



МИНОБРНАУКИ РОССИИ

Федеральное государственное бюджетное образовательное учреждение
высшего образования

«МИРЭА – Российский технологический университет»

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**Кафедра Математического обеспечения и стандартизации
информационных технологий**

Практическая работа №1

**По дисциплине: «Архитектура операционных систем мобильных
устройств»**

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Москва, 2024

```
PS C:\Users\StudentMOSIT> adb devices
List of devices attached
c86314725291    device
```

Рис.1 Выводим информацию о подключенном устройстве через ADB

```
PS C:\Users\StudentMOSIT> adb logcat
----- beginning of system
01-01 12:00:05.686 3028 3028 I void : Vold 3.0 (the awakening) firing up
01-01 12:00:05.687 3028 3028 V void : Detected support for: ext4 vfat nefs exfat
01-01 12:00:05.696 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop3: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop8: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop1: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop5: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop2: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop4: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop7: No such device or address
01-01 12:00:05.697 3028 3028 W void : Failed to LOOP_GET_STATUS64 /dev/block/loop6: No such device or address
01-01 12:00:05.702 3028 3028 D void : VolNativeService::start() completed OK
01-01 12:00:05.715 3028 3028 D void : e4crypt_init_user0
01-01 12:00:05.715 3028 3028 D void : e4crypt_prepare_user_storage for volume null, user 0, serial 0, flags 1
01-01 12:00:05.715 3028 3028 D void : Preparing: /data/system/users/0
01-01 12:00:05.716 3028 3028 D void : Preparing: /data/misc/profiles/cur/0
01-01 12:00:05.716 3028 3028 D void : Preparing: /data/system_de/0
01-01 12:00:05.717 3028 3028 D void : Preparing: /data/misc_de/0
01-01 12:00:05.717 3028 3028 D void : Preparing: /data/vendor_de/0
01-01 12:00:05.718 3028 3028 V void : Preparing: /data/user_de/0
01-01 12:00:05.718 3028 3028 V void : /system/bin/vold.prepare_subdirs
01-01 12:00:05.718 3028 3028 V void : prepare
01-01 12:00:05.718 3028 3028 V void : 0
01-01 12:00:05.718 3028 3028 V void : 1
01-01 12:00:05.745 3028 3028 D void : e4crypt_unlock_user_key 0 serial=0 token_present=0
01-01 12:00:06.463 3109 3109 I android.hardware.wifi@1.0-service: Wifi Hal is booting up...
01-01 12:00:06.881 3172 3172 I installld: installld firing up
01-01 12:00:07.030 3186 3186 I wificond: wificond 15 starting up...
01-01 12:00:07.618 3184 3264 W storaged: health: invalid battery status
01-01 12:00:08.184 3080 3080 D Zygote32Timing: PostZygoteInitGC took to complete: 14ms
01-01 12:00:08.184 3080 3080 D Zygote32Timing: ZygoteInit took to complete: 15ms
01-01 12:00:08.235 3079 3079 D Zygote64Timing: BeginIcuCachePinning took to complete: 64ms
01-01 12:00:09.211 3079 3079 D Zygote64Timing: PreloadClasses took to complete: 976ms
01-01 12:00:09.454 3079 3079 D Zygote64Timing: PreloadResources took to complete: 244ms
01-01 12:00:09.535 3079 3079 D Zygote64Timing: ZygotePreload took to complete: 1365ms
01-01 12:00:09.597 3079 3079 D Zygote64Timing: PostZygoteInitGC took to complete: 62ms
01-01 12:00:09.597 3079 3079 D Zygote64Timing: ZygoteInit took to complete: 1429ms
01-01 12:00:09.777 3342 3342 I chatty : uid=1000(system) system_server expire 186 lines
01-01 12:00:10.021 3342 3355 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:10.111 3342 3361 I chatty : uid=1000(system) batterystats-wo expire 6 lines
01-01 12:00:10.281 3342 3365 I chatty : uid=1000(system) android.display expire 5 lines
01-01 12:00:10.982 3342 3394 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:11.065 3342 3342 I chatty : uid=1000(system) system_server expire 73 lines
01-01 12:00:11.084 3184 3264 I storaged: storaged: Start
01-01 12:00:11.084 3184 3264 E storaged: getDiskStats: failed with result NOT_SUPPORTED and size 0
01-01 12:00:11.088 3342 3402 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:11.091 3342 3403 I chatty : uid=1000(system) system_server expire 5 lines
01-01 12:00:11.144 3342 3355 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:11.209 3080 3080 D ZygoteInitTiming_lazy: BeginIcuCachePinning took to complete: 30ms
01-01 12:00:11.337 3342 3365 I chatty : uid=1000(system) android.display expire 1 line
01-01 12:00:11.498 3342 3412 I chatty : uid=1000(system) system_server expire 76 lines
01-01 12:00:11.498 3342 3402 I chatty : uid=1000(system) system_server expire 3 lines
01-01 12:00:11.546 3342 3419 I chatty : uid=1000(system) NetworkManager expire 2 lines
01-01 12:00:11.546 3342 3420 I chatty : uid=1000(system) StorageManagerS expire 3 lines
01-01 12:00:11.661 3342 3420 I chatty : uid=1000(system) StorageManagerS expire 3 lines
01-01 12:00:11.665 3028 3028 E void : Failed to read field SystemLocale: No such file or directory
01-01 12:00:11.668 3342 3403 I chatty : uid=1000(system) system_server expire 4 lines
01-01 12:00:11.720 3342 3421 I chatty : uid=1000(system) NetdConnector expire 1 line
01-01 12:00:11.732 3342 3342 I chatty : uid=1000(system) system_server expire 71 lines
01-01 12:00:11.732 3342 3394 I chatty : uid=1000(system) system_server expire 3 lines
01-01 12:00:11.810 3342 3417 I chatty : uid=1000(system) InputDispatcher expire 2 lines
01-01 12:00:12.157 3342 3342 I chatty : uid=1000(system) system_server expire 68 lines
01-01 12:00:12.161 3342 3404 I chatty : uid=1000(system) HwBinder:3342_1 expire 1 line
01-01 12:00:12.224 3342 3402 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:12.253 3342 3342 I chatty : uid=1000(system) system_server expire 113 lines
01-01 12:00:12.308 3080 3080 D ZygoteInitTiming_lazy: PreloadClasses took to complete: 1098ms
01-01 12:00:12.426 3080 3080 D ZygoteInitTiming_lazy: PreloadResources took to complete: 118ms
01-01 12:00:12.486 3342 3403 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:12.541 3342 3411 I chatty : uid=1000(system) ConnectivitySer expire 1 line
01-01 12:00:12.589 3342 3367 I chatty : uid=1000(system) PowerManagerSer expire 1 line
01-01 12:00:12.644 3342 3355 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:12.692 3342 3364 I chatty : uid=1000(system) android.io expire 1 line
01-01 12:00:12.708 3342 3359 I chatty : uid=1000(system) ActivityManager expire 1 line
01-01 12:00:12.711 3342 3420 I chatty : uid=1000(system) system_server expire 2 lines
01-01 12:00:12.771 3028 3028 D void : e4crypt_unlock_user_key 0 serial=0 token_present=0
01-01 12:00:12.773 3342 3357 I chatty : uid=1000(system) ActivityManager expire 1 line
01-01 12:00:12.773 3342 3357 I chatty : uid=1000(system) ActivityManager expire 1 line
01-01 12:00:12.781 3342 3443 I chatty : uid=1000(system) HwBinder:3342_2 expire 1 line
01-01 12:00:12.781 3028 3028 V void : Waiting for FUSE to spin up...
01-01 12:00:12.781 3342 3394 I chatty : uid=1000(system) system_server expire 1 line
01-01 12:00:12.782 3342 3394 I SystemServer: WebViewFactoryPreparation
```

Рис.2 Выводим логи подключенного устройства через ADB

```
PS C:\Users\StudentMOSIT> adb shell ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
2: eth0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc pfifo_fast state DOWN group default qlen 1000
    link/ether c8:63:14:72:52:91 brd ff:ff:ff:ff:ff:ff
3: ip_vti0@NONE: <NOARP> mtu 1480 qdisc noop state DOWN group default qlen 1
    link/ipip 0.0.0.0 brd 0.0.0.0
4: ip6_vti0@NONE: <NOARP> mtu 1500 qdisc noop state DOWN group default qlen 1
    link/tunnel6 :: brd ::
5: ip6tnl0@NONE: <NOARP> mtu 1452 qdisc noop state DOWN group default qlen 1
    link/tunnel6 :: brd ::
6: wlan0: <NO-CARRIER,BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state DORMANT group default qlen 1000
    link/ether 20:50:e7:6a:ba:cc brd ff:ff:ff:ff:ff:ff
7: wlan1: <BROADCAST,MULTICAST> mtu 1500 qdisc noop state DOWN group default qlen 1000
    link/ether 22:50:e7:6a:ba:cc brd ff:ff:ff:ff:ff:ff
PS C:\Users\StudentMOSIT>
```

Рис.3 Выводим данные о сетевых интерфейсах подключенного устройства через ADB

```

PS C:\Users\StudentMOSIT> adb shell getprop
[aaudio.mmap_policy]: [2]
[camera.disable_zsl_mode]: [1]
[config.disable_bluetooth]: [false]
[dalvik.vm.appimageformat]: [lz4]
[dalvik.vm.dex2oat-Xms]: [64m]
[dalvik.vm.dex2oat-Xmx]: [512m]
[dalvik.vm.dex2oat-minidebuginfo]: [true]
[dalvik.vm.dexopt.secondary]: [true]
[dalvik.vm.heapgrowthlimit]: [256m]
[dalvik.vm.heapmaxfree]: [8m]
[dalvik.vm.heapminfree]: [512k]
[dalvik.vm.heapsize]: [512m]
[dalvik.vm.heapstartsize]: [16m]
[dalvik.vm.heaptargetutilization]: [0.75]
[dalvik.vm.image-dex2oat-Xms]: [64m]
[dalvik.vm.image-dex2oat-Xmx]: [64m]
[dalvik.vm.isa.arm.features]: [default]
[dalvik.vm.isa.arm.variant]: [cortex-a9]
[dalvik.vm.isa.arm64.features]: [default]
[dalvik.vm.isa.arm64.variant]: [generic]
[dalvik.vm.lockprof.threshold]: [500]
[dalvik.vm.stack-trace-dir]: [/data/anr]
[dalvik.vm.usejit]: [true]
[dalvik.vm.usejitprofiles]: [true]
[debug.atrace.tags.enableflags]: [0]
[debug.force_rtl]: [0]
[debug.sf.disable_backpressure]: [1]
[debug.sf.latch_unsignaled]: [1]
[dev.bootcomplete]: [1]
[dhclient.ipaddress.wlan0]: []
[dhclient.prefixlen.wlan0]: []
[dhclient.wlan0.result]: []
[drm.service.enable]: [true]
[drm.service.enabled]: [1]
[hwservicemanager.ready]: [true]
[init.svc.adbd]: [running]
[init.svc.audioserver]: [running]
[init.svc.bootanim]: [stopped]
[init.svc.cameraserver]: [running]
[init.svc.cmdserver]: [running]
[init.svc.console]: [running]
[init.svc.dhclient_wlan0]: [stopped]

```

Рис.4 Выводим текущие настройки подключенного устройства через ADB

```

PS C:\Users\StudentMOSIT> adb install 'C:\Users\StudentMOSIT\Downloads\com.yandex.mobile.realty_6.12.0-104800_minAPI26(arm64-v8a,armeabi-v7a,x86,x86_64)(nodpi)_apkmirror.com.apk'
Performing Streamed Install
Success

```

Рис.5 Выполняем установку приложения Яндекс.Недвижимость на подключенное устройство через ADB

```

PS C:\Users\StudentMOSIT> adb shell pm uninstall com.yandex.mobile.realty
Success
PS C:\Users\StudentMOSIT>

```

Рис.6 Выполняем удаление приложения Яндекс.Недвижимость используя внутреннюю оболочку устройства через ADB