

SNS COLLEGE OF PHARMACY AND HEALTH SCIENCES

Affiliated To The Tamil Nadu Dr. MGR Medical University, Chennai

Approved by Pharmacy Council of India, New Delhi.

Coimbatore -641035

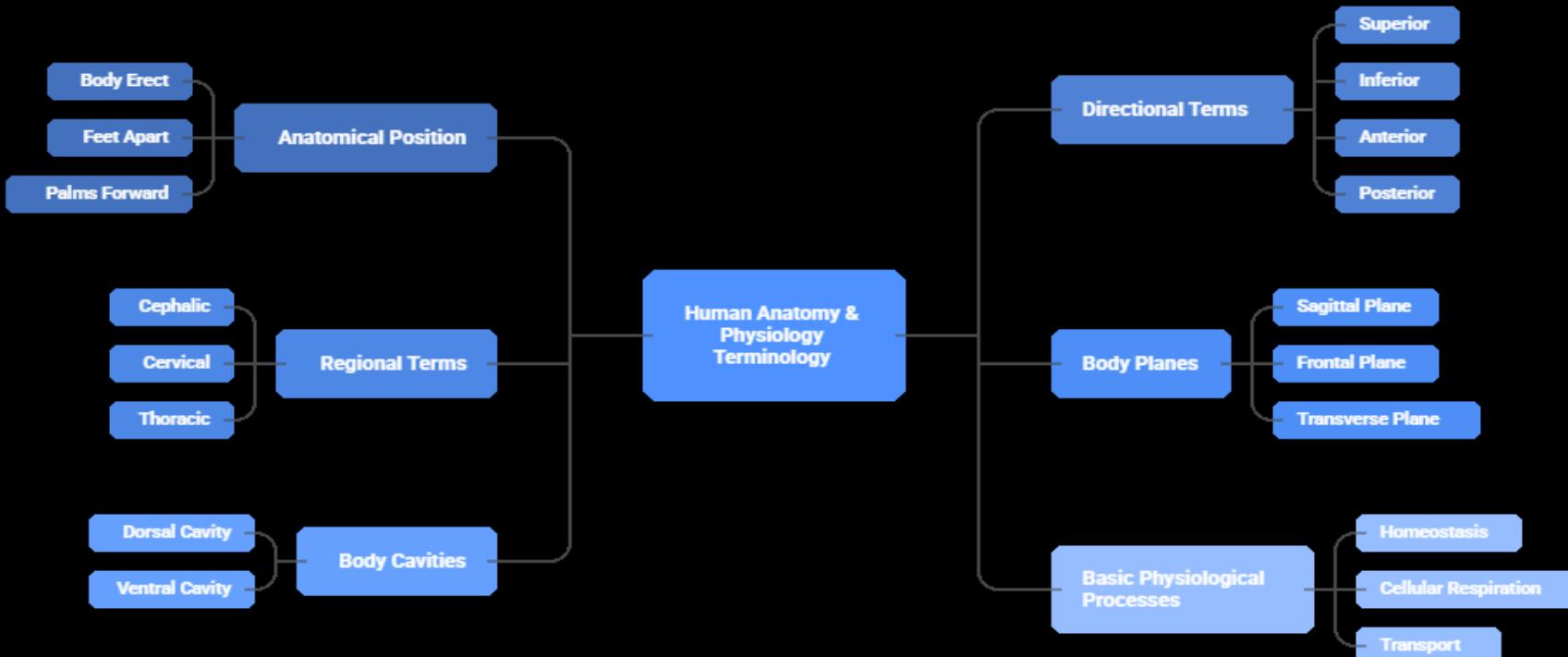


COURSE NAME : HUMAN ANATOMY AND PHYSIOLOGY (ER20-14T)

I D. PHARM

TOPIC 1 : VARIOUS TERMINOLOGIES USED IN HUMAN ANATOMY AND PHYSIOLOGY

Mindmap for Human Anatomy & Physiology Terminology



Made with  Napkin

Understanding HAP Terminology

Data Stream Transport

Mechanism for transferring large data



HAP Status Codes

Numerical codes indicating operation results

Linked Services

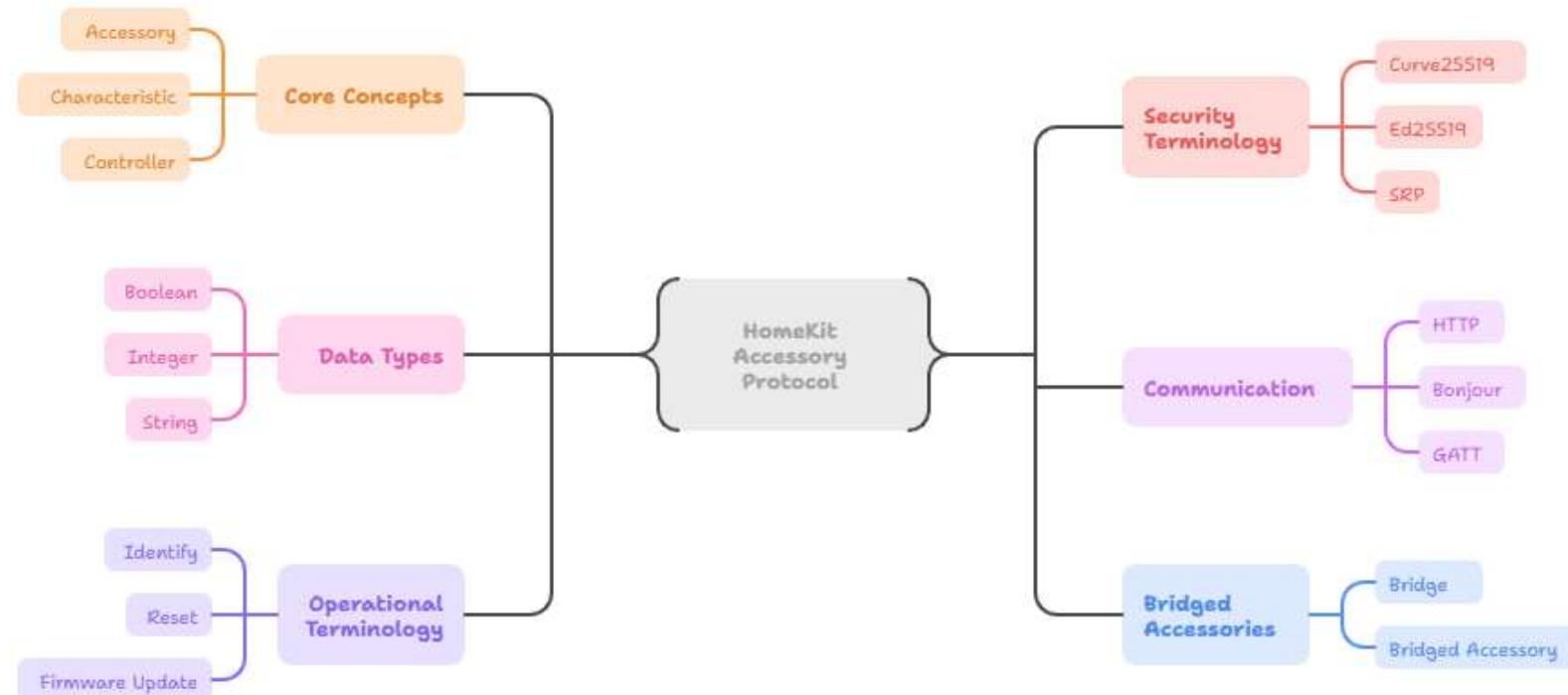
Mechanism for associating multiple services

Characteristic Metadata

Additional information about characteristics

Made with  Napkin

HomeKit Accessory Protocol Terminology



Made with  Napkin

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

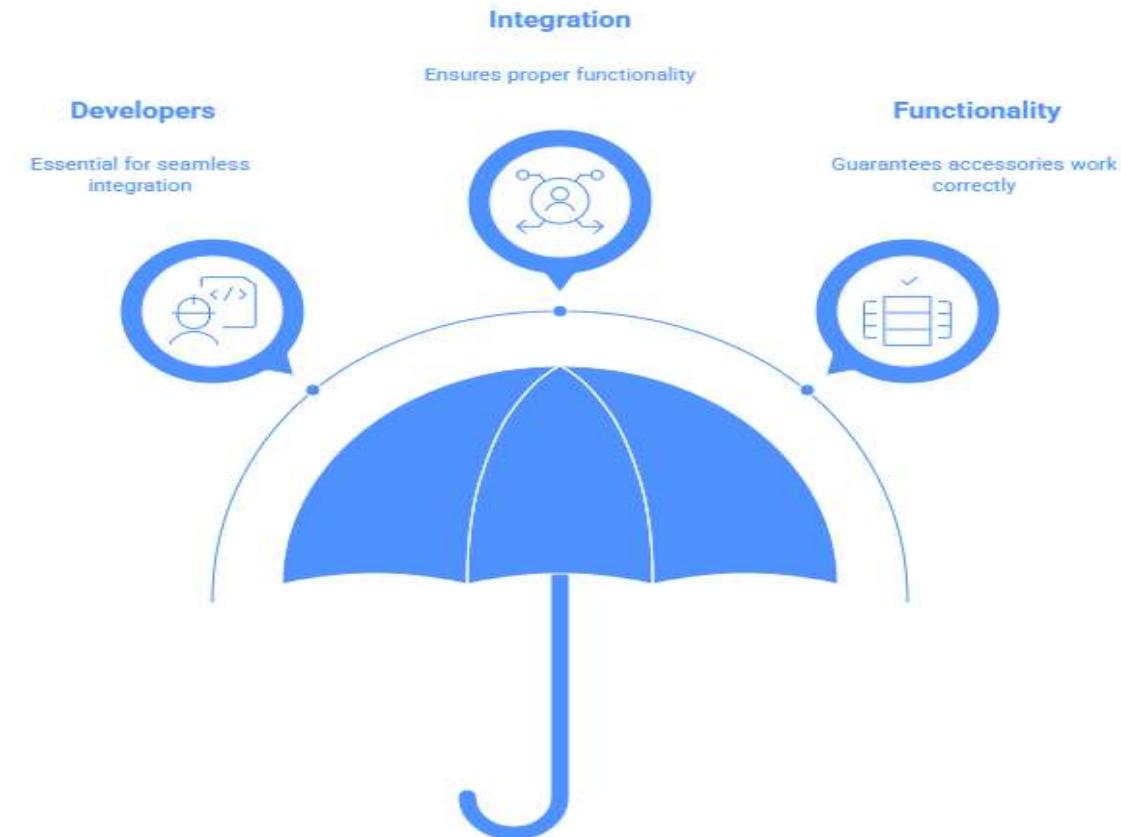


Authentication

Verifying the identity of devices

Made with  Napkin

Understanding HomeKit Terminology

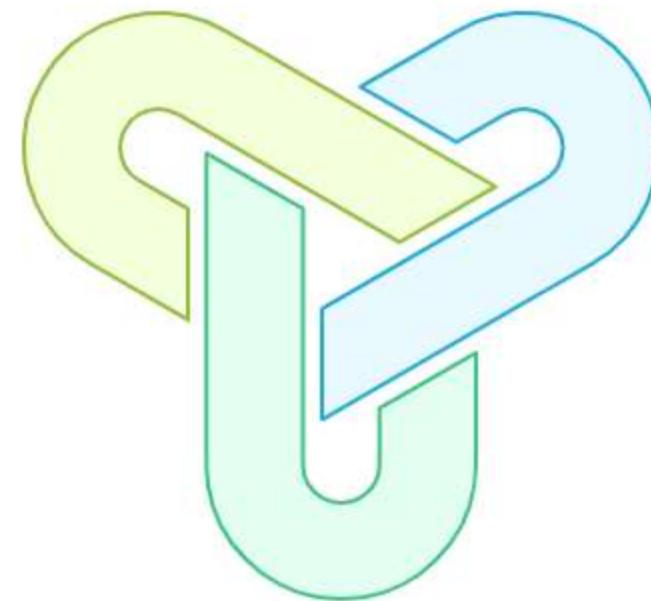


Made with ➡ Napkin

HomeKit Bridge Functionality

Single Connection

Provides a unified HomeKit connection for various devices



Accessory Hosting

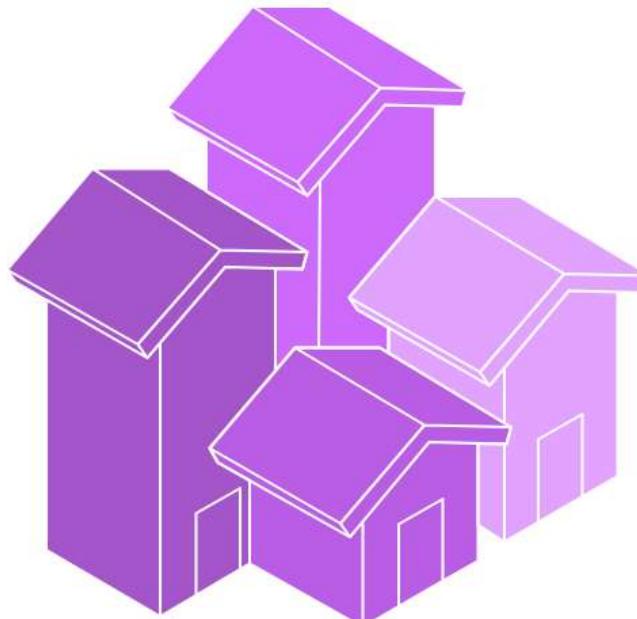
Allows multiple non-HomeKit devices to be controlled

Protocol Translation

Enables communication with devices using Zigbee or Z-Wave

Made with  Napkin

HAP Communication Protocols



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.

Made with  Napkin

HAP Protocol Components

Ecosystem Architecture

Outlines the overall design and interaction of HomeKit devices.



Message Format

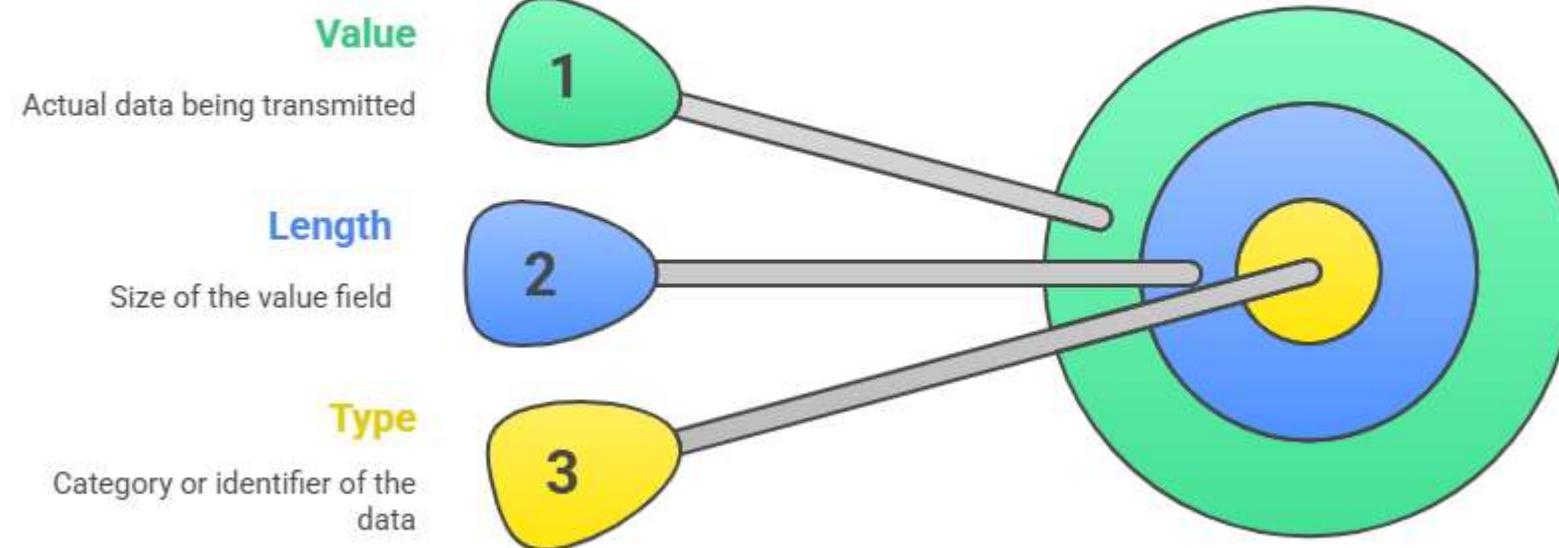
Defines the structure and content of data exchanged between devices.

Security Mechanisms

Ensures secure communication and data protection.

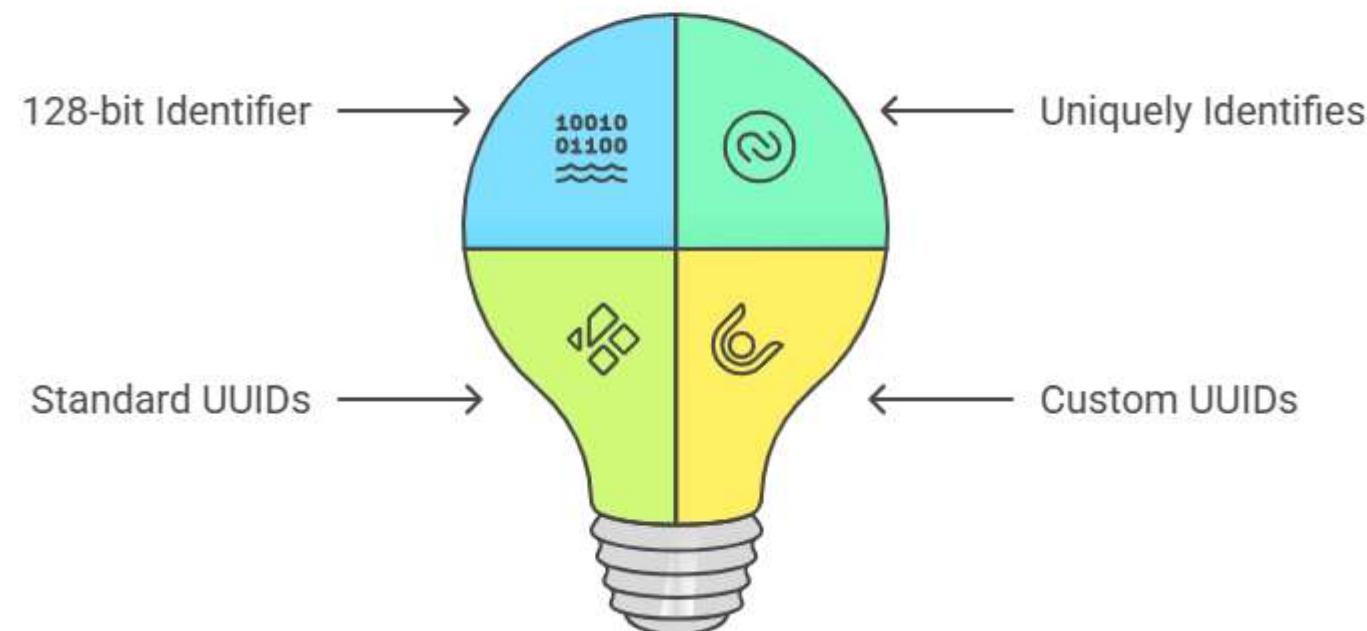
Made with  Napkin

TLV Data Encoding Scheme



Made with  Napkin

Understanding UUIDs in HAP



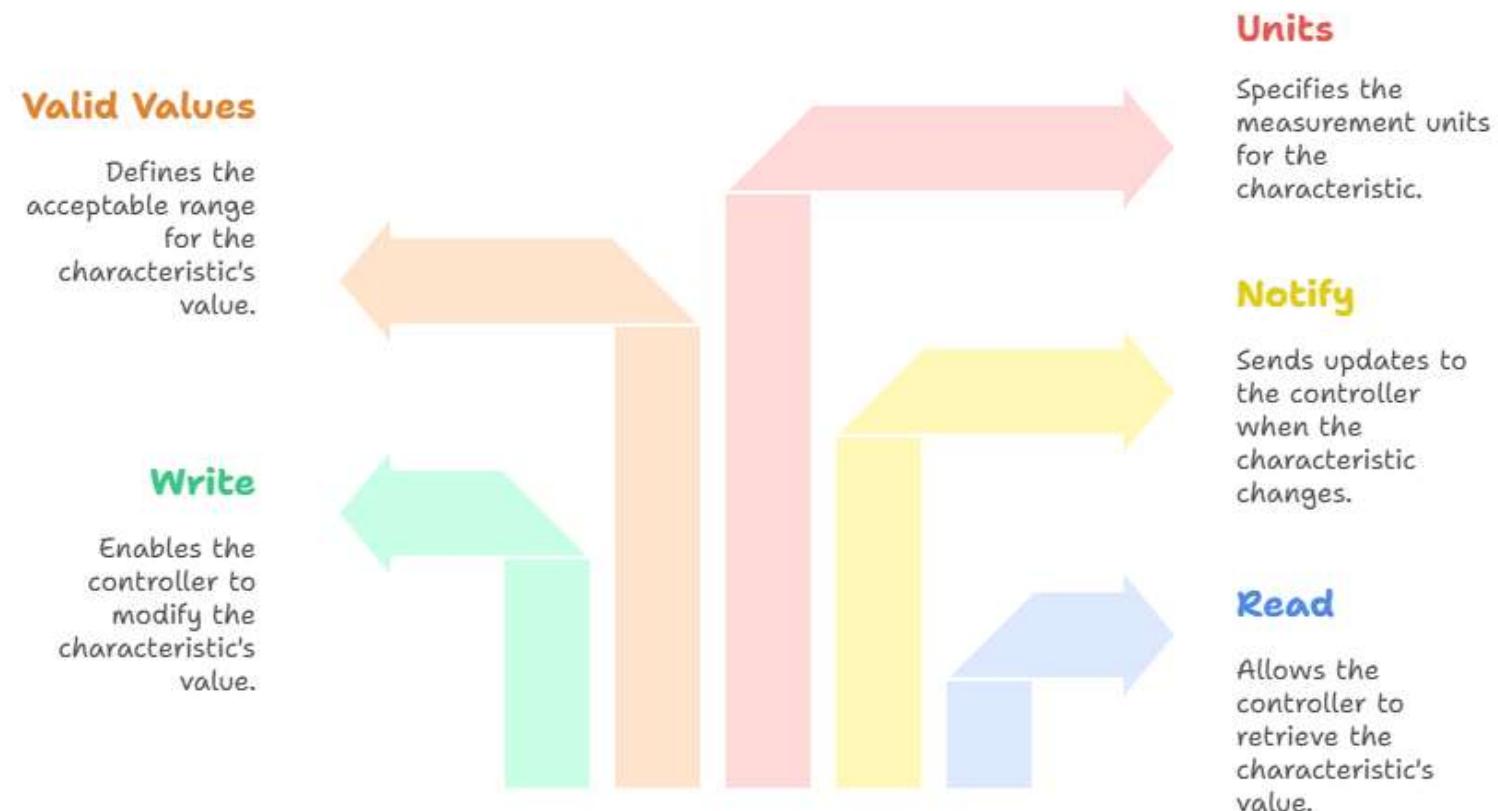
Made with  Napkin

Accessory Configuration



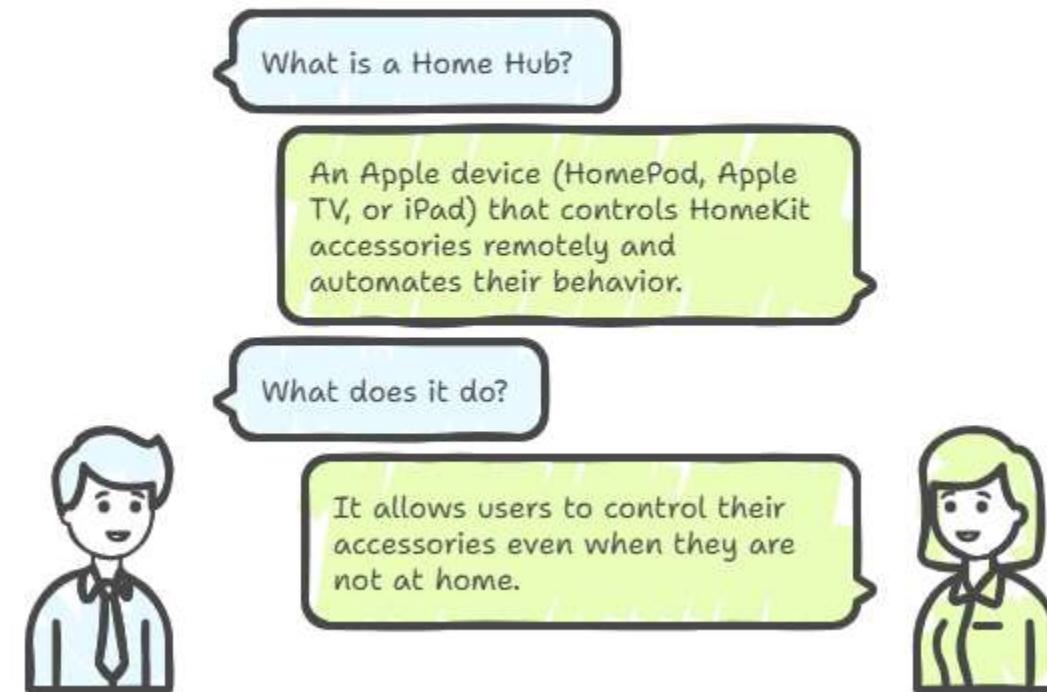
Made with  Napkin

How should the characteristic be configured?



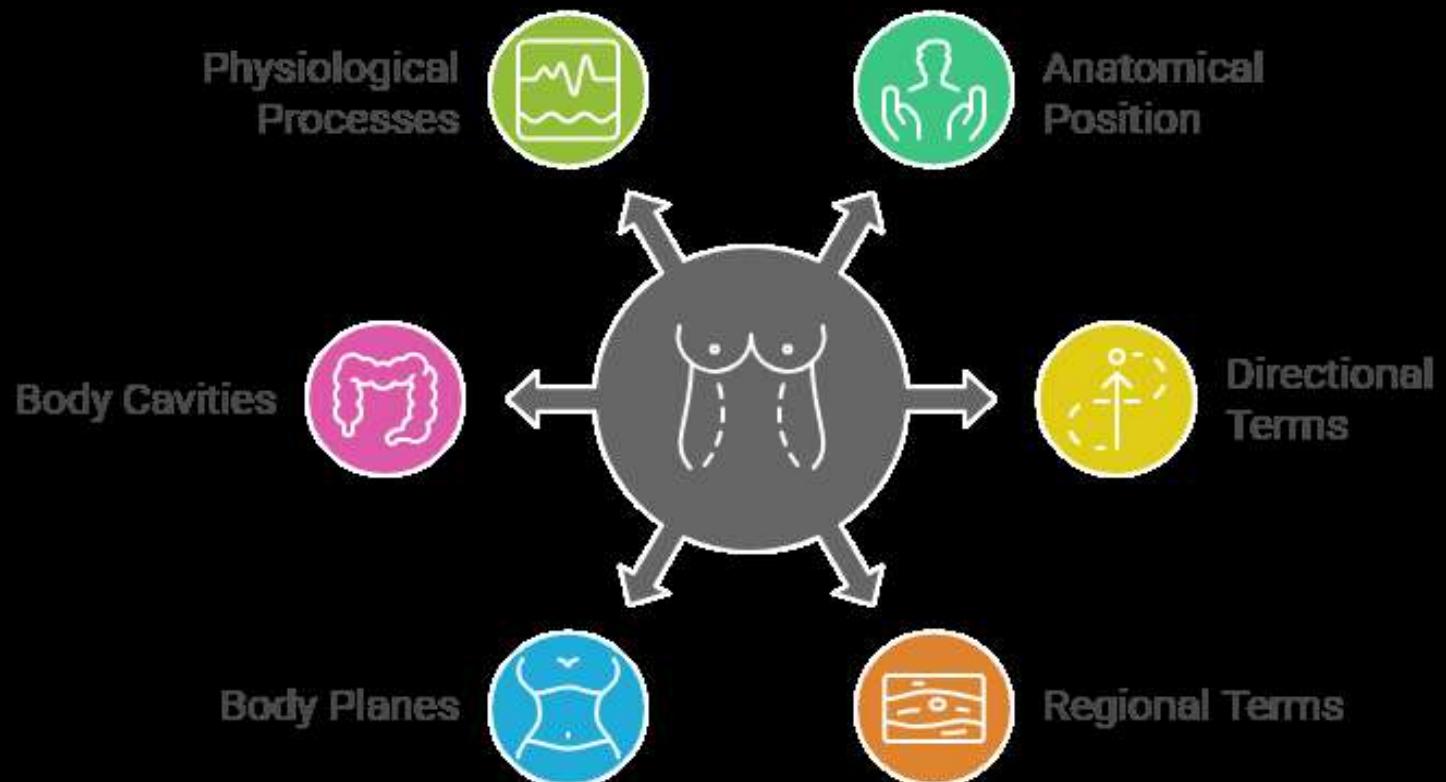
Made with  Napkin

Home Hub Explained



Made with  Napkin

Summary

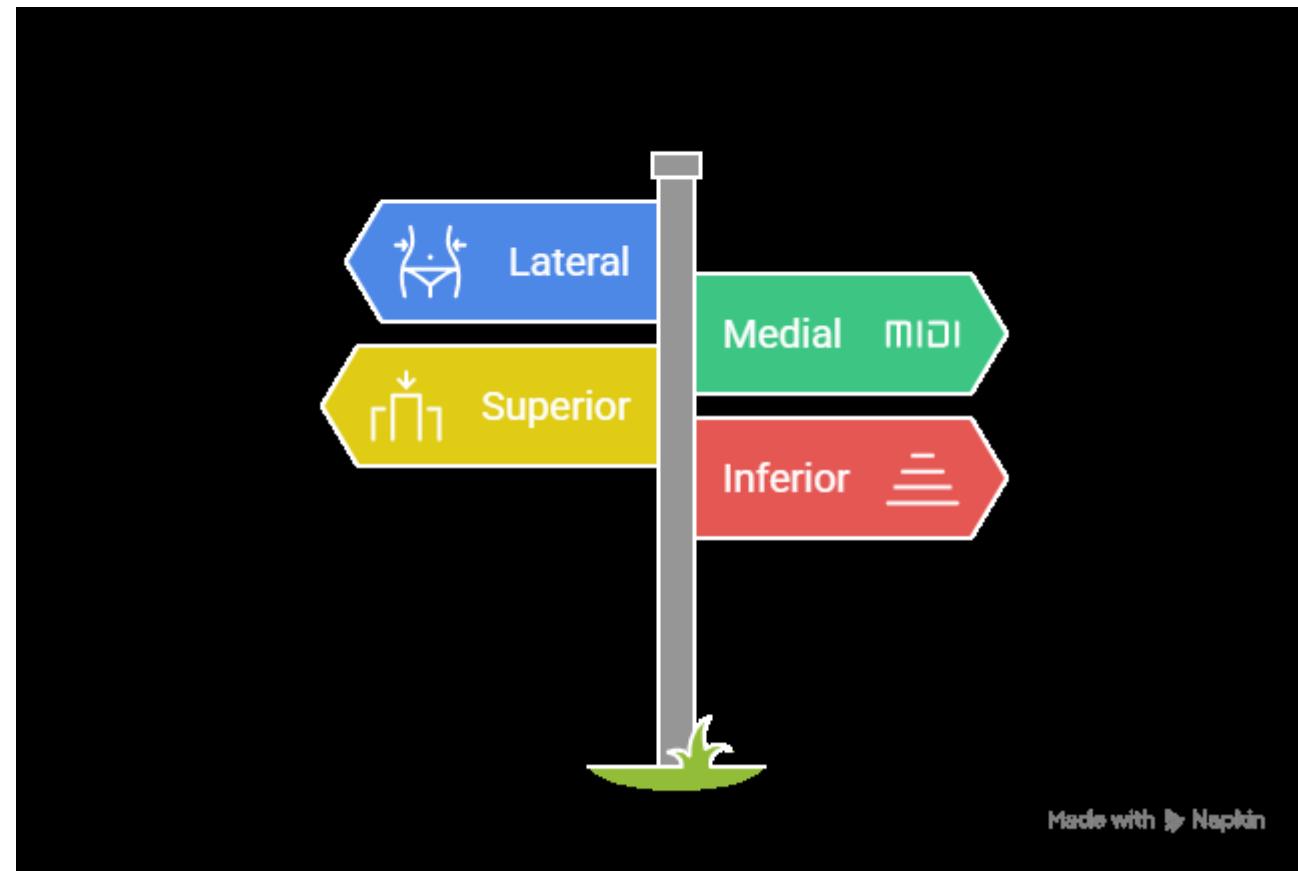


Made with  Napkin

ASSESSMENTS

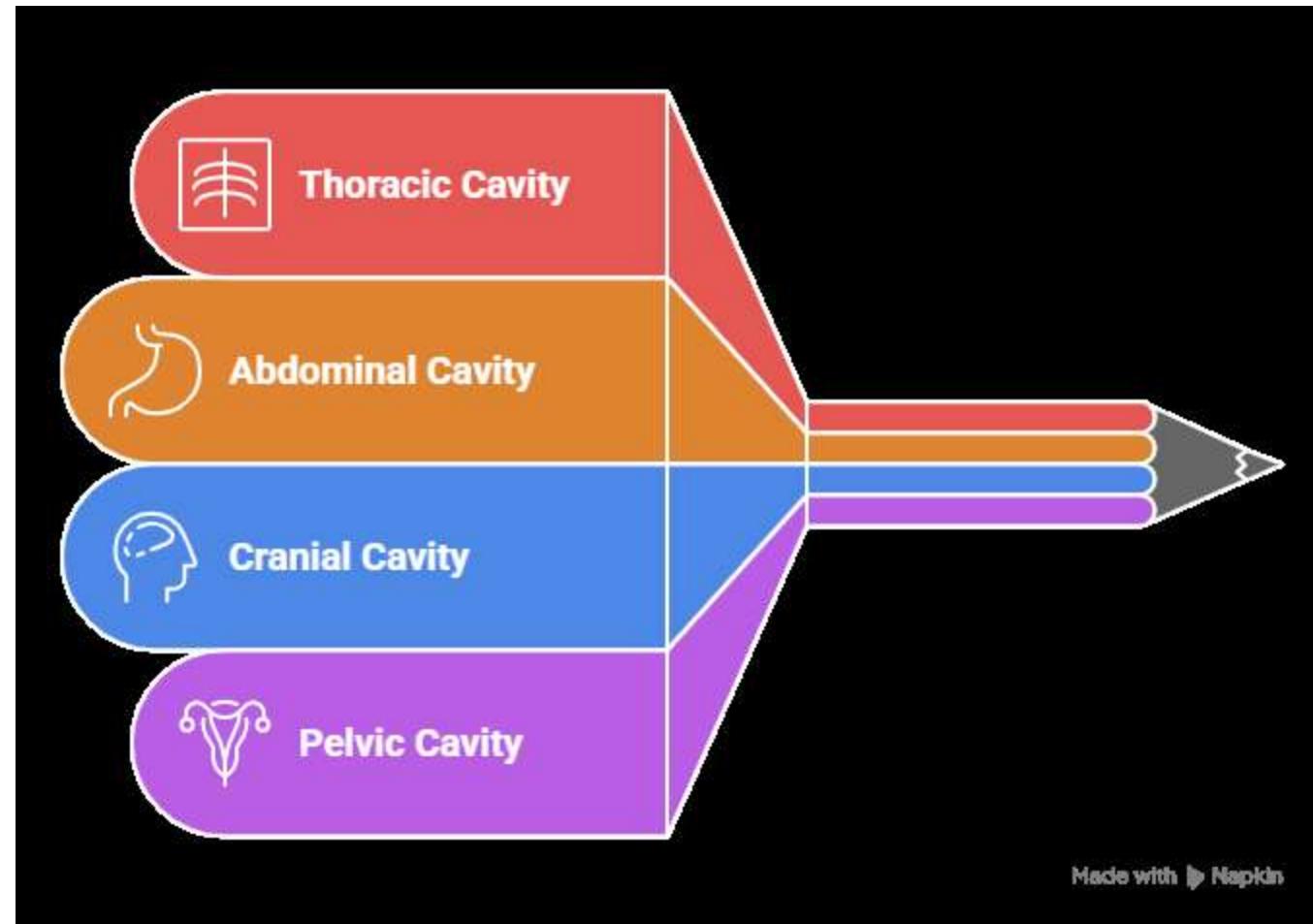


1. The heart is located _____ to the lungs.



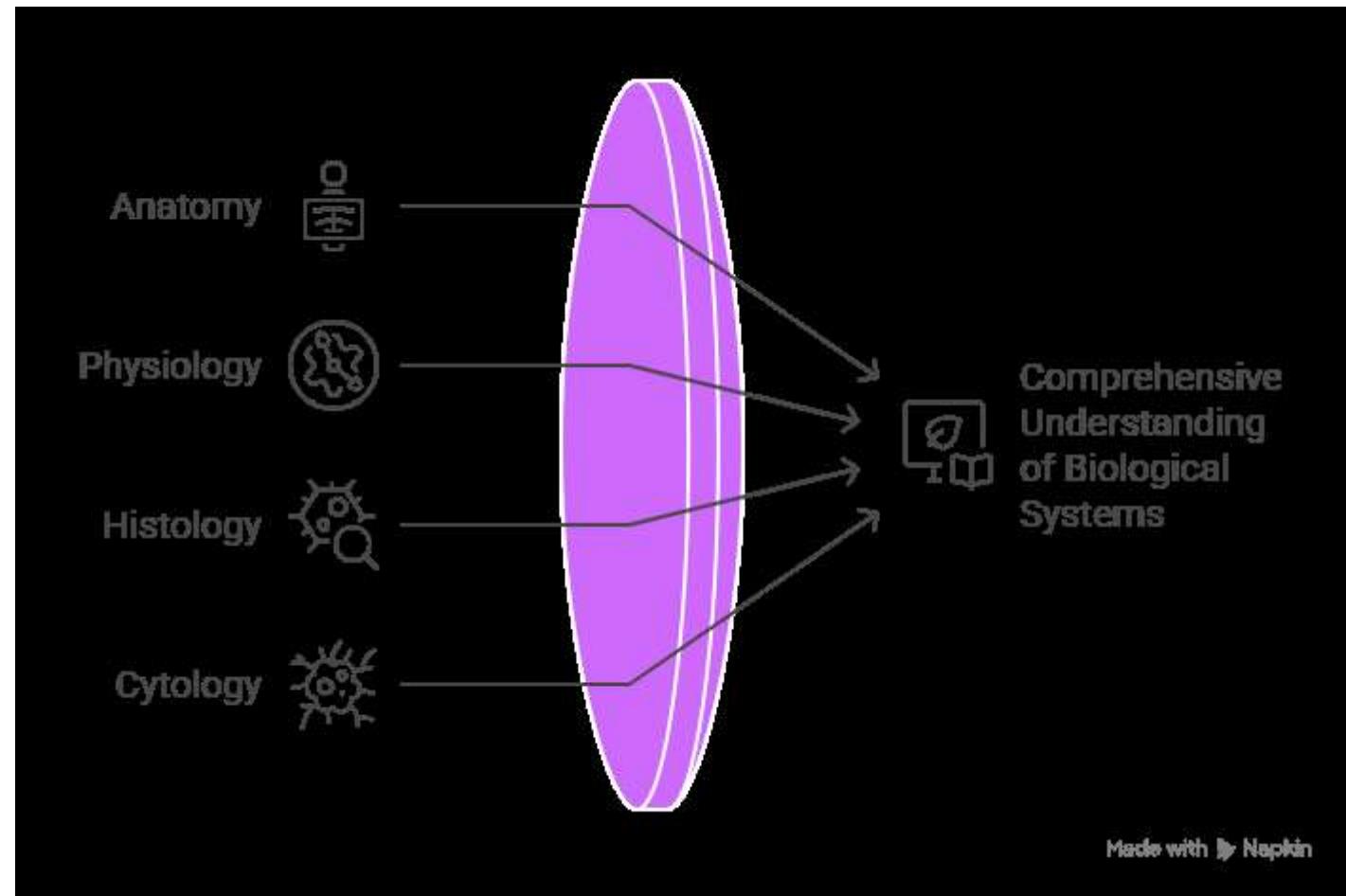
2. Which of the following cavities contains the brain?







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



REFERENCES

1. Tortora GJ, Derrickson BH. Principles of anatomy and physiology. 15th ed. Hoboken (NJ): John Wiley & Sons; 2017.
2. Guyton AC, Hall JE. Textbook of medical physiology. 14th ed. Philadelphia: Elsevier; 2021.
3. Ross MH, Pawlina W. Histology: a text and atlas with correlated cell and molecular biology. 8th ed. Philadelphia: Wolters Kluwer; 2020.
4. Moore KL, Dalley AF, Agur AMR. Clinically oriented anatomy. 8th ed. Philadelphia: Wolters Kluwer; 2018.
5. Standring S, editor. Gray's anatomy: the anatomical basis of clinical practice. 42nd ed. London: Elsevier; 2020.

Thank
You!