# Sanigear Kiosk App — Project README

This repository contains the source code for the **Sanigear Kiosk App**, an Android application designed for secure, locked-down use on tablets in kiosk environments. The app is tailored to load a specific web portal, enforce device restrictions, and support remote updates.

## 🔐 Features

### ✅ Kiosk Mode

* Locks the tablet to only allow the Sanigear app
* Device Owner mode enforcement using startLockTask()
* Whitelists specific apps required for functionality (e.g. Adobe PDF Reader, PrintSpooler)

### 🔒 Watchdog Service

* Foreground service that monitors and exits any unauthorized apps
* Automatically restarts the kiosk app if user navigates away

### 🧑‍💼 Admin Override

* Exit kiosk mode by entering a secure admin PIN via volume-up button sequence
* Also stops the watchdog service when admin mode is activated

### 🌐 WebView Browsing

* Loads the Sanigear portal in fullscreen
* Supports multiple tabs for PDFs and site navigation
* Maintains session cookies for authenticated access

### 🖨️ PDF Viewer & Printing

* Downloads and opens PDFs within the app
* Allows printing using system print dialog via whitelisted print services

### 🚀 Auto-Update System

* Checks GitHub Releases once per week (or manually via About screen)
* Downloads latest APK if version is newer
* Automatically installs and restarts the app (Device Owner install flow)

### 🔧 System Utilities

* BootReceiver to start services on boot
* Splash screen on startup
* Logs watchdog and update activities via Logcat

## 📂 Project Structure

* MainActivity.java — WebView activity with kiosk logic
* AppWatchdogService.java — Background service monitoring active apps
* BootReceiver.java — Starts the Watchdog and lock task on boot
* Utils.java — GitHub version checker, APK downloader, and installer
* AppUpdateReceiver.java — Handles restart after auto-update completes
* device\_admin\_receiver.xml — Metadata for device admin
* file\_paths.xml — FileProvider paths for APK sharing

## 🧠 Lessons Learned

* Watchdog needs to be aware of printer services (e.g. com.android.printspooler)
* Device Owner mode is essential to allow silent installs via PackageInstaller
* GitHub API returns release tag\_name, not versionName — normalization is key
* You must update **both** versionCode and versionName in build.gradle on every release
* Android 12+ requires android:exported="true" for all receivers with intent-filters

## 🔄 Reminders for Developers

### When Publishing a New Release:

1. **Update** ``

* versionCode X  
  versionName "1.X"

1. **Tag release** in GitHub following format: SanigearKiosk\_v1.X
2. **Upload APK** named app-debug.apk to GitHub release assets
3. **Test install** via ADB or direct GitHub flow
4. **Ensure Device Owner** is still set on test devices

## 📘 Additional Docs

See:

* [INSTALLATION\_GUIDE.md](file:///C:\Users\herje\Downloads\INSTALLATION_GUIDE.md) — for tablet deployment and setup
* [DEVELOPER\_NOTES.md](file:///C:\Users\herje\Downloads\DEVELOPER_NOTES.md) — for build, update, and debug workflows

## ⚙️ Reminder: Device Owner Setup

To assign the app as Device Owner:

1. **Factory reset the tablet** (Settings > General Management > Reset > Factory Data Reset)
2. During setup:
   * Connect to Wi-Fi
   * **Skip** Google Account setup
   * Complete the rest of setup without signing in
3. On your PC, with ADB installed:

* adb shell dpm set-device-owner com.sanigear.kioskapp/.MyDeviceAdminReceiver

⚠️ You must do this **before** adding any Google account. Once an account is added, setting Device Owner is no longer allowed.

## 🛠️ Emergency Recovery (Factory Reset via ADB)

If you’re locked out due to watchdog or kiosk mode, you can trigger a factory reset from your PC:

1. Connect the tablet to your PC via USB
2. In Command Prompt/Terminal:

* adb devices  
  adb shell am broadcast -a android.intent.action.FACTORY\_RESET

This will **erase all data** on the tablet. Make sure USB debugging is enabled.

If the above fails, reboot into recovery manually:

adb reboot recovery

Then use volume/power buttons to select **Wipe data/factory reset**.

## 🧑‍💻 Author

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## 🛡️ License

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