

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES



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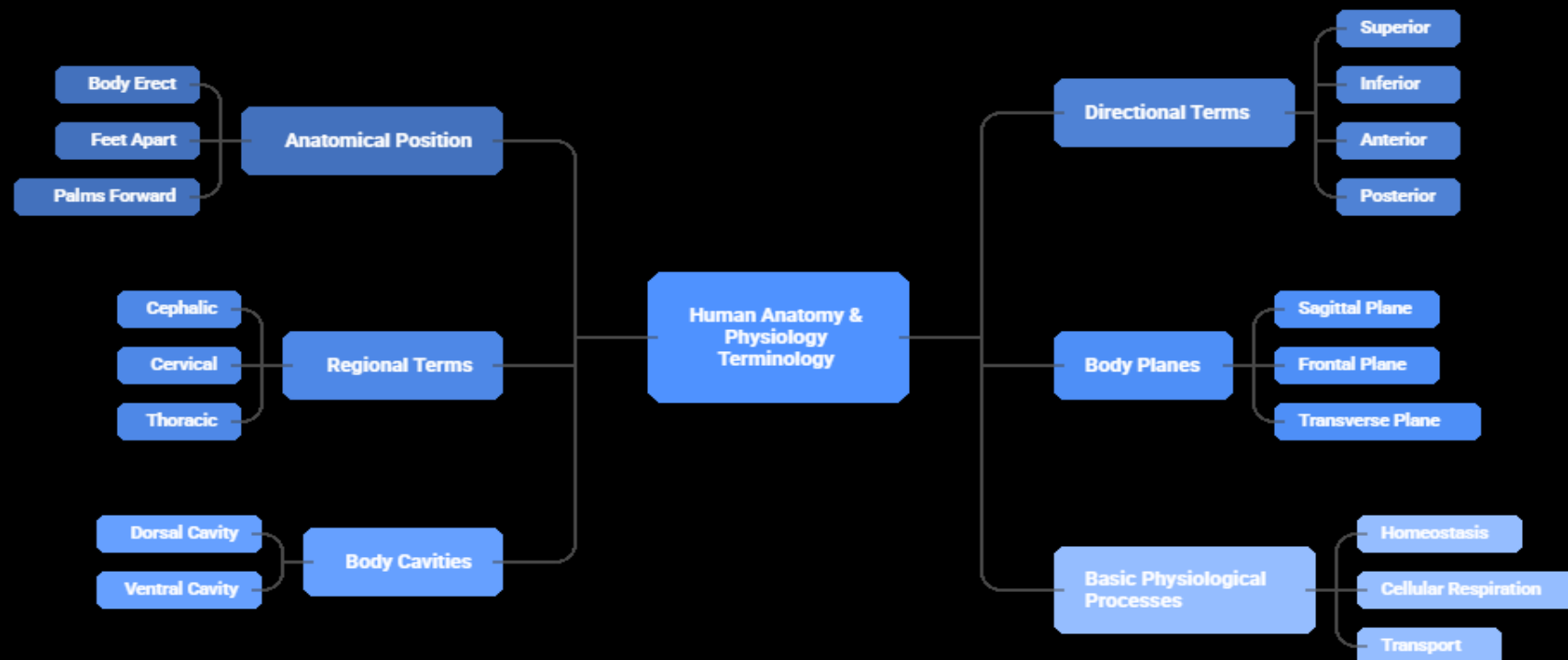
Coimbatore -641035

COURSE NAME : HUMAN ANATOMY AND PHYSIOLOGY (ER20-14T)

I D. PHARM

TOPIC 1 : VARIOUS TERMINOLOGIES USED IN HUMAN ANATOMY AND PHSYIOLOGY

Mindmap for Human Anatomy & Physiology Terminology



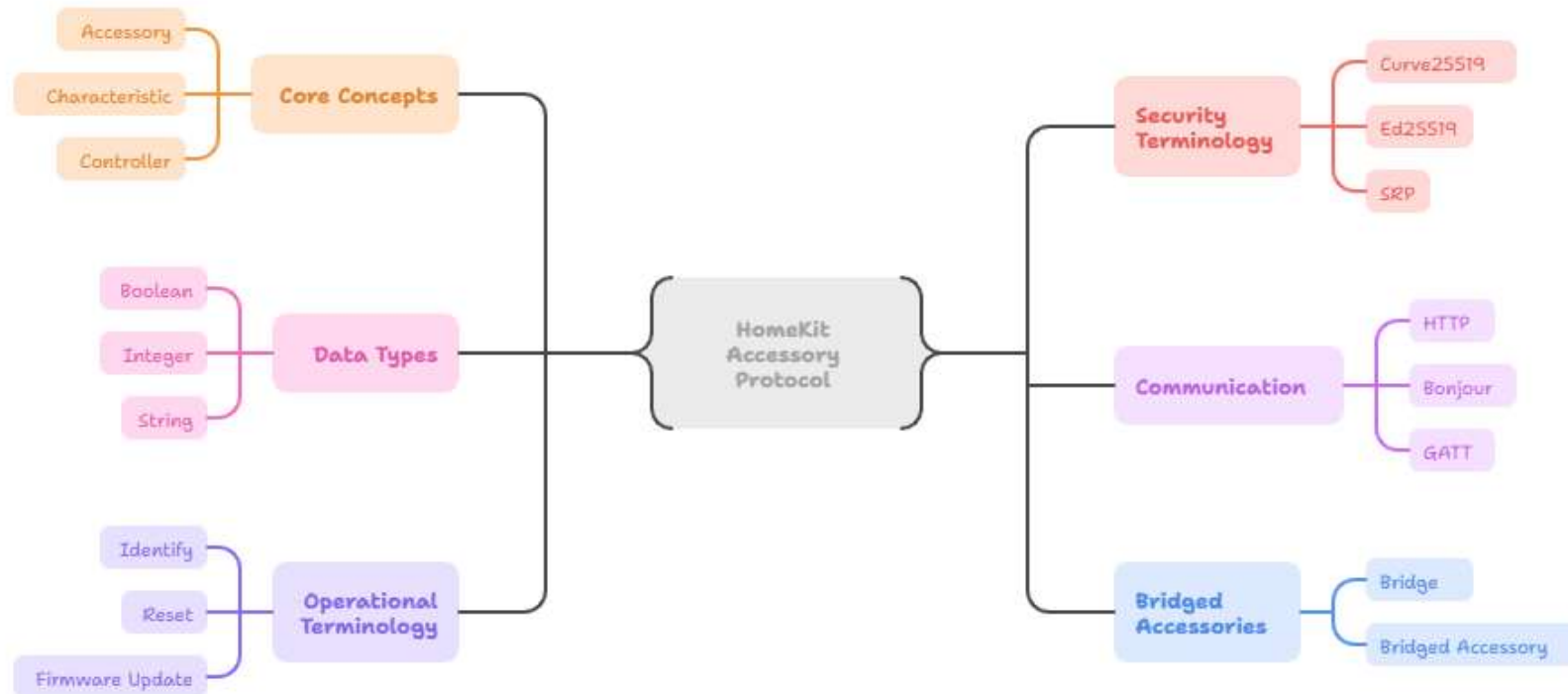
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Understanding HAP Terminology



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HomeKit Accessory Protocol Terminology



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HomeKit Security Framework



Pairing

Establishing secure connections between devices



Pairing ID

Unique identifiers for paired controllers



Pairing Setup

Initial process of pairing accessories



SRP

Secure password-based authentication protocol



Encryption

Protecting data confidentiality during transmission

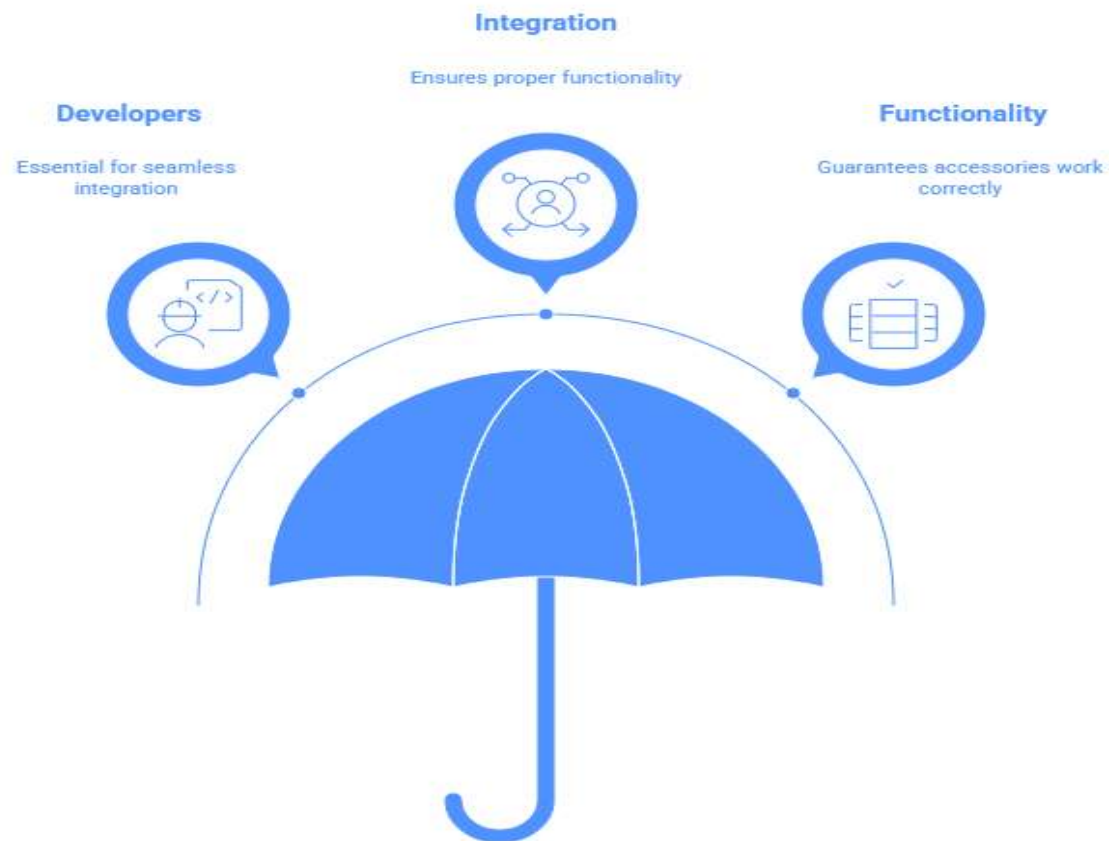


Authentication

Verifying the identity of devices

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Understanding HomeKit Terminology

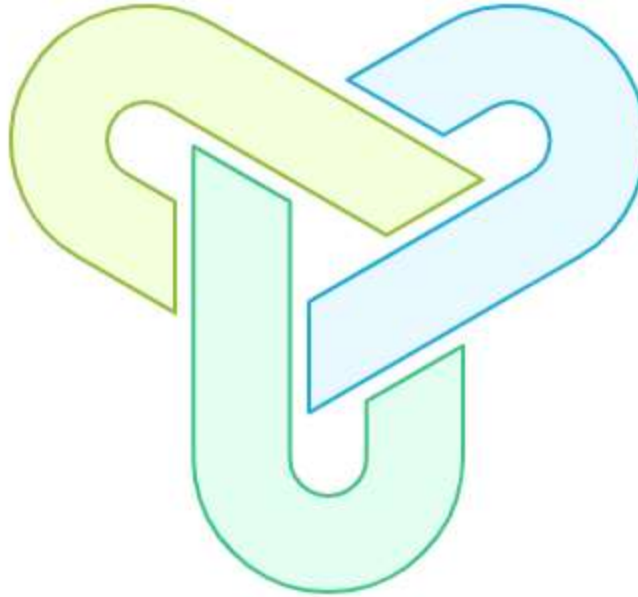


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HomeKit Bridge Functionality

Single Connection

Provides a unified HomeKit connection for various devices




Accessory Hosting

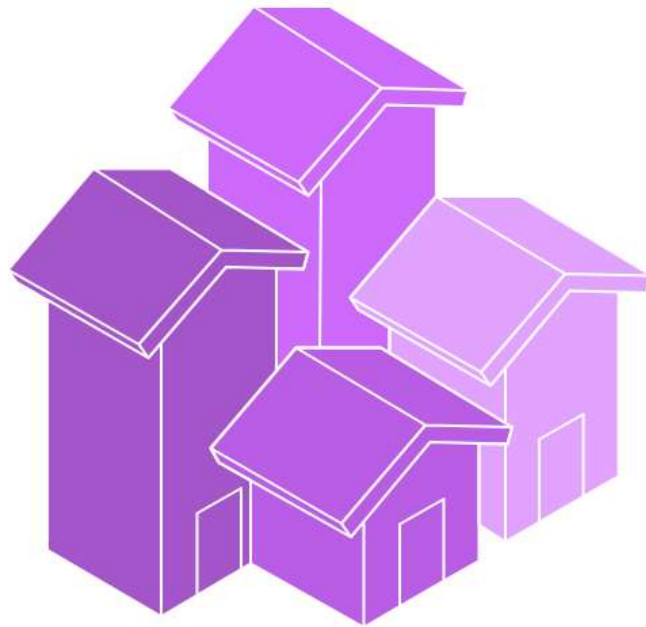
Allows multiple non-HomeKit devices to be controlled

Protocol Translation

Enables communication with devices using Zigbee or Z-Wave

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HAP Communication Protocols



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- 1

Bonjour
Apple's Zeroconf implementation for service discovery. Accessories advertise their presence, allowing controllers to connect.
- 2

IP
The primary network protocol used by HAP. Accessories and controllers communicate over IP networks.
- 3

mDNS
A protocol used by Bonjour for service discovery on local networks.
- 4

Thread
A low-power, mesh networking protocol supported by HomeKit. Accessories communicate even without direct Wi-Fi.

HAP Protocol Components

Ecosystem Architecture
Outlines the overall design and interaction of HomeKit devices.

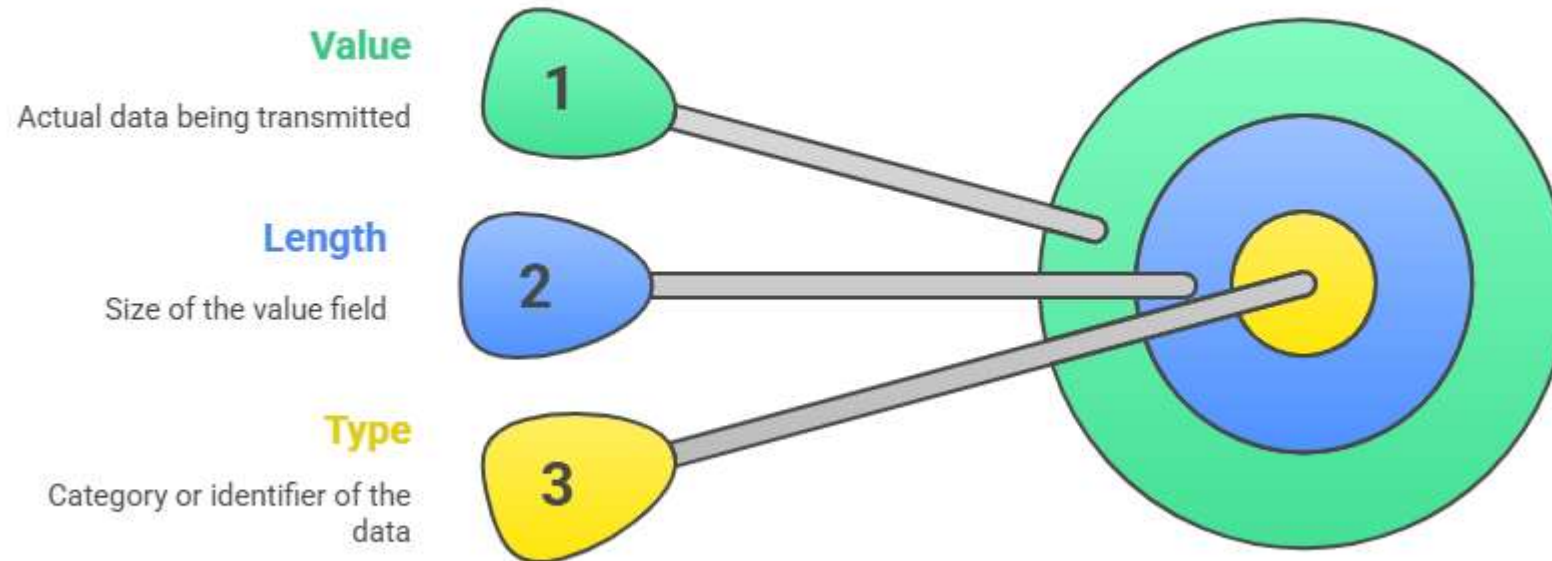
Message Format
Defines the structure and content of data exchanged between devices.



Security Mechanisms
Ensures secure communication and data protection.

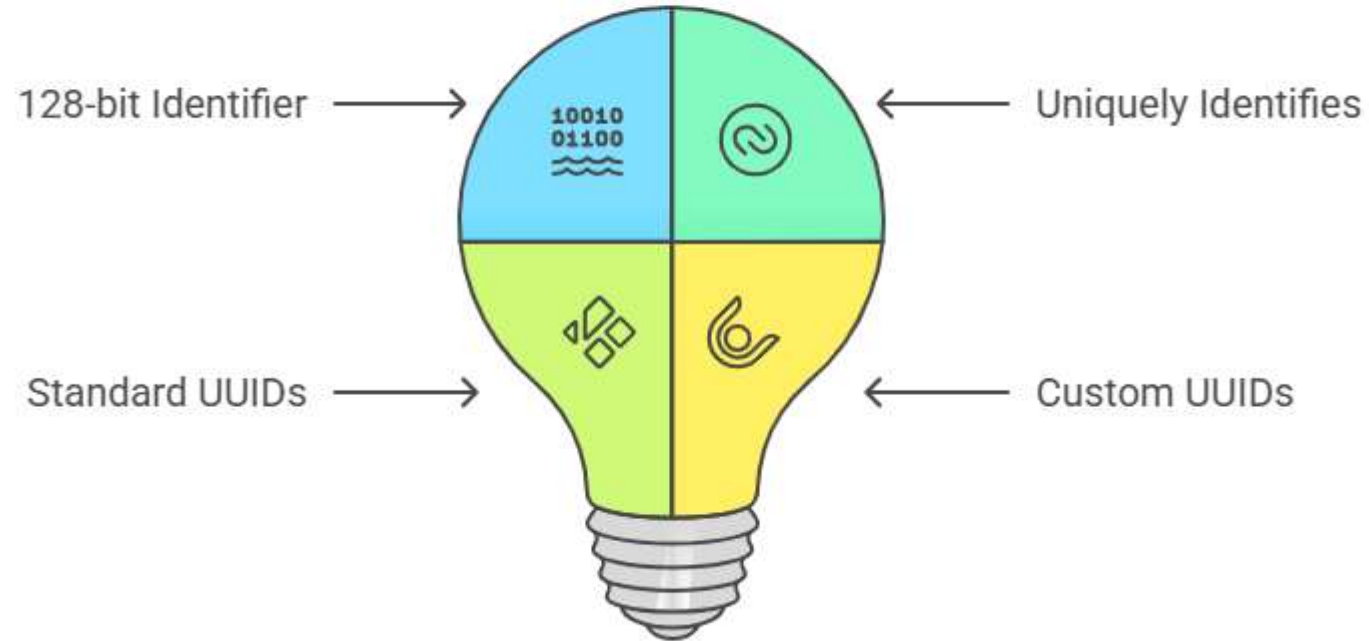
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TLV Data Encoding Scheme



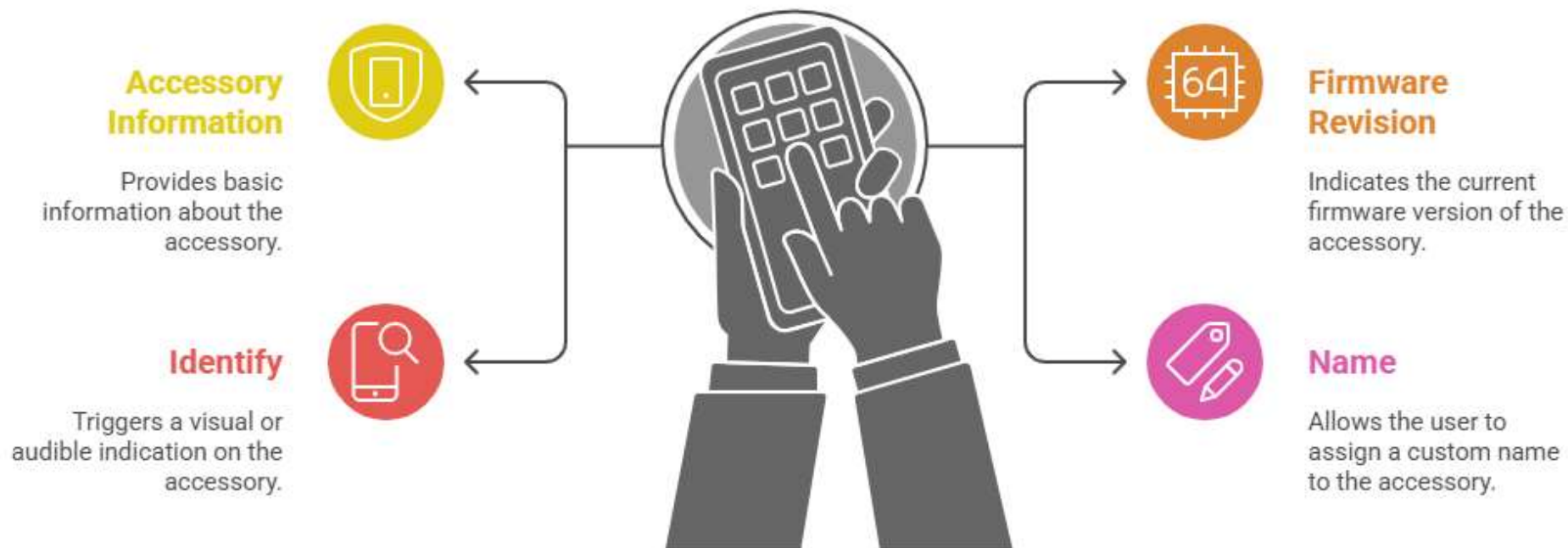
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Understanding UUIDs in HAP



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Accessory Configuration



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How should the characteristic be configured?

Valid Values

Defines the acceptable range for the characteristic's value.

Write

Enables the controller to modify the characteristic's value.

Units

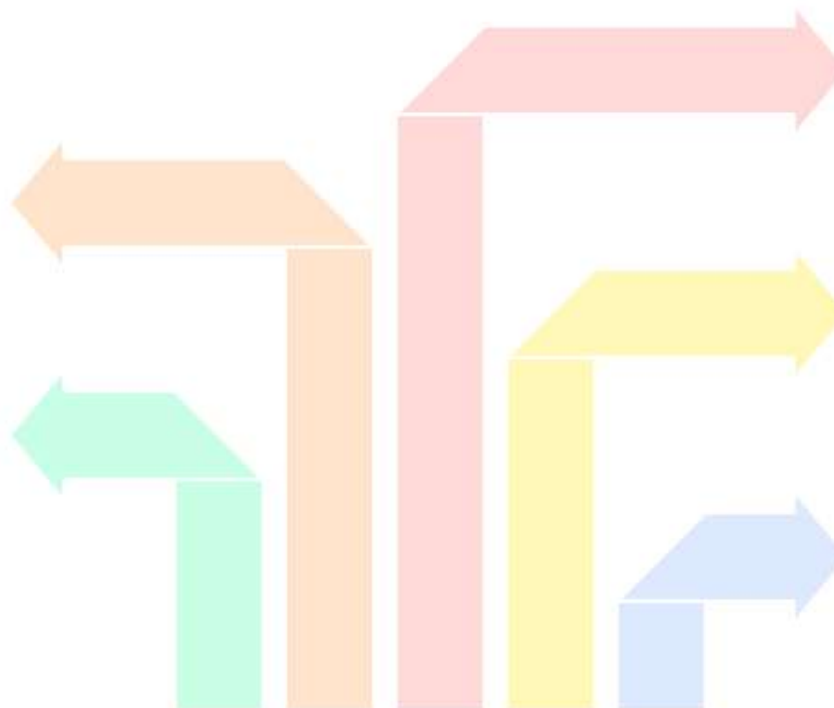
Specifies the measurement units for the characteristic.

Notify

Sends updates to the controller when the characteristic changes.

Read

Allows the controller to retrieve the characteristic's value.



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Home Hub Explained

What is a Home Hub?

An Apple device (HomePod, Apple TV, or iPad) that controls HomeKit accessories remotely and automates their behavior.

What does it do?

It allows users to control their accessories even when they are not at home.



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Summary

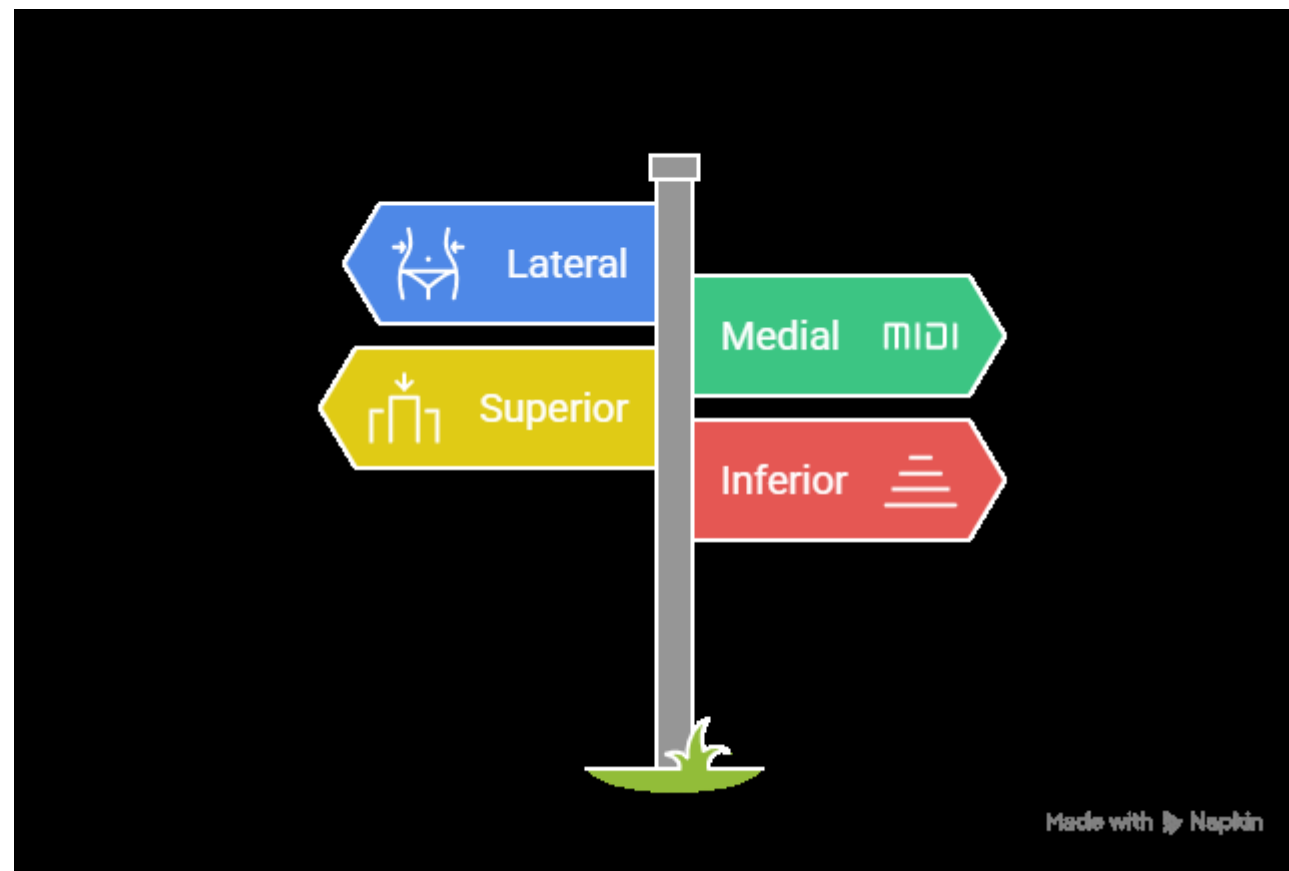


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ASSESSMENTS

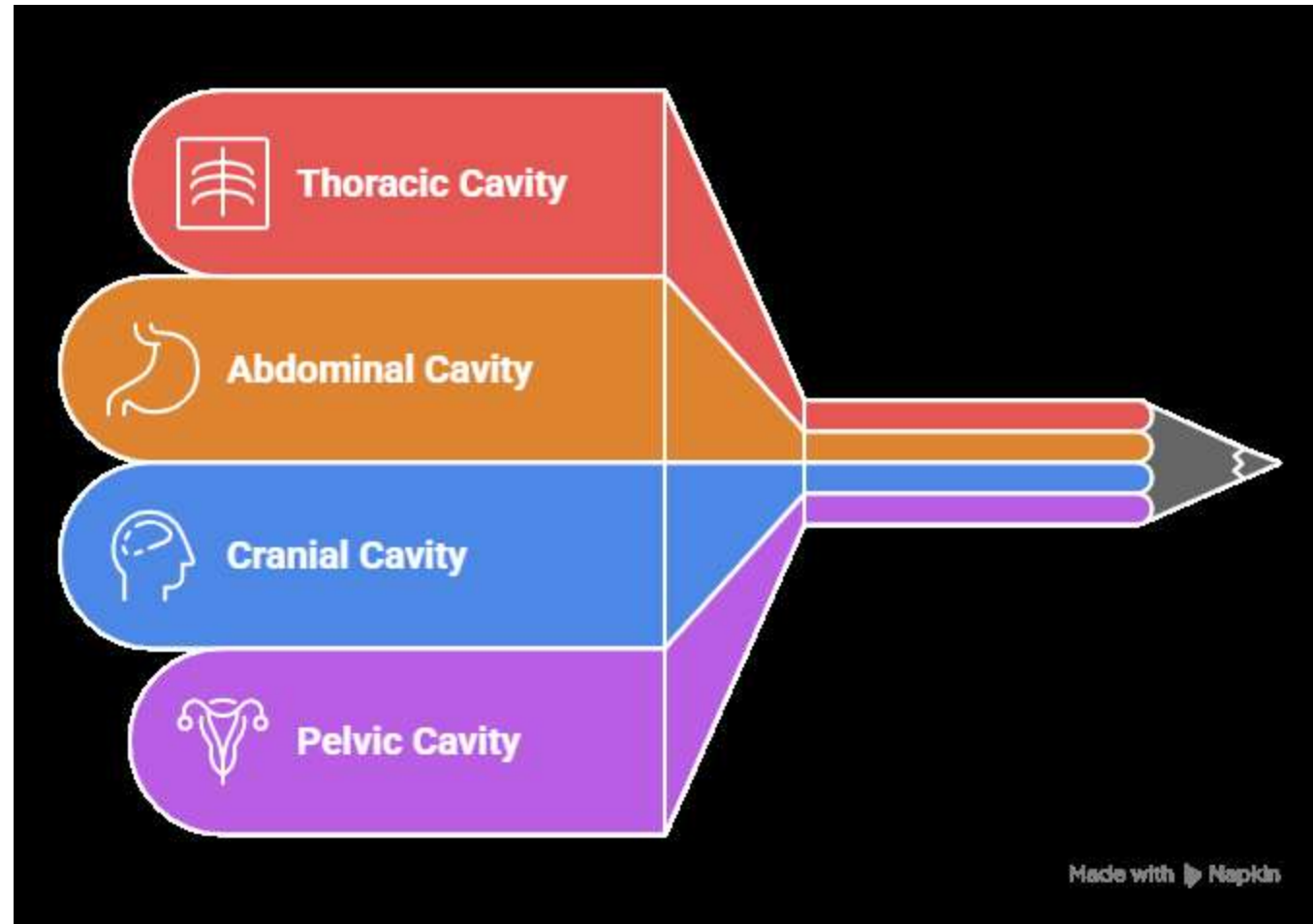


1. The heart is located _____ to the lungs.



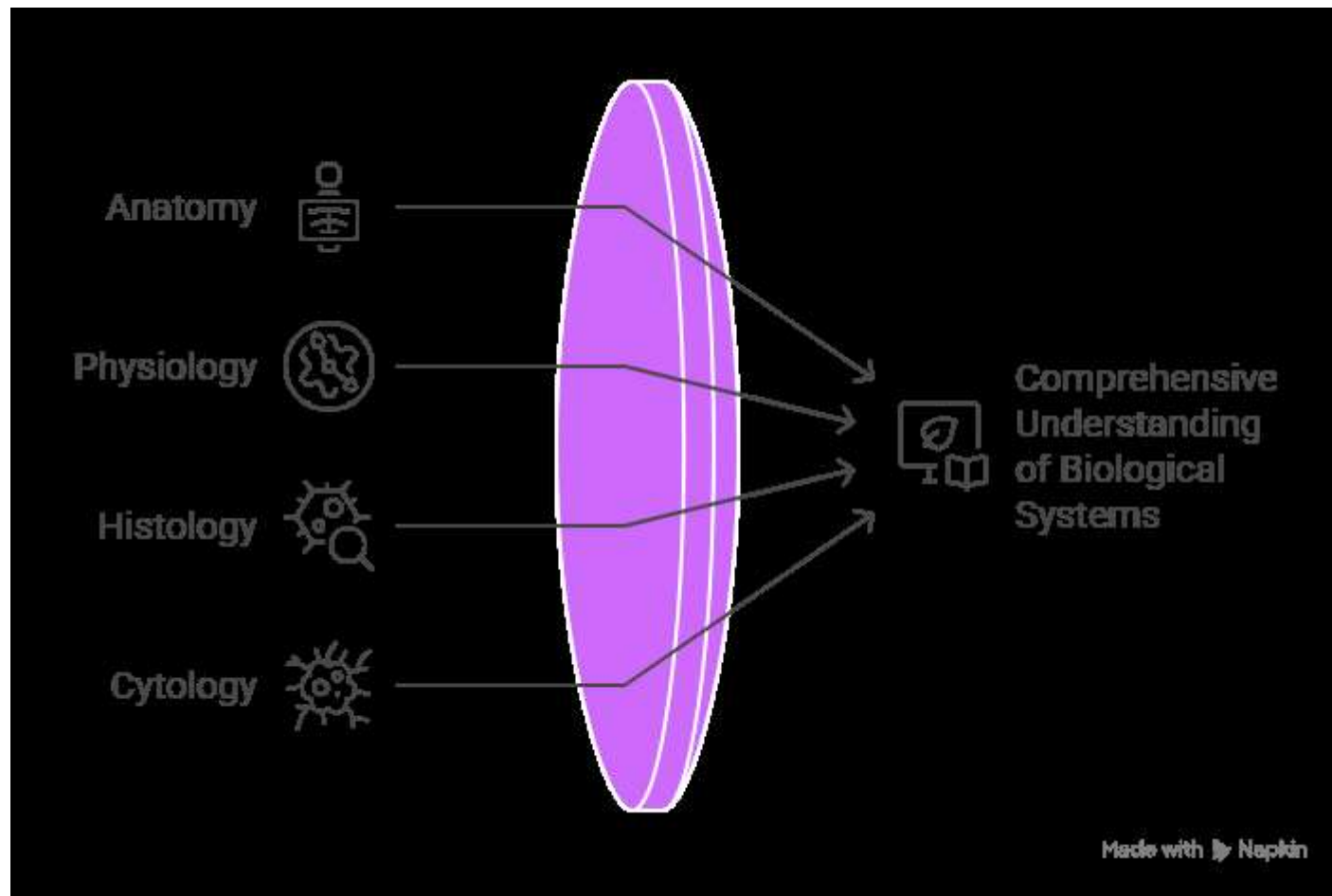
2. Which of the following cavities contains the brain?







3. The study of the function of the body and its parts is called:



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*Thank
you!*