



# **Advanced Operating system ECE 519**

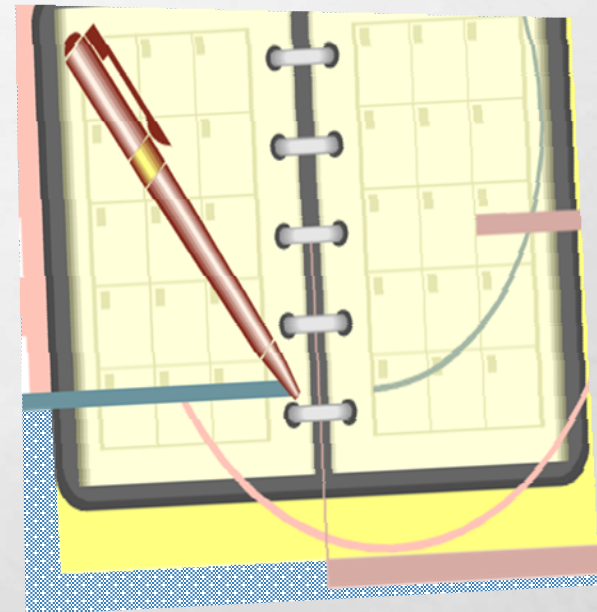
## **Android Marshmallow 6.0 Memory Management**

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# OUTLINE



- What is Memory Management unit ?
- What is the Task of MMU
- What are MMU Techniques
- How does MMU manage the Apps?
- What is android.?
- What is Marshmallow 6.0?



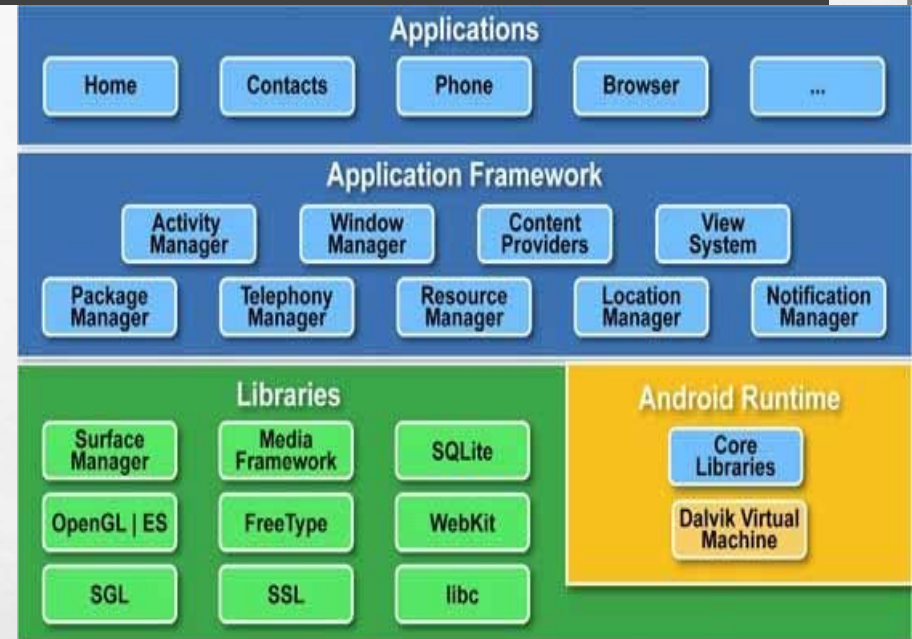
**MMU: Memory Management Unit**

# Introduction To Android



**Android:** is mobile platform consists

- 1-Operating System
- 2-Middleware
- 3- Key application



**Operating System (Linux Kernel)**

Memory Management      Resource Management      Drivers Management      Power Management

## Hardware

# Overview of Marshmallow 6.0

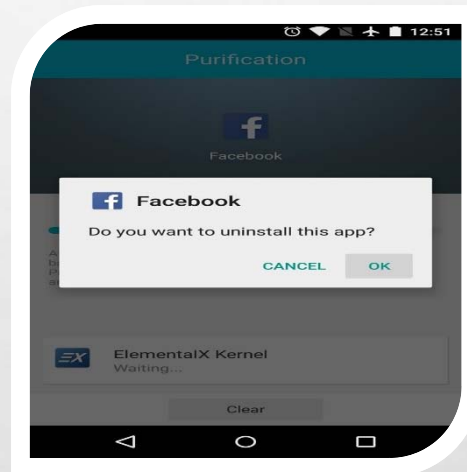


**Marshmallow 6.0** : is the sixth version of the Android operating system with codenamed **M**

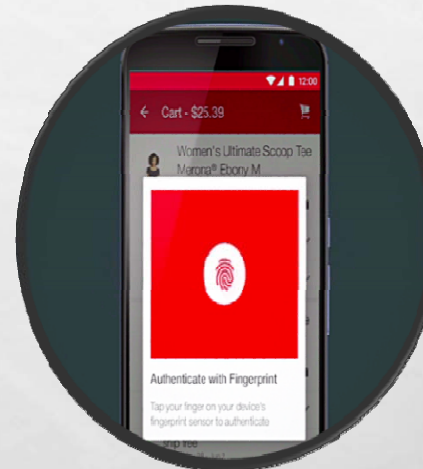
These are some of the advances made in Marshmallow 6



**Mobile Payment**



**App Permission**



**Fingerprint Support**



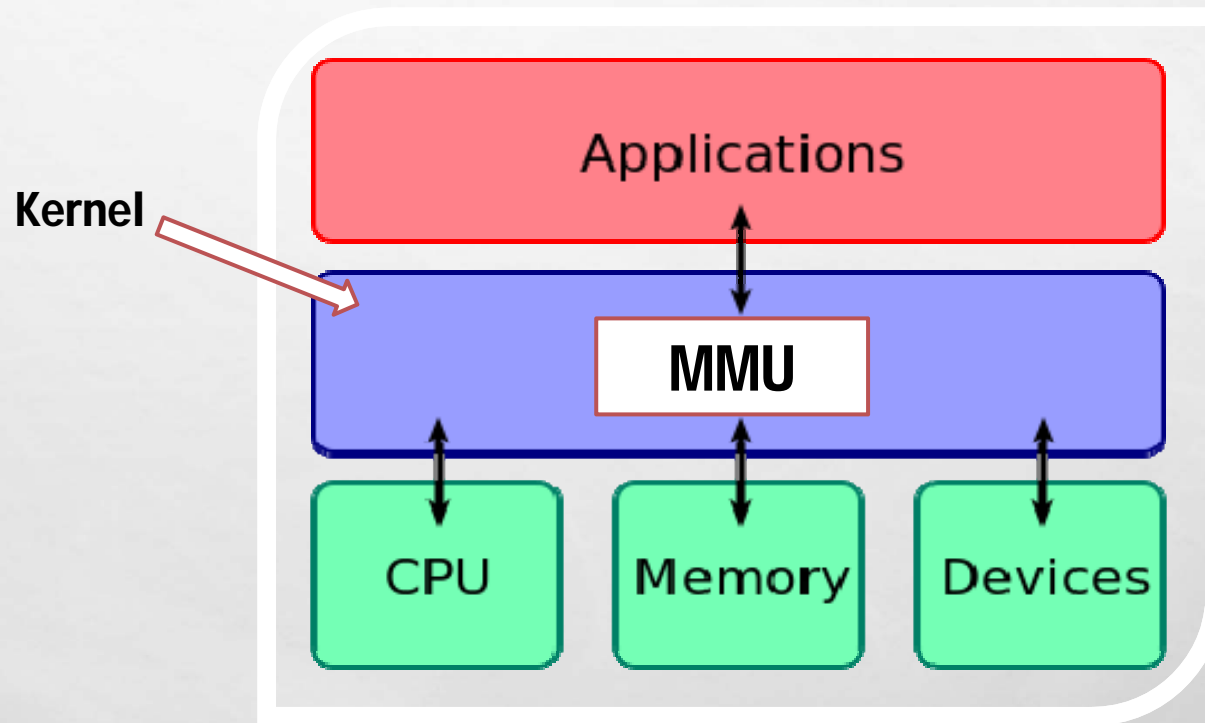
**Power & Charging**



# Memory Management Unit



Memory management unit : is the process of controlling and coordinating the Android memory .



# Task of Memory Management Unit



There are five tasks

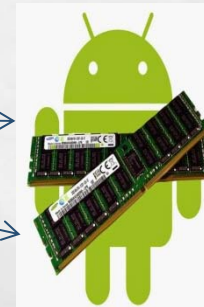
Virtual Memory

Process1

Process2

MMU

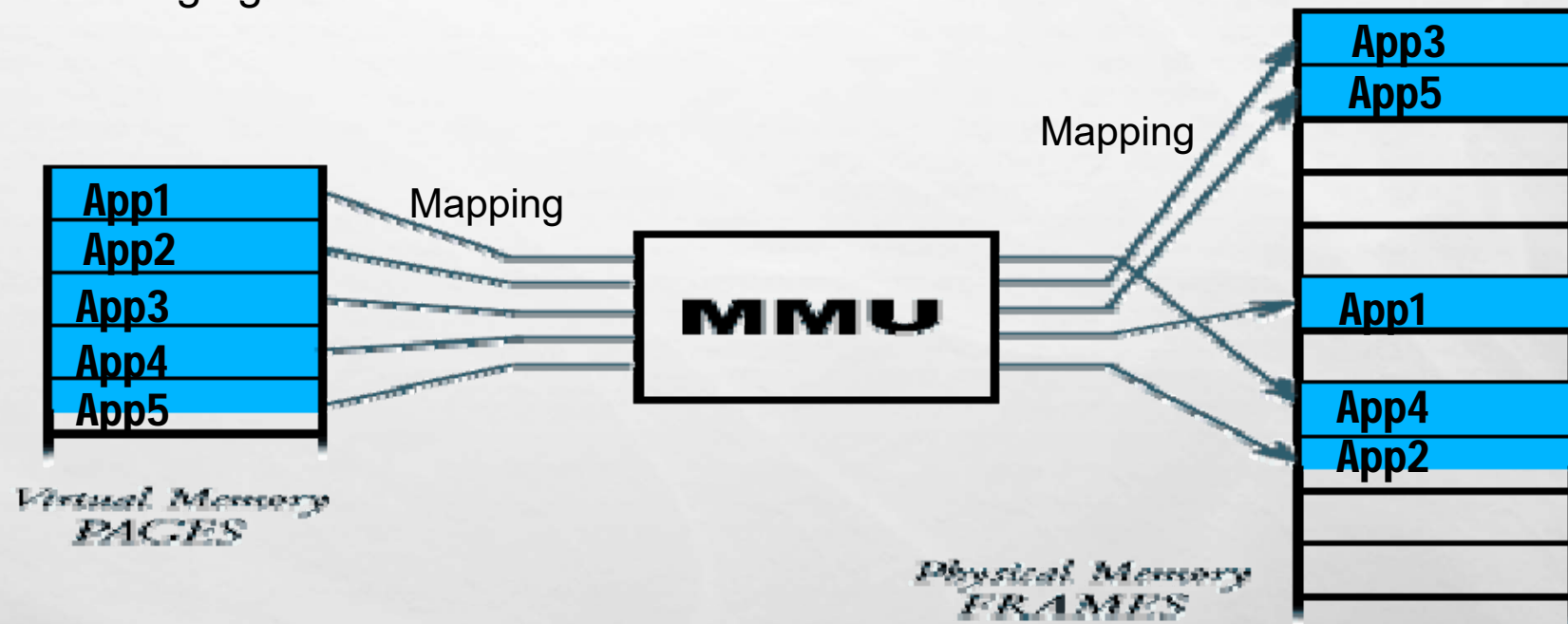
Physical memory



# Memory Management unit Techniques

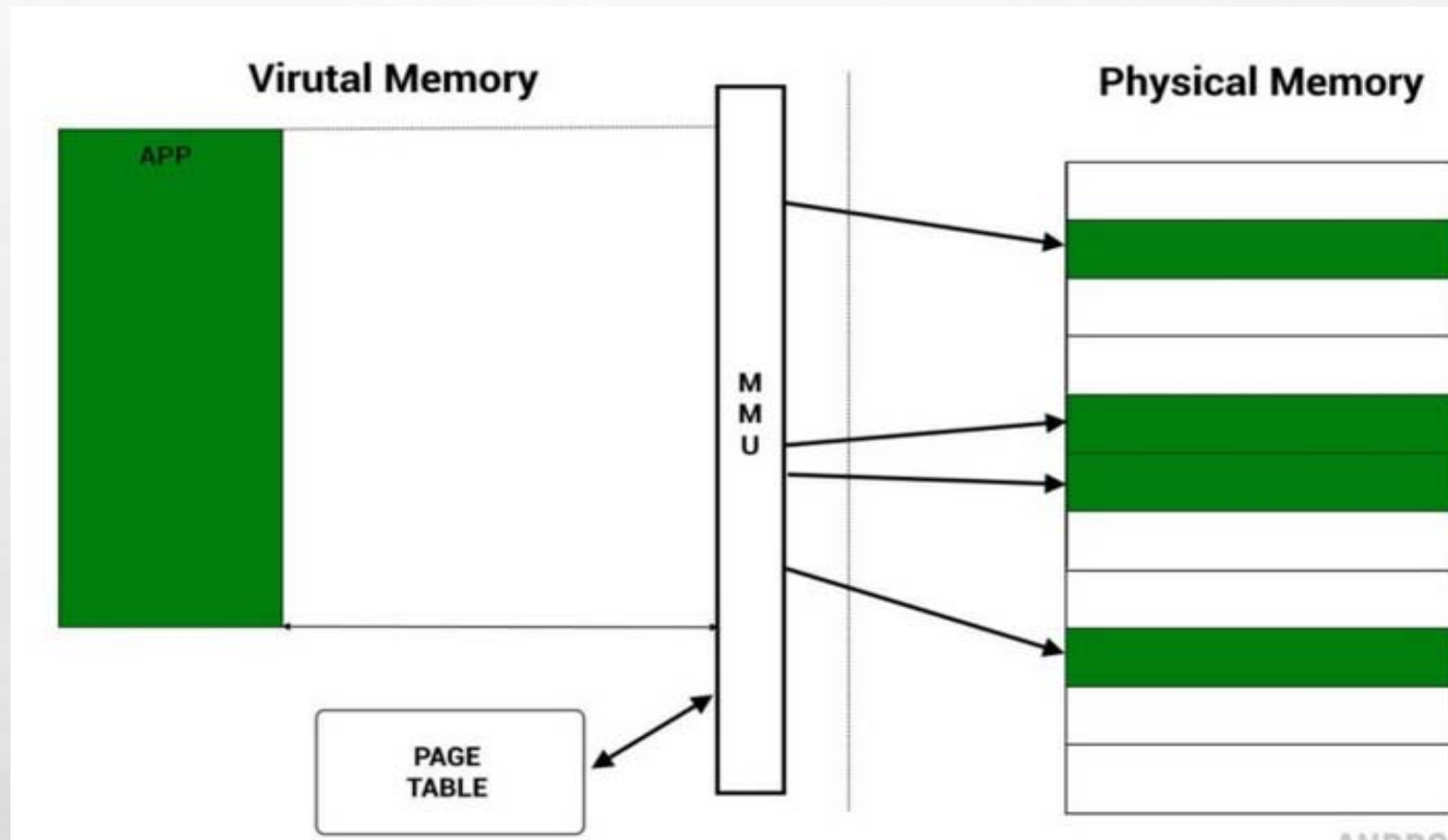


- Virtual memory
- Mapping
- Paging



MMU: Memory Management Unit

# HOW the MMU manages the Apps





# References



- <https://stackoverflow.com/questions/2298208/how-to-discover-memoryusage-of-my-application-in-android>
- [http://elinux.org/Android\\_Memory\\_Usage](http://elinux.org/Android_Memory_Usage)
- [https://www.youtube.com/watch?v=\\_CruQY55HOk](https://www.youtube.com/watch?v=_CruQY55HOk)
- <https://lwn.net/Articles/480055/>
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**Any Questions?**

Thank you  
Have a Peaceful Night