

## C4 – Pointers, Files and Strings

### 2. Preparation

1. “&” is to get the address of a variable, “\*” is to get the value of a pointer.
2. To pass in an integer array you pass in the starting address (as a pointer) and the length of the array (to know where the end is).
3. “FILE” is the variable type for a file. “fopen” will open a file and return a FILE variable. “fclose” will close a file when you pass in a FILE variable. “fgetc” gets a single character in the file and will return “EOF” if it is at the end of the file.

```
#include <stdio.h>
#include <stdlib.h>

int main() {
    FILE *f;
    char buf;

    f = fopen("new.txt", "r");

    while((buf = fgetc(f)) != EOF) {
        printf("%c", buf);
    }

    fclose(f);
    return 0;
}
```

- 4.
5. The “string.h” header file.
6. The ascii value of “A” is 65.
7. A Caesar Cipher is when the letters of the alphabet are shifted by an amount and the message is encrypted and decrypted using this conversion (source: Wikipedia.org).
8. The percent sign (%) is used to implement a modulo.