

End of this week or early next week

- Linked lists
- Dynamic memory
- Structs

Week 8 Revision Sessions

- Sign up here:
 https://www.eventbrite.com/e/23t2-week-8-revision-sessions-tickets-675799653957?aff=oddtdtcreator
- Wednesday 2pm-4pm (online)
- Thursday 12pm-2pm (Ainsworth 201 - BYOD)

malloc()

- malloc -> Memory Allocation(allocate memory on the heap)
- Returns a pointer to the location on the heap
- We can decide how large the allocation

Calling malloc

```
- ptr = (cast-type*) malloc(byte-size)
```

Example:

```
#include <stdio.h>
int main(void) {
    malloc(1000);
    malloc(sizeof(int));
    malloc(sizeof(char) * 50);

return 0;
}
```

Heap memory cheat sheet

- Allocate memory: malloc()
- Deallocate: free()
- Grow/shrink memory realloc
- All require stdlib.h

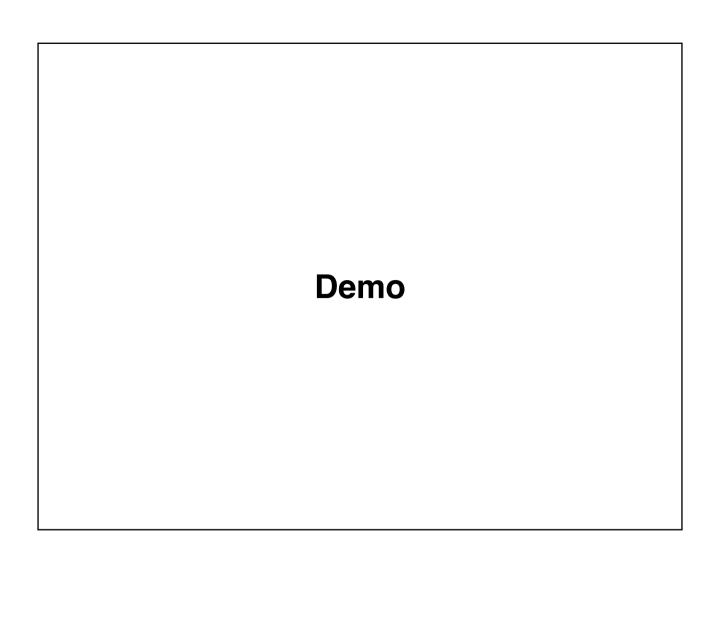
Dynamic arrays on the heap

A common way of using malloc is to create dynamic arrays:

```
int main(void) {
   int num_elements;
   scanf("%d", num_elements);

   int *data = malloc(num_elements *
   sizeof(int));

   return 0;
}
```



Feedback

https://forms.office.com/r/K3PjvWebtD

