_warning_threshold(limit: float, spent: float) + warning_msg() __str__() BankAccountType (Enum) BudgetType (Enum) UserType (Enum) CHEQUING GAMES_ENTERTAINMENT REBEL SAVING CLOTHING_ACCESSORIES **ANGEL** EATING_OUT TROUBLEMAKER MISCELLANEOUS TroubleMaker Rebel Angel