Simple simulated mobile banking App

* The purpose of making this simulated app is totally out of interests on mobile software development and the wish to implementing known knowledge from college into real practice.
* This simulated mobile banking app mocks several basic services provided by mobile banking app on the market, such as account register and login, transfer and payee maintenance.
* The development process includes the development of the application on Android platform, server code and database code.
* The development process goes through four parts:

1: clients provide their demands;

2: analysis of the demands from clients;

3: software design which includes two sub parts, overall design and detailed design.

4: software development.

# Demo

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| Interface/View | Interface description |
| *main* interface | User can press Account Number radioButton to switch to account number login option;  User can press passwordToggle button to switch between hidden or revealed password;  🡨used for testing |
| Android widgets/view used:  ViewText/EditText;  RadioButton, RadioGroup;  TextInputEditText: passwordToggle;  Button | |
| related views | |
| Press SIGN IN button | Goto Interface [*signIn*](#_signIn_interface) |
| Press LOG IN button | Goto Interface [*accounts list*](#_Accounts_list_interface) |

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| Interface/View | Interface description |
| *signIn* interface | User enters National Identity Number (e.g. ID),  bank account number which the client owns, and withdrawal password of the account entered.  Press Button VALIDATE to verify the identity (making sure the user has already owned a bank account in this bank so that he can request to open mobile banking service) |
| Android widgets/view used:  TextInputEditText;  Button | |
| related views | |
| Press VALIDATE button | Goto Interface [*register*](#_register_interface) |

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| Interface/View | Interface description |
| *register* interface | Once the user is verified to be a legit bank account owner, he is required to fill personal info to finish mobile banking registration.  If the user finishes the registration, the bank account number which the user entered in *signIn* interface will be automatically linked to this mobile banking registration. The user can manage this account through mobile bank app. |
| Android widgets/view used:  ScrollView  RadioButton, RadioGroup  TextInputEditText;  Button | |

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| Interface/View | Interface description |
| Accounts list interface | If the user logs in successfully, it will bring him to this interface which shows the bank accounts which have been linked to this mobile banking registration.  This is a drawer layout. The user can access the drawer by clicking the hamburger button. |
| Android widgets/view used:  Drawer Layout  RecyclerView  CardView | |
| related views | |
| Press Hamburger button | Goto Interface [*drawer*](#_drawer_interface) |
| Press any CardView (any account linked) | Goto Interface [*Account Detail*](#_Account_Detail_interface) |

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| Interface/View | Interface description |
| *drawer* interface | The user can navigate to personal profile page by clicking the header of the navigation drawer (the green part), to accounts list, bank transfer, add more accounts, payee maintenance, settings and log out by clicking the respective menu option. New content will be loaded into the existing activity by fragment transaction. |
| Android widgets/view used:  Navigation Drawer | |
| related views | |
| Press Header of the drawer (green part) | Goto Interface [*Personal Profile*](#_Personal_Profile_interface) |
| Press Accounts menu button | Goto Interface [*Accounts list*](#_Accounts_list_interface) |
| Press Transfer menu button | Goto Interface [Transfer](#_Transfer_interface) |
| Press Add more Accounts menu button | Goto Interface [*Add more Accounts*](#_Add_more_Accounts) |
| Press Payee Maintenance menu button | Goto Interface [*Payee Maintenance*](#_Payee_maintenance_interface) |
| Press Settings menu button | Goto Interface [*Settings*](#_Settings_interface) |
| Press Log out menu button | Goto Interface [*Log out*](#_Log_out_interface) |

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| Interface/View | Interface description |
| Account Detail interface | Account detail shows recent transaction. The user can select transaction history in today, one week, one month and a customized date range.  Transaction history will load and display 10 transaction detail at a time. The user needs to pull up to request to load more.  The user can initiate a new transfer, of which the payment account is this selected account by pressing the Transfer button under the cardView (blue part). |
| Android widgets/view used:  TabLayout, RecyclerView, SwipeRefreshLayout, AlertDialog, DatePicker | |

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| Related views | | | | |
| Press Transfer button | Goto Interface [*Transfer*](#_Transfer_interface) | | | |
| Press Customize tab | Press any transaction detail  Redo button will appear only when the user presses a transaction detail of which Borrowing sign is –(Borrow).  By pressing Redo, app will navigate to Interface *Transfer* with everything filled up with same text. The next picture shows how it looks. | | | |
| Interface/View | | | Interface description | |
| *Transfer* interface | | | User has to select a payment account, recipient account, name of the recipient account, transaction amount and optionally transaction memo/summary. | |
| Android widgets/view used:  TextInputEditText, BottomSheetDialogFragment  RecyclerView, Button | | | | |
| Related views | | | | |
| Press Select A PAYMENT ACCOUNT button | | Press select Recipient Account button | | Press NEXT |

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| Interface/View | Interface description |
| Add more Accounts interface | User enters bank account number which clients owns and withdrawal password of the account entered.  Press Button VALIDATE to verify the identity (making sure the user who is using the device is the owner of this bank account) |
| Android widgets/view used:  TextInputEditText;  Button | |

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| Interface/View | Interface description | | |
| Payee maintenance interface | User can add, delete and edit payees/recipients in this page. | | |
| Android widgets/view used:  RecyclerView  AlertDialog | | | |
| Related views | | | |
| Press ADD A NEW PAYEE button | | Press Edit button of any payee | Press X(delete) of any payee |
| Interface/View | Interface description | | |
| *Settings* interface | User can change login password and transaction password in Settings | | |
| Android widgets/view used:  Button | | | |
| Related views | | | |
| Press PASSWORD RESET button | | Press TRANSACTION PASSWORD RESET button | |

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| Interface/View | | Interface description |
| *Log out* interface | | Ask the user whether he really wants to log out.  If yes, current activity will be destroyed, and main/login interface/activity will be started. |
| Android widgets/view used:  AlertDialog | | |
| Related views | | |
| Press OK | Goto Interface [*main*](#_main_interface) | |

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| Interface/View | Interface description |
| *Personal Profile* interface | This interface shows user’s personal info.  The user can press EDIT to edit some of the personal profile. |
| Android widgets/view used:  Button | |
| Related views | |
| Press EDIT button | |