Notes for Coursework 1

What does malloc function do?

malloc returns a void pointer to the allocated space, or NULL if there’s insufficient memory available.

sbrk(int num);

sbrk() system call “sbrk are basic memory management system calls used in Unix and Unix-like operating systems to control the amount of memory allocated to the data segment for the process”.

Program break, sbrk(0) gives the address of the break point. So, sbrk(4096) results in moving the break point by 4096 bytes. If you store anything after breakpoint it results in*segmentation fault.*

Choosing the right Data Structure is important. We need to keep track of memory location’s which are free and which are not, size of each memory keeps on varying, need to keep track of last allocated memory. So, **linked list**suits better in this situation.

A metadata contains all the information of the block such as a boolean value **is\_free, size, memory address and pointer** which points to next memory block.

Graphical user interface, text, application

Description automatically generated

* void \*mem\_addr, is a void datatype with no associated data type with it.
* It can point to any data of any data type and can be type casted to any data type.

Text

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