

Android InsecureBankv2 Usage Guide

Author Name	Dinesh Shetty
Email ID	dinezh.shetty@gmail.com
GitHub Link	https://github.com/dineshshetty/Android
	- InsecureBankv2

Twitter <https://twitter.com/Din3zh>

Usage Guide

This document is divided into 3 parts:

1. Setting up Genymotion
2. Running the back-end AndroLab server
3. Installing and running the InsecureBankv2 application – via APK file

Setting up Genymotion

In order to test the Android InsecureBankv2 application, we will first need to create a virtual device. For this, we'll use Genymotion.

- a) Create an account on <https://www.genymotion.com/account/create/>. For demo purpose, you can set the Usage type as "Development and Testing". Set the Company Type as "Others". Whenever prompted for license type, select "Personal License". Make sure to click on the verification email sent to the email address. When using Genymotion in enterprise envt make sure to get an appropriate license.
- b) Ensure that the latest version of VirtualBox is installed. Refer to https://docs.genymotion.com/latest/Content/01_Get_Started/Requirements.htm#software to download the latest setup binary.
- c) Download and install the latest version of Genymotion from <https://www.genymotion.com/download>.
- d) Launch Genymotion. Select "yes", when prompted to add a new virtual device. Click Sign-in and log in to Genymotion with the previously created account.
- e) Once successfully logged in to Genymotion, set up a new Android virtual Device for "Google Nexus 5X - 8.0 - API 26 - 1080x1920".
- f) Start the AVD device on Genymotion and make sure it is working.

Now, we need to install some additional tools to make sure you can connect to the emulator from your laptop. Steps are different for Mac/Windows/Linux Users.

Mac Users Only:

```
brew cask install android-platform-tools
```

Windows Users Only:

Download the file <https://dl.google.com/android/repository/platform-tools-latest-windows.zip>. Extract the file and add this folder "platform-tools" to

your environment path for faster access (or you can just navigate to this path every time we talk about using the “adb” command.

Linux Users Only:

```
sudo apt install android-tools-adb
```

Running the back-end AndroLab server

Before proceeding to install the InsecureBankv2 application on the newly created AVD, ensure that the back-end server is running properly. The back-end for the InsecureBankv2 application is a simple python server running simple Flask and CherryPy web frameworks.

Step 1: Download the latest version of InsecureBankv2 from GitHub using the below mentioned command on the terminal.

```
git clone https://github.com/dineshshetty/Android-InsecureBankv2.git
```

Step 2: The server component can be found in the *AndroLabServer* folder in the InsecureBankv2 project source folder.

Step 3: Install the libraries using the command:

```
pip install -r requirements.txt
```

Step 4: Navigate to the *AndroLabServer* folder in the downloaded InsecureBankv2 project source code and use the below command to run the HTTP server on the default port 8888:

```
python app.py
```

The below mentioned command can be used to view the available arguments for the AndroLab server component.

```
python app.py --help
```

Step 5: Now, we need to setup our configuration to make sure that InsecureBankv2 can talk to this server. To do this open VirtualBox and right click the created AVD > Settings > Network. For Adapter 1 set up "Bridged Adapter". For Adapter 2 setup "NAT".

Installing and running the InsecureBankv2 application – via APK file

Once the AVD is set up and running in Genymotion, we can proceed to install InsecureBankv2 on it. Genymotion helps *emulate* and *test* the behavior and working of the application in a virtualized environment without the need of buying expensive Android devices.

Step 1: Download the latest version of InsecureBankv2 from GitHub using the below mentioned command on the terminal.

```
git clone https://github.com/dineshshetty/Android-InsecureBankv2.git
```

Step 2: Using the adb utility in the Android SDK platform-tools folder, the InsecureBankv2.apk file from the downloaded project can be installed on to the emulator.

```
adb install InsecureBankv2.apk
```

Step 3: You can now launch the InsecureBankv2 application from the Android app-menu.

Step 4: In the Android emulator, click the *menu* button and select the *Preferences* menu.

Step 5: Configure the Android emulator to point to the IP address and port number of the machine on which the AndroLab server is running. Click *Submit* to continue.

Note: In the case of Android emulator, *10.0.2.2* points to the base machine on which the emulator is running. Alternatively use ``ifconfig vboxnet0`` to get the IP address.

Step 6: Log in to the application using either of the below mentioned credentials:

- **dinesh/Dinesh@123\$**
- **jack/Jack@123\$**

Step 7: When correct set of credentials is entered, the click of the *Login* button redirects the user to the next screen.