**CIA Triad in Cybersecurity**

1. **What is CIA?**

The CIA Triad which means Confidentiality, Integrity, and Availability is a foundational model in information security. It serves as a guiding framework for policies and practices that aim to protect critical information and ensure the reliability of systems within an organization. It is one of the main and first things to learn in cybersecurity.

1. **The triad’s three core principles:**

* Confidentiality: Makes sure that sensitive data is accessible only to authorized users and protected from unauthorized access.
* Real Life Example: A WhatsApp message is encrypted so only me and the receiver can read it.
* Integrity: Ensuring information is accurate, ensuring it hasn’t been tampered with or altered by unauthorized individuals.
* Real Life Example: If I transfer money online, the bank system must ensure the amount is not changed during the process.
* Availability: Guarantees that data and systems are accessible when needed by authorized users, minimizing downtime or disruptions.
* Real Life Example: Google Search or Gmail being available almost 24/7. If it’s down, users can’t work.

1. **Conclusion:**

The three of these features must work together, if one fails, security is compromised, thus they are very important for a secure digital life.

1. **References:**

https://www.geeksforgeeks.org/computer-networks/the-cia-triad-in-cryptography/