**Pointers & Memory Management**

**Fixed Data Structure** - Limited, Inefficient

**Dynamic Data Structure** - Expansive, Transformable

Dynamic - Request more space from memory pool

Return unused space to memory pool

A pointer refers to a block of memory

**Managing Dynamic Memory**

Allocate memory

Release - C → controlled by programmer, prone to leak Java → Garbage Collection

**Pointers and Dynamic Memory in C**

Pointer holds address

Type \*name

Address - &name

**Garbage Collection**

Reference Counts

Mark & Sweep

Generational Garbage Collectors