**Use Case Diagram**

Fig-01: Use case diagram Custom OS

**<<extend>>**

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AUTHORIZED

Custom OS

USER

**Data Diagram**

Custom OS

-OS ID: int

-Name: String

-Version: String

-Developer: String

-Release Date: Date

Fig-02: Data diagram Custom OS

-Setting ID: int

-Name: String

-Type: String

-Value: String

Setting

Theme

-Theme ID: int

-Name: String

-Author: String

-Description: String

**Test case:**

1. **Installation Test Cases:** Verify that the Custom OS can be successfully installed on supported devices. Check for any errors or issues during the installation process. Test the installation on different device models.
2. **Boot and Startup:** Confirm that the Custom OS boots up correctly without any errors. Check the boot time and ensure it is reasonable.
3. **User Interface (UI) Test Cases:** Test the Custom OS user interface for responsiveness and smoothness. Check if all UI elements are displayed correctly, including icons, widgets, and menus.
4. **Functionality Test Cases:** Verify the functionality of custom features introduced in the ROM.Test any modifications made to the default Android OS functionality. Test core features such as making calls, sending messages, camera, Wi-Fi, Bluetooth, etc.
5. **Settings and Configuration:** Test the custom settings and configurations unique to the Custom OS. Ensure that changes to settings are applied as expected.
6. **Stability and Performance:** Conduct stress testing to check for stability and performance under heavy usage. Measure memory usage and ensure there are no memory leaks. Check for lags, freezes, or crashes during regular usage.
7. **Compatibility Test Cases:** Verify that the Custom OS is compatible with various device models and hardware configurations. Test compatibility with different screen resolutions and densities.
8. **Security Test Cases:** Ensure that the Custom OS has the necessary security patches. Check for any potential security vulnerabilities.
9. **Network Connectivity:** Test Wi-Fi, cellular data, and other network connectivity options. Ensure that network connectivity is stable and functional.
10. **Battery Life:** Test the Custom OS impact on battery life compared to the stock Android OS. Check for any excessive battery drain.
11. **Multimedia Test Cases:** Test audio and video playback. Verify the functionality of the camera and other multimedia features.
12. **OTA (Over-The-Air) Updates:** If the Custom OS supports OTA updates, test the update process. Verify that the update is applied correctly without data loss.