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HW 3

Create an effective and small test plan specify for testing recent model of smart phone performance (e.g. battery or network or memory or physical space etc.)

1. User Story (20%)

As a <User / type of user>
I want to <Some achievable goal / target>
so that *achieve <some result or reason of doing the thing>*

Scenario: _____
Given _____
When _____
Then _____

Solution:

As a **smartphone user**,
I want to test how long my iphone's battery lasts during various activities. so that I can ensure it provides reliable performance throughout the day.

Scenario: Battery Life Testing
Given my iphone is fully charged,
When I perform various activities (videos, gaming, browsing),
Then I want to record how much battery percentage is used after each activity.

2. **Test Objectives (5%)**

Should include testing cellular phone's Manufacture: _____; OS: _____; OS Version: _____

Solution: 2 Test Objectives

Testing phone manufacturer: **Apple**;
OS: **iOS17**;
OS Version: **17.5**.1

3. Scope (10%)

Solution:3

Battery Life Testing: This will Measure how long battery lasts:

- Memory usage while running multiple applications

Videos : Testing for 2 hours.

Gaming: Testing for 1 hour.

Web Browsing: Testing for 1 hour.

- how much battery is used during multitasking and heavy usage.

- Network performance under different signal conditions (e.g., Wi-Fi, 4G, 5G).
- Physical space usage by apps and system processes.
- And measure how long it takes to charge the battery from 0% to 100%.

4. Out of Scope (5%)

Solution4**:**

- By Testing battery performance with non-Apple apps.
- Battery Health: Evaluating the capacity of the battery.
- Physical Durability: Testing the phone's resistance to water.
- Overheating.

5. Assumption (10%)

Solution 5:

- The iPhone is new and should functioning correctly.
- The testing environment is consistent (same brightness, Wi-Fi connected) even network conditions vary.
- No background apps will interfere during tests.
- Users will operate the iphone under normal usage patterns.

6. Risk Analysis (10%)

- Battery health may not be optimal if the device isn't new.
- Variations in usage of iphone may lead to inconsistent results.
- Minor memory leaks that do not impact overall usability

7. Entry Criteria (10%)

- The device is fully charged and run the latest stable version of the OS.
- All necessary testing tools and apps are installed and configured .
- The latest software updates should be installed..
- The iPhone must be reset to factory settings.
- Testing tools (battery monitoring apps) must be ready.

8. Exit Criteria (10%)

- All planned tests are completed, and results are documented.
- Any critical issues found are resolved or logged for future review.

9. Test Matrix (20%)

Test case id	**description**	**Expected result**	**Actual result**	**status**

1	Test battery while streaming videos	Battery should drop no more than 20% after 2 hours	TBD	pending
2	Test battery during gaming	Battery should drop no more than 15% after 1 hour	TBD	pending
3	Test battery usage while browsing	Battery should drop no more than 10% after 1 hour	TBD	pending
4	Test battery drain when idle	Battery should drop no more than 5% after 12 hours	TBD	pending
5	Measure recharge time	Battery should fully charge in no more than 2 hours	TBD	pending