Tute 07

COMP1511 23T1

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content

- pointers
- malloc
- command line arguments

assignment 1

- what did we learn
- any tips to yourself or others

pointers

exercise on tute page

https://cgi.cse.unsw.edu.au/~cs1511/22T3/tut/07/questions

- declaration: `type *ptr`
- referencing: `ptr = &variable`
- accessing/deferencing: `*ptr`
- `struct_ptr->field` is equivalent to `(*struct_ptr).field`

the `*` is used both to indicate the type is a pointer and for dereferencing (and multiplication as well!)

pointers example

- `increment_time.c`
- `increment_time_struct.c`

malloc and arrays

```c
struct pet {
    int age;
    int weight;
    char name[100];
};

int main(void) {

    int i;
    double d;
    int array1[10];
    char array2[4];
    struct pet coco;
    struct pet class_pets[5];
    return 0;
}
```

command line arguments

```
int main(int argc, char *argv[]) {

}
```

argc is how many arguments there are.
argv is an array of strings, with each argument.
"./program hello world"
argc is 3
argv = ["program", "hello", "world"]