Assignment # 01

Name: Muhammad Rashaan Idrees.
SapId: 56177   Section: SE 5-2
Course: Operating System
Course Instructor: Sr. Shahzad Ahmed

Task 1: Explain basic differences between the different versions of android operating system.

1: **Android 13:** Released on August 2022.
   Key features:
   * Had increased privacy and personalization (Security).
   * Had introduced Material you customization that had extended color themes across apps.
   * Had better tablet and folder support with taskbar and improved UI.
   * Had Improved Bluetooth Low Energy (LE) Audio support for better sound quality.

2: **Android 14:** Released on October 2023.
   Key features:
   * Had enhanced availability of bigger fonts upto 200% and better screen magnification.
   * Had improved battery life with improved and optimized background tasks.
   * Had more control on data sharing means restrictions on apps accessing background data.
   * Had improved health and fitness tracking by

integrating Health Connect.
* Better Satellite connectivity support.

3: Android 15: Released in 2024.

* Had enhanced satellite messaging service for areas without mobile coverages.
* More advanced privacy controls having stronger app restrictions.
* Had better performance optimization for large screen devices (tablets/ foldables etc).
* Improved battery performance /effeciency and resource management.

x——x——x——x

Task 2 : What do you expect from a new operating System?

From a new operating system, I expect speed and effeciency or enhanced performance, stability, and resource management which would be the core functionalities. In terms of security and protection, I expect advanced threat detection, data security and sandboxing. In terms of UX and app management, I would expect user-friendly interface, seamless application management and data portablity or interchange. In terms of advanced features, I expect AI integration, cloud &

edge computing, modular design and architecture, abstraction, and customization.

X———X——X———X

Task 3: Windows 8 Failure :-

Windows 8 was officially released into the market by microsoft in 2012 as the next successor after windows 7. Here are some reasons of why it actually failed while having a higher picture in mind that it would be successful in the eyes of people who were using windows 7.

1. **UI changes Unwanted** : The entire shift to the touch-centric "Metro" interface confused and started away desktop users accustomed to the start menu.

2. **Dual-Interface Confusion:** Switch or an exceptional shift between the new "Metro" screen and the traditional desktop created a frusturating and disjointed experience-

3. **Poor non-touch Optimization :** The OS was designed for touch screens but launched when most users still used mice and keyboards, making it feel awkward and inconvenient.

4. **Lack of desktop inovation:** It was precieved or informed as a downgrade from windows 7 OS for desktop users, offering few new features that benefited them.

X———X——X———X

Task 4 : Failure of windows phone

The windows phone was microsoft's attempt to enter into the smartphone business at that time. This was introduced after the concept of windows mobile as a successor in 2010.

Microsoft laid a partnership with nokia in 2011, making the official flagship phone for Nokia to be known as "Windows phone" which had later on created a confusion among users since its name was to be argued about by most people.

→ **Key Reasons behind failure:**
Windows phone failed due to:

1. **Late Market Entry:** It launched years after iOS and Android had already been in market and established user loyality.

2. **Lack of App Ecosystem:** It suffered from a critical lack of popular apps and poor developer support, creating a "no users → no developers → no users" cycle.

3. **Poor Google interaction:** Google denied and refused to support the platform, making its essential services unavailable or poorly functioning.

4. **Strategic Missteps:** Inconsistent branding (Windows phone 7, 8, 10 Mobile) and a costly acquisition of Nokia that didn't yield innovation, confused users and fractured or nearly destroyed the platform.

X——X——X——X