Институт Информационных технологий

Кафедра Математического обеспечения и стандартизации информационных технологий

Практическая работа №2
По дисциплине: «Архитектура операционных систем мобильных устройств»

Студент группы

Принял работу

Москва, 2023

Задание 1: Вывод информации об устройстве:

```
C:\Users\student.KAF-MOSIT>adb shell getprop

[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.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]
[init.svc.drm]: [running]
[init.svc.flash_recovery]: [stopped]
[init.svc.gatekeeperd]: [running]
[init.svc.hdcp_tx22]: [stopped]
[init.svc.hdmicecd]: [running]
[init.svc.health-hal-2-0]: [running]
[init.svc.hidl_memory]: [running]
[init.svc.hwservicemanager]: [running]
[init.svc.imageserver]: [running]
[init.svc.incidentd]: [running]
[init.svc.installd]: [running]
[init.svc.keystore]: [running]
[init.svc.lmkd]: [running]
[init.svc.logd]: [running]
[init.svc.logd-reinit]: [stopped]
[init.svc.mdnsd]: [running]
[init.svc.media]: [running]
[init.svc.mediadrm]: [running]
[init.svc.mediaextractor]: [running]
[init.svc.mediametrics]: [running]
[init.svc.miracast_hdcp2]: [running]
[init.svc.netd]: [running]
[init.svc.neuralnetworks_hal_service_ovx]: [running]
[init.svc.perfprofd]: [running]
[init.svc.preinstall]: [stopped]
[init.svc.rc_server]: [running]
[init.svc.remotecfg]: [stopped]
```

```
[init.svc.ril-daemon]: [running]
[init.svc.screen_control]: [running]
[init.svc.servicemanager]: [running]
[init.svc.statsd]: [running]
[init.svc.storaged]: [running]
[init.svc.subtitleserver]: [running]
[init.svc.surfaceflinger]: [running]
[init.svc.system_control]: [running]
[init.svc.thermalservice]: [running]
[init.svc.tombstoned]: [running]
[init.svc.ueventd]: [running]
[init.svc.usbd]: [stopped]
[init.svc.vendor.audio-hal-2-0]: [running]
[init.svc.vendor.bluetooth-1-0]: [running]
[init.svc.vendor.camera-provider-2-4]: [running]
[init.svc.vendor.cas-hal-1-0]: [running]
[init.svc.vendor.cec-hal-1-0]: [running]
[init.svc.vendor.configstore-hal]: [running]
[init.svc.vendor.drm-clearkey-hal-1-1]: [running]
[init.svc.vendor.drm-widevine-hal-1-1]: [running]
[init.svc.vendor.gatekeeper-1-0]: [running]
[init.svc.vendor.gnss_service]: [running]
[init.svc.vendor.gralloc-2-0]: [running]
[init.svc.vendor.hwcomposer-2-2]: [running]
[init.svc.vendor.keymaster-3-0]: [running]
[init.svc.vendor.light-hal-2-0]: [running]
[init.svc.vendor.media.omx]: [running]
[init.svc.vendor.memtrack-hal-1-0]: [running]
[init.svc.vendor.power-hal-1-0]: [running]
[init.svc.vendor.ril-daemon]: [running]
[init.svc.vendor.sensors-hal-1-0]: [running]
[init.svc.vendor.thermal-hal-1-0]: [running]
[init.svc.vendor.usb-hal-1-0]: [running]
[init.svc.vendor.wifi_hal_legacy]: [running]
[init.svc.vndservicemanager]: [running]
[init.svc.vold]: [running]
[init.svc.wificond]: [running]
[init.svc.wpa_supplicant]: [running]
[init.svc.zygote]: [running]
[log.tag.WifiHAL]: [D]
[log.tag.stats_log]: [I]
[logd.logpersistd.enable]: [true]
[media.amnuplayer.audio.delayus]: [-40000]
[media.metadataretriver.disable-8k]: [true]
[media.omx.display_mode]: [1]
[media.support.dolbyvision]: [true]
[net.bt.name]: [Android]
[net.qtaguid_enabled]: [1]
[net.tcp.default_init_rwnd]: [60]
[net.tethering.noprovisioning]: [true]
[persist.audio.debug.read]: []
[persist.audio.debug.search]: []
[persist.logd.logpersistd]: []
[persist.netd.stable_secret]: [5e8d:f4d9:fb68:34c:5135:edaa:a023:e2f4]
[persist.service.bdroid.bdaddr]: [22:22:04:9f:c8:04]
[persist.sys.app.rotation]: [middle_port]
[persist.sys.bootvideo]: [50]
[persist.sys.dalvik.vm.lib.2]: [libart.so]
[persist.sys.hdmi.addr.playback]: [4]
[persist.sys.hdmi.keep_awake]: [false]
[persist.sys.logo.led.trigger]: [1]
[persist.sys.logoled.brightness]: [1]
[persist.sys.rotation]: [0]
[persist.sys.timezone]: [GMT]
[persist.sys.usb.config]: [adb]
[persist.sys.webview.vmsize]: [104857600]
[persist.vendor.media.bootvideo]: [0050]
[persist.vendor.sys.cec.autowakeup]: [true]
[persist.vendor.sys.cec.deviceautopoweroff]: [false]
[persist.vendor.sys.cec.set_menu_language]: [false]
[pm.dexopt.ab-ota]: [speed-profile]
[pm.dexopt.bg-dexopt]: [speed-profile]
[pm.dexopt.boot]: [verify]
[pm.dexopt.first-boot]: [quicken]
```

```
[pm.dexopt.inactive]: [verify]
[pm.dexopt.install]: [speed-profile]
[pm.dexopt.priv-apps-oob]: [false]
[pm.dexopt.priv-apps-oob-list]: [ALL]
[pm.dexopt.shared]: [speed]
[ro.actionable_compatible_property.enabled]: [true]
[ro.addon.arch]: [arm]
[ro.addon.open_type]: [mini]
[ro.addon.open_version]: [20300522]
[ro.addon.platform]: [9.0]
[ro.addon.sdk]: [28]
[ro.addon.type]: [gapps]
[ro.af.client_heap_size_kbyte]: [1536]
[ro.allow.mock.location]: [0]
[ro.art.hiddenapi.warning]: [1]
[ro.audio.mapvalue]: [0,0,0,0]
[ro.baseband]: [unknown]
[ro.bionic.ld.warning]: [1]
[ro.board.platform]: [u202]
[ro.boot.bootloader]: []
[ro.boot.bootreason]: [reboot]
[ro.boot.build.expect.baseband]: [N/A]
[ro.boot.dtbo_idx]: [0]
[ro.boot.firstboot]: [0]
[ro.boot.hardware]: [amlogic]
[ro.boot.mac]: [c8:63:14:72:52:bf]
[ro.boot.selinux]: [permissive]
[ro.boot.serialno]: [c863147252bf]
[ro.bootimage.build.date]: [Thu Jul 20 15:31:29 CST 2023]
[ro.bootimage.build.date.utc]: [1689838289]
[ro.bootimage.build.fingerprint]:
[Khadas/kvim3l/kvim3l:9/PPR1.180610.011/20230720:userdebug/test-keys]
[ro.bootloader]: [unknown]
[ro.bootmode]: [unknown]
[ro.boottime.adbd]: [9801626170]
[ro.boottime.audioserver]: [9287041044]
[ro.boottime.bootanim]: [11111189712]
[ro.boottime.cameraserver]: [9818087461]
[ro.boottime.cmdserver]: [30538933096]
[ro.boottime.console]: [9796965795]
[ro.boottime.drm]: [9819781920]
[ro.boottime.flash_recovery]: [9803395211]
[ro.boottime.gatekeeperd]: [9943175628]
[ro.boottime.hdmicecd]: [8973139711]
[ro.boottime.health-hal-2-0]: [9093509878]
[ro.boottime.hidl_memory]: [8999674211]
[ro.boottime.hwservicemanager]: [8725464753]
[ro.boottime.imageserver]: [7534935669]
[ro.boottime.incidentd]: [9834422461]
[ro.boottime.init]: [6401]
[ro.boottime.init.cold_boot_wait]: [181]
[ro.boottime.init.mount_all.default]: [869]
[ro.boottime.init.selinux]: [190]
[ro.boottime.installd]: [9844575753]
[ro.boottime.keystore]: [9853458253]
[ro.boottime.lmkd]: [9307794253]
[ro.boottime.logd]: [8721981003]
[ro.boottime.logd-reinit]: [8954849086]
[ro.boottime.mdnsd]: [10033654420]
[ro.boottime.media]: [9886019170]
[ro.boottime.mediadrm]: [9855329461]
[ro.boottime.mediaextractor]: [9875155003]
[ro.boottime.mediametrics]: [9884275711]
[ro.boottime.miracast_hdcp2]: [7537901335]
[ro.boottime.netd]: [8948150711]
[ro.boottime.neuralnetworks_hal_service_ovx]: [9186224753]
[ro.boottime.perfprofd]: [9957080045]
[ro.boottime.preinstall]: [30536598888]
[ro.boottime.rc_server]: [8975807586]
[ro.boottime.remotecfg]: [9816147503]
[ro.boottime.ril-daemon]: [9809130670]
[ro.boottime.screen_control]: [30877901096]
[ro.boottime.servicemanager]: [8723690044]
[ro.boottime.statsd]: [9887732295]
```

[ro.boottime.storaged]: [9893295586]
[ro.boottime.subtitleserver]: [8978686919]
[ro.boottime.surfaceflinger]: [9322002170]
[ro.boottime.system_control]: [8981681544]
[ro.boottime.thermalservice]: [9323706378]
[ro.boottime.tombstoned]: [9958802795]
[ro.boottime.ueventd]: [6915277210]
[ro.boottime.usbd]: [9980878420]
[ro.boottime.vendor.audio-hal-2-0]: [9002935336]
[ro.boottime.vendor.bluetooth-1-0]: [9007142544]
[ro.boottime.vendor.camera-provider-2-4]: [9012564586]
[ro.boottime.vendor.cas-hal-1-0]: [9016879211]
[ro.boottime.vendor.cec-hal-1-0]: [9250633878]
[ro.boottime.vendor.configstore-hal]: [9020540336]
[ro.boottime.vendor.drm-clearkey-hal-1-1]: [9024795544]
[ro.boottime.vendor.drm-widevine-hal-1-1]: [9039113044]
[ro.boottime.vendor.gatekeeper-1-0]: [9050366211]
[ro.boottime.vendor.gnss_service]: [9062970961]
[ro.boottime.vendor.gralloc-2-0]: [9077130253]
[ro.boottime.vendor.hwcomposer-2-2]: [9085665836]
[ro.boottime.vendor.keymaster-3-0]: [8760567753]
[ro.boottime.vendor.light-hal-2-0]: [9109165628]
[ro.boottime.vendor.media.omx]: [9925293545]
[ro.boottime.vendor.memtrack-hal-1-0]: [9180835128]
[ro.boottime.vendor.power-hal-1-0]: [9198020544]
[ro.boottime.vendor.ril-daemon]: [9940512045]
[ro.boottime.vendor.sensors-hal-1-0]: [9219079753]
[ro.boottime.vendor.thermal-hal-1-0]: [9237470878]
[ro.boottime.vendor.usb-hal-1-0]: [9257862878]
[ro.boottime.vendor.wifi_hal_legacy]: [9267738503]
[ro.boottime.vndservicemanager]: [8727713003]
[ro.boottime.vold]: [8763390044]
[ro.boottime.wificond]: [9909591878]
[ro.boottime.wpa_supplicant]: [19179454424]
[ro.boottime.zygote]: [8949813753]
[ro.build.characteristics]: [mbx,nosdcard]
[ro.build.date]: [Thu Jul 20 15:31:29 CST 2023]
[ro.build.date.utc]: [1689838289]
[ro.build.description]: [kvim3l-userdebug 9 PPR1.180610.011 20230720 test-keys]
[ro.build.display.id]: [VIM3L_Pie_V230720]
[ro.build.expect.bootloader]: [01.01.180822.145544]
[ro.build.fingerprint]: [OnePlus/OnePlus6/OnePlus6:8.1.0/OPM1.171019.011/06140300:user/release-keys]
[ro.build.flavor]: [kvim3l-userdebug]
[ro.build.host]: [server]
[ro.build.id]: [PPR1.180610.011]
[ro.build.product]: [kvim3l]
[ro.build.system_root_image]: [true]
[ro.build.tags]: [test-keys]
[ro.build.type]: [userdebug]
[ro.build.user]: [xiong]
[ro.build.version.all_codenames]: [REL]
[ro.build.version.base_os]: []
[ro.build.version.codename]: [REL]
[ro.build.version.incremental]: [20230720]
[ro.build.version.min_supported_target_sdk]: [17]
[ro.build.version.preview_sdk]: [0]
[ro.build.version.release]: [9]
[ro.build.version.sdk]: [28]
[ro.build.version.security_patch]: [2018-08-05]
[ro.carrier]: [unknown]
[ro.config.alarm_alert]: [Alarm_Classic.ogg]
[ro.config.low_ram]: [true]
[ro.config.notification_sound]: [pixiedust.ogg]
[ro.config.ringtone]: [Ring_Synth_04.ogg]
[ro.crypto.fuse_sdcard]: [true]
[ro.crypto.state]: [unencrypted]
[ro.crypto.volume.filenames_mode]: [aes-256-cts]
[ro.dalvik.vm.native.bridge]: [0]
[ro.debuggable]: [1]
[ro.device_owner]: [false]
[ro.expect.recovery_id]: [0x7f2bab2d84112d2eda527485eb07db8d8b0810af00000000000000000000000000]
[ro.hardware]: [amlogic]
[ro.hdmi.device_type]: [4]

```
[ro.hdmi.set_menu_language]: [true]
[ro.logd.size.stats]: [64K]
[ro.media.camera_preview.limitedrate]: [1920x1080x30,1280x720x30,640x480x30,320x240x28]
[ro.media.camera_preview.maxsize]: [1920x1080]
[ro.media.camera_preview.usemjpeg]: [1]
[ro.media.camera_usb.faceback]: [false]
[ro.media.maxmem]: [629145600]
[ro.net.pppoe]: [true]
[ro.opengles.version]: [196610]
[ro.persistent_properties.ready]: [true]
[ro.platform.support.dolbyvision]: [true]
[ro.product.board]: [kvim3l]
[ro.product.brand]: [Khadas]
[ro.product.build.date]: [Thu Jul 20 15:31:29 CST 2023]
[ro.product.build.date.utc]: [1689838289]
[ro.product.build.fingerprint]: [Khadas/kvim3l/kvim3l:9/PPR1.180610.011/20230720:userdebug/test-
keys]
[ro.product.cpu.abi]: [armeabi-v7a]
[ro.product.cpu.abi2]: [armeabi]
[ro.product.cpu.abilist]: [armeabi-v7a,armeabi]
[ro.product.cpu.abilist32]: [armeabi-v7a,armeabi]
[ro.product.cpu.abilist64]: []
[ro.product.device]: [kvim3l]
[ro.product.firmware]: [00904011]
[ro.product.first_api_level]: [28]
[ro.product.locale]: [en-US]
[ro.product.manufacturer]: [Khadas]
[ro.product.model]: [VIM3L]
[ro.product.name]: [kvim3l]
[ro.product.otaupdateurl]: [http://android.khadas.com:8082/otaupdate/update]
[ro.product.vendor.brand]: [Khadas]
[ro.product.vendor.device]: [kvim3l]
[ro.product.vendor.manufacturer]: [Khadas]
[ro.product.vendor.model]: [VIM3L]
[ro.product.vendor.name]: [kvim3l]
[ro.property_service.version]: [2]
[ro.radio.noril]: [false]
[ro.revision]: [0]
[ro.runtime.firstboot]: [1293883248608]
[ro.secure]: [1]
[ro.serialno]: [c863147252bf]
[ro.sf.disable_triple_buffer]: [1]
[ro.sf.lcd_density]: [280]
[ro.treble.enabled]: [true]
[ro.vendor.app.optimization]: [true]
[ro.vendor.autoconnectbt.btclass]: [50c]
[ro.vendor.autoconnectbt.isneed]: [false]
[ro.vendor.autoconnectbt.macprefix]: [00:CD:FF]
[ro.vendor.autoconnectbt.nameprefix]: [Amlogic_RC]
[ro.vendor.autoconnectbt.rssilimit]: [70]
[ro.vendor.build.date]: [Thu Jul 20 15:31:29 CST 2023]
[ro.vendor.build.date.utc]: [1689838289]
[ro.vendor.build.fingerprint]: [Khadas/kvim3l/kvim3l:9/PPR1.180610.011/20230720:userdebug/test-
keys]
[ro.vendor.build.security_patch]: []
[ro.vendor.camera_usb.faceback]: [true]
[ro.vendor.platform.board_camera]: [true]
[ro.vendor.platform.disable.audiorawout]: [false]
[ro.vendor.platform.has.mbxuimode]: [true]
[ro.vendor.platform.has.realoutputmode]: [true]
[ro.vendor.platform.hdmi.device_type]: [4]
[ro.vendor.platform.is.tv]: [0]
[ro.vendor.platform.need.display.hdmicec]: [true]
[ro.vendor.platform.omx]: [true]
[ro.vendor.platform.support.dolby]: [true]
[ro.vendor.platform.support.dolbyvision]: [true]
[ro.vendor.platform.support.dts]: [true]
[ro.vendor.platform.usehwh264]: [true]
[ro.vendor.platform.usehwmjpeg]: [true]
[ro.vendor.product.cpu.abilist]: [armeabi-v7a,armeabi]
[ro.vendor.product.cpu.abilist32]: [armeabi-v7a,armeabi]
[ro.vendor.product.cpu.abilist64]: []
[ro.vendor.sdr2hdr.enable]: [true]
[ro.vendor.vndk.version]: [26.1.0]
```

```
[ro.vndk.version]: [28]
[ro.wifi.channels]: []
[ro.zygote]: [zygote32]
[security.perf_harden]: [1]
[selinux.restorecon_recursive]: [/data/misc_ce/0]
[service.adb.tcp.port]: [5555]
[service.bootanim.exit]: [1]
[service.bootvideo]: [0]
[service.bootvideo.exit]: [0]
[service.sf.present_timestamp]: [1]
[sys.boot.reason]: [reboot]
[sys.boot_completed]: [1]
[sys.extboard.exist]: [0]
[sys.lcd.exist]: [0]
[sys.logbootcomplete]: [1]
[sys.retaildemo.enabled]: [0]
[sys.sysctl.extra_free_kbytes]: [24300]
[sys.usb.config]: [adb]
[sys.usb.configfs]: [1]
[sys.usb.controller]: [ff400000.dwc2_a]
[sys.usb.ffs.ready]: [1]
[sys.usb.state]: [adb]
[sys.user.0.ce_available]: [true]
[sys.wifitracing.started]: [1]
[tombstoned.max_tombstone_count]: [50]
[vendor.afbcd.enable]: [1]
[vendor.display-size]: [720x576]
[vendor.sys.hwc.booted]: [true]
[vendor.system.support.dolbyvision]: [false]
[vold.has_adoptable]: [1]
[vold.has_quota]: [1]
[vold.has_reserved]: [1]
[vold.post_fs_data_done]: [1]
[wifi.direct.interface]: [p2p-dev-wlan0]
[wifi.interface]: [wlan0]
[wlan.driver.status]: [ok]
```

Задание 2: Вывод логов:

```
 C:\Users\student.KAF-MOSIT>adb logcat
--------- beginning of system
01-01 12:00:07.228  3325  3325 I vold     : Vold 3.0 (the awakening) firing up
01-01 12:00:07.230  3325  3325 V vold     : Detected support for: ext4 vfat ntfs exfat iso9660
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop0: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop3: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop2: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop5: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop7: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop4: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop6: No such
device or address
01-01 12:00:07.236  3325  3325 W vold     : Failed to LOOP_GET_STATUS64 /dev/block/loop1: No such
device or address
01-01 12:00:07.241  3325  3325 D vold     : VoldNativeService::start() completed OK
01-01 12:00:07.247  3325  3336 D vold     : e4crypt_init_user0
01-01 12:00:07.247  3325  3336 D vold     : e4crypt_prepare_user_storage for volume null, user 0,
serial 0, flags 1
01-01 12:00:07.247  3325  3336 D vold     : Preparing: /data/system/users/0
01-01 12:00:07.248  3325  3336 D vold     : Preparing: /data/misc/profiles/cur/0
01-01 12:00:07.248  3325  3336 D vold     : Preparing: /data/system_de/0
01-01 12:00:07.248  3325  3336 D vold     : Preparing: /data/misc_de/0
01-01 12:00:07.249  3325  3336 D vold     : Preparing: /data/vendor_de/0
01-01 12:00:07.249  3325  3336 D vold     : Preparing: /data/user_de/0
01-01 12:00:07.250  3325  3336 V vold     : /system/bin/vold_prepare_subdirs
01-01 12:00:07.250  3325  3336 V vold     :     prepare
01-01 12:00:07.250  3325  3336 V vold     :
01-01 12:00:07.250  3325  3336 V vold     :     0
01-01 12:00:07.250  3325  3336 V vold     :     1
01-01 12:00:07.285  3325  3336 D vold     : e4crypt_unlock_user_key 0 serial=0 token_present=0
01-01 12:00:08.029  3426  3426 I android.hardware.wifi@1.0-service: Wifi Hal is booting up...
01-01 12:00:08.525  3491  3491 I installd: installd firing up
01-01 12:00:08.715  3504  3504 I wificond: wificond is starting up...
01-01 12:00:09.328  3394  3394 D Zygote32Timing: BeginIcuCachePinning took to complete: 67ms
01-01 12:00:09.452  3503  3587 W storaged: health: invalid battery status
01-01 12:00:10.580  3394  3394 D Zygote32Timing: PreloadClasses took to complete: 1252ms
01-01 12:00:10.866  3394  3394 D Zygote32Timing: PreloadResources took to complete: 286ms
01-01 12:00:10.971  3394  3394 D Zygote32Timing: ZygotePreload took to complete: 1710ms
01-01 12:00:11.056  3394  3394 D Zygote32Timing: PostZygoteInitGC took to complete: 85ms
01-01 12:00:11.056  3394  3394 D Zygote32Timing: ZygoteInit took to complete: 1797ms
01-01 12:00:11.284  3641  3641 I chatty  : uid=1000 system_server expire 175 lines
01-01 12:00:11.538  3641  3655 I chatty  : uid=1000 system_server expire 13 lines
01-01 12:00:11.630  3641  3661 I chatty  : uid=1000(system) batterystats-wo expire 6 lines
01-01 12:00:11.834  3641  3665 I chatty  : uid=1000(system) android.display expire 5 lines
01-01 12:00:12.533  3641  3693 I chatty  : uid=1000 system_server expire 2 lines
01-01 12:00:12.733  3641  3641 I chatty  : uid=1000 system_server expire 67 lines
01-01 12:00:12.755  3641  3699 I chatty  : uid=1000 system_server expire 3 lines
01-01 12:00:12.756  3641  3700 I chatty  : uid=1000 system_server expire 5 lines
01-01 12:00:12.790  3503  3587 I storaged: storaged: Start
01-01 12:00:12.790  3503  3587 E storaged: getDiskStats failed with result NOT_SUPPORTED and size
0
01-01 12:00:12.823  3641  3655 I chatty  : uid=1000 system_server expire 5 lines
01-01 12:00:12.959  3641  3665 I chatty  : uid=1000(system) android.display expire 1 line
01-01 12:00:13.077  3641  3641 I chatty  : uid=1000 system_server expire 64 lines
01-01 12:00:13.080  3641  3699 I chatty  : uid=1000 system_server expire 2 lines
01-01 12:00:13.191  3641  3693 I chatty  : uid=1000 system_server expire 3 lines
01-01 12:00:13.234  3641  3715 I chatty  : uid=1000(system) NetworkWatchlis expire 2 lines
01-01 12:00:13.287  3641  3716 I chatty  : uid=1000(system) StorageManagerS expire 3 lines
01-01 12:00:13.288  3325  3336 E vold     : Failed to read field SystemLocale: Success
01-01 12:00:13.293  3641  3700 I chatty  : uid=1000 system_server expire 4 lines
01-01 12:00:13.340  3641  3641 I chatty  : uid=1000 system_server expire 72 lines
```

Задание 3: Вывод информации о сети:

```
C:\Users\student.KAF-MOSIT>adb shell ifconfig
wlan0     Link encap:Ethernet  HWaddr 10:2c:6b:cb:d5:5f  Driver bcmsdh_sdmmc
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:3 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 TX bytes:298

eth0      Link encap:Ethernet  HWaddr c8:63:14:72:52:bf  Driver meson6-dwmac
          UP BROADCAST MULTICAST  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:0 TX bytes:0
          Interrupt:28

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope: Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:122 errors:0 dropped:0 overruns:0 frame:0
          TX packets:122 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1
          RX bytes:21743 TX bytes:21743
```

Задание 4: Вывод текущих настроек устройства:

```
C:\Users\student.KAF-MOSIT>adb shell settings list system
accelerometer_rotation=0
alarm_alert=content://media/internal/audio/media/13
alarm_alert_set=1
dim_screen=1
dtmf_tone=1
dtmf_tone_type=0
haptic_feedback_enabled=1
hearing_aid=0
hide_rotation_lock_toggle_for_accessibility=0
lockscreen_sounds_enabled=1
mode_ringer_streams_affected=166
mute_streams_affected=47
notification_light_pulse=1
notification_sound=content://media/internal/audio/media/180
notification_sound_set=1
pointer_speed=0
ringtone=content://media/internal/audio/media/39
ringtone_set=1
screen_brightness=102
screen_brightness_for_vr=86
screen_brightness_mode=0
screen_off_timeout=-1
sound_effects_enabled=1
tty_mode=0
user_rotation=0
vibrate_when_ringing=0
volume_alarm=6
volume_bluetooth_sco=7
volume_music=5
volume_music_usb_headset=3
volume_notification=5
volume_ring=5
volume_system=7
volume_voice=4
```

Задание 5: Получение списка установленных приложений:

```
C:\Users\student.KAF-MOSIT>adb shell pm -l
```

```
package:com.google.android.carriersetup
package:com.droidlogic.inputmethod.remote
package:com.android.cts.priv.ctsshim
package:com.google.android.ext.services
package:com.android.providers.telephony
package:com.android.providers.calendar
package:com.android.tv.settings
package:com.android.providers.media
package:com.google.android.onetimeinitializer
package:com.google.android.ext.shared
package:com.android.wallpapercropper
package:com.android.documentsui
package:com.android.externalstorage
package:com.android.htmlviewer
package:com.android.companiondevicemanager
package:com.android.providers.downloads
package:com.droidlogic.mediacenter
package:com.google.android.soundpicker
package:com.droidlogic
package:com.droidlogic.tv.settings
package:com.google.android.configupdater
package:com.android.defcontainer
package:com.android.vending
package:com.android.pacprocessor
package:com.android.certinstaller
package:cm.aptoidetv.pt
package:android
package:com.android.camera2
package:com.android.launcher3
package:com.android.backupconfirm
package:cn.com.factorytest
package:com.droidlogic.FileBrower
package:com.google.android.deskclock
package:com.android.statementservice
package:com.android.providers.settings
package:com.android.sharedstoragebackup
package:com.android.dreams.basic
package:com.android.webview
package:com.android.se
package:com.android.inputdevices
package:com.google.android.apps.wellbeing
package:com.khadas.logoledcontrol
package:com.droidlogic.BluetoothRemote
package:com.android.musicfx
package:com.droidlogic.SubTitleService
package:com.google.android.markup
package:com.google.android.syncadapters.contacts
package:com.android.keychain
package:com.google.android.gm.exchange
package:com.google.android.calculator
package:com.android.chrome
package:com.android.gallery3d
package:com.google.android.gms
package:com.google.android.gsf
package:com.google.android.tts
package:com.droidlogic.videoplayer
package:com.google.android.partnersetup
package:com.khadas.schpwronoff
package:com.android.packageinstaller
package:com.android.proxyhandler
package:com.android.inputmethod.latin
package:com.google.android.feedback
package:com.google.android.calendar
package:com.google.android.syncadapters.calendar
package:com.android.managedprovisioning
package:com.android.dreams.phototable
```

```
package:com.droidlogic.miracast
package:com.android.smspush
package:com.android.wallpaper.livepicker
package:com.google.android.backuptransport
package:com.android.cts.ctsshim
package:com.droidlogic.imageplayer
package:com.android.vpndialogs
package:com.android.music
package:com.android.phone
package:com.android.shell
package:com.android.wallpaperbackup
package:com.android.providers.userdictionary
package:com.android.location.fused
package:com.android.systemui
package:com.droidlogic.appinstall
package:com.google.android.gms.setup
package:com.android.bluetooth
package:com.android.providers.contacts
package:com.android.captiveportallogin
package:com.droidlogic.otaupgrade
package:com.google.android.apps.restore
```

Задание 6: Установка приложения Я.Музыка:
C:\Users\student.KAF-MOSIT>**adb install -r** C:\Users\student.KAF-MOSIT\Downloads\
ru.yandex.music_2023.09.2_10gpr-24023471_minAPI24(arm64-v8a,armeabi-v7a,x86,x86_64)
(nodpi)_apkmirror.com.apk
Performing Streamed Install
Success

Задание 7: Удаление приложения Я.Музыка:
C:\Users\student.KAF-MOSIT>**adb shell pm uninstall** ru.yandex.music
Success