## Lab5

Name: 黎诗龙

SID:11811407

## 2

file name:

LoginActivity.smali

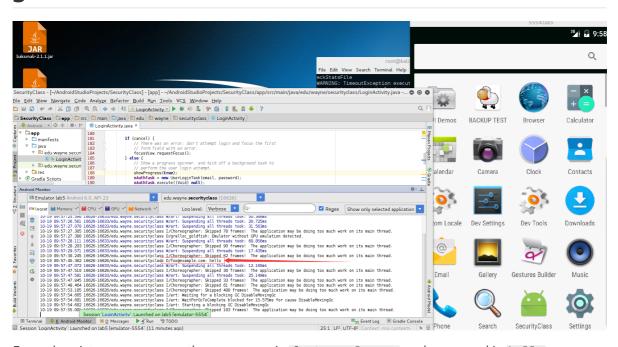
smali method:

```
.line 188
:cond_73
invoke-direct {p0, v7}, Ledu/wayne/securityclass/LoginActivity;->showProgress(Z)V
invoke-static {v1, v3}, Landroid/util/Log;->d(Ljava/lang/String;Ljava/lang/String;)I
.line 189
new-instance v5, Ledu/wayne/securityclass/LoginActivity$UserLoginTask;
```

ladd invoke-static {v1, v3},Landroid/util/Log;>d(Ljava/lang/String;Ljava/lang/String;)I into it.

invoke-static is the method of Log.d(xxx,xxx) in small.

3



From the picture we can see the username is foo@example.com and password is hello.

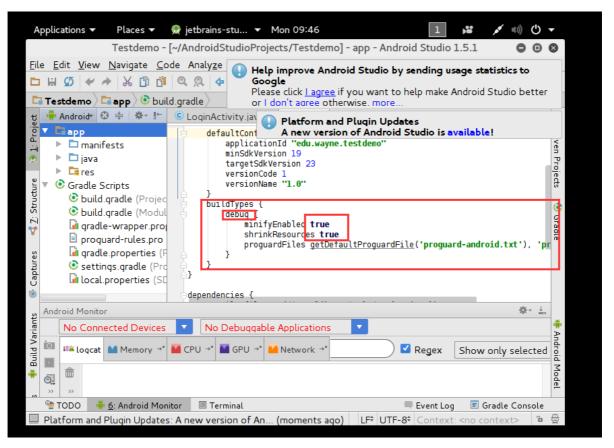
4

a

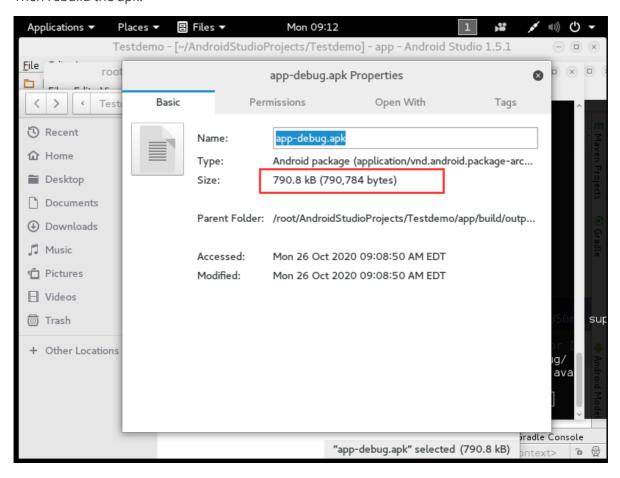
ProGuard

I modify the configuration in the build.gradle(Module....)

Add this into it:

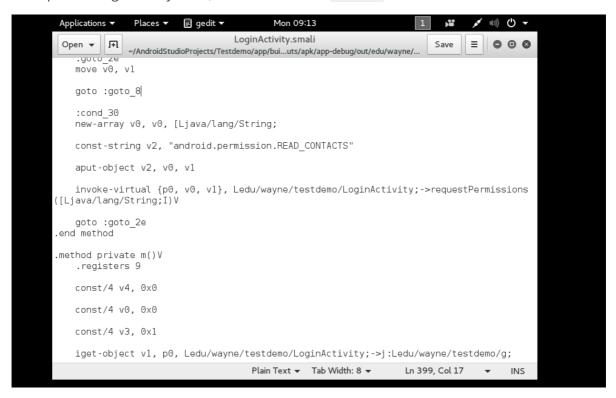


Then rebuild the apk:

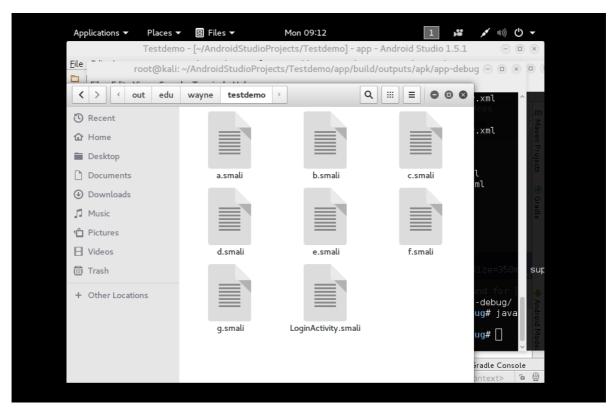


From the picture we can see that app-debug apk is 790.8KB, while previously it is around 1.43MB.

And open the LoginActivity.small, we cannot see the .1ine x.



And in the directory we can see it has been obfuscated:

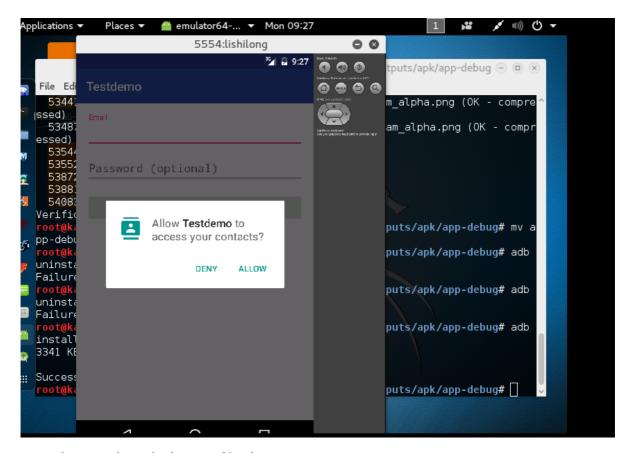


Then I continue the repackaging process:

```
## / □ □ ·
Applications ▼
              Places ▼

∑ Terminal ▼

                                           Mon 09:27
            root@kali: ~/AndroidStudioProjects/Testdemo/app/build/outputs/apk/app-debug 🖨 🧿 🗴
   File Edit View Search Terminal Help
    534415 res/drawable-xxxhdpi-v4/abc_ic_menu_copy_mtrl_am_alpha.png (OK - compre
  (ssed)
    534872 res/drawable-xxxhdpi-v4/abc_ic_menu_paste_mtrl_am_alpha.png (OK - compr
  essed)
     535440 res/mipmap-hdpi-v4/ (OK)
    535528 res/mipmap-hdpi-v4/ic_launcher.png (OK)
538724 res/mipmap-mdpi-v4/ (OK)
    538812 res/mipmap-mdpi-v4/ic_launcher.png (OK)
    540836 resources.arsc (OK - compressed)
   Verification succesful
           i:~/AndroidStudioProjects/Testdemo/app/build/outputs/apk/app-debug# mv a
  pp-debug-aligned.apk app-debug.apk
            :~/AndroidStudioProjects/Testdemo/app/build/outputs/apk/app-debug# adb
   uninstall edu.wayne.Testdemo
  Failure [DELETE_FAILED_INTERNAL_ERROR]
            :~/AndroidStudioProjects/Testdemo/app/build/outputs/apk/app-debug# adb
  uninstall edu.wayne.Testdemo
Failure [DELETE_FAILED_INTERNAL_ERROR]
            i:~/AndroidStudioProjects/Testdemo/app/build/outputs/apk/app-debug# adb
  install app-debug.apk
  3341 KB/s (633361 bytes in 0.185s)
pkg: /data/local/tmp/app-debug.apk
   root@kali:~/AndroidStudioProjects/Testdemo/app/build/outputs/apk/app-debug#
```



It can be repackaged. The proof is above.