CIA Triad

The CIA triad is a foundational model in information security that focuses on three core principles:

**Confidentiality**

**Definition:**  
Confidentiality means making sure that only authorized people can access certain information. It helps keep private or sensitive data safe from others.

**Example:**  
Think of your phone or laptop you use a password or fingerprint to unlock it. That way, your personal messages, photos, and apps are protected and only available to **you**.

**Integrity**

**Definition:**  
Integrity is all about keeping information accurate and trustworthy. It ensures that data hasn’t been changed by someone who shouldn't be touching it.

**Example:**  
Take a patient's medical record if someone were to change or delete information without permission, it could lead to the wrong treatment. Keeping the file correct is critical to the patient’s safety.

#### availability

**Definition:**  
Availability means that systems, applications, and data should be accessible whenever they are needed without delays or downtime.

**Example:**  
Online banking is a great example. You expect to access your bank account anytime, whether it’s 2 PM or 2 AM. If the system is down, it becomes frustrating or even risky in emergencies.