Queen Mary University of London
School of Electronic Engineering and Computer Science

EBU6304: Software Engineering

Lab 1: Java Inheritance and Polymorphism Revision

Exercise 1:
Recall the BankAccount class you studied in your year 2 in EBU4201 Java Programming module. (please refer to the extracted EBU4201 lecture notes on QM+). Write the BankAccount class, compile and run it.

Exercise 2:
Based on the basic BankAccount class, implement a CurrentAccount class. Descriptions:

A Bank Account has account number, account name and balance. Customers can pay in to the account, withdraw money from the account and check balance. A Current Account is a type of Bank Account that has an overdraft limit. Default overdraft limit is 500 yuan. Hint: use Inheritance.

Exercise 3:
Once you have both Bank Account and Current Account classes, implement a Bank class. Descriptions:

A Bank is a collection of accounts (can be normal Bank Account or Current Account). It can open new accounts, close accounts and operate on each account (such as deposit, withdraw and check balance). Current Accounts get a message if they are in overdraft state (balance<0). Hint: use Polymorphism.