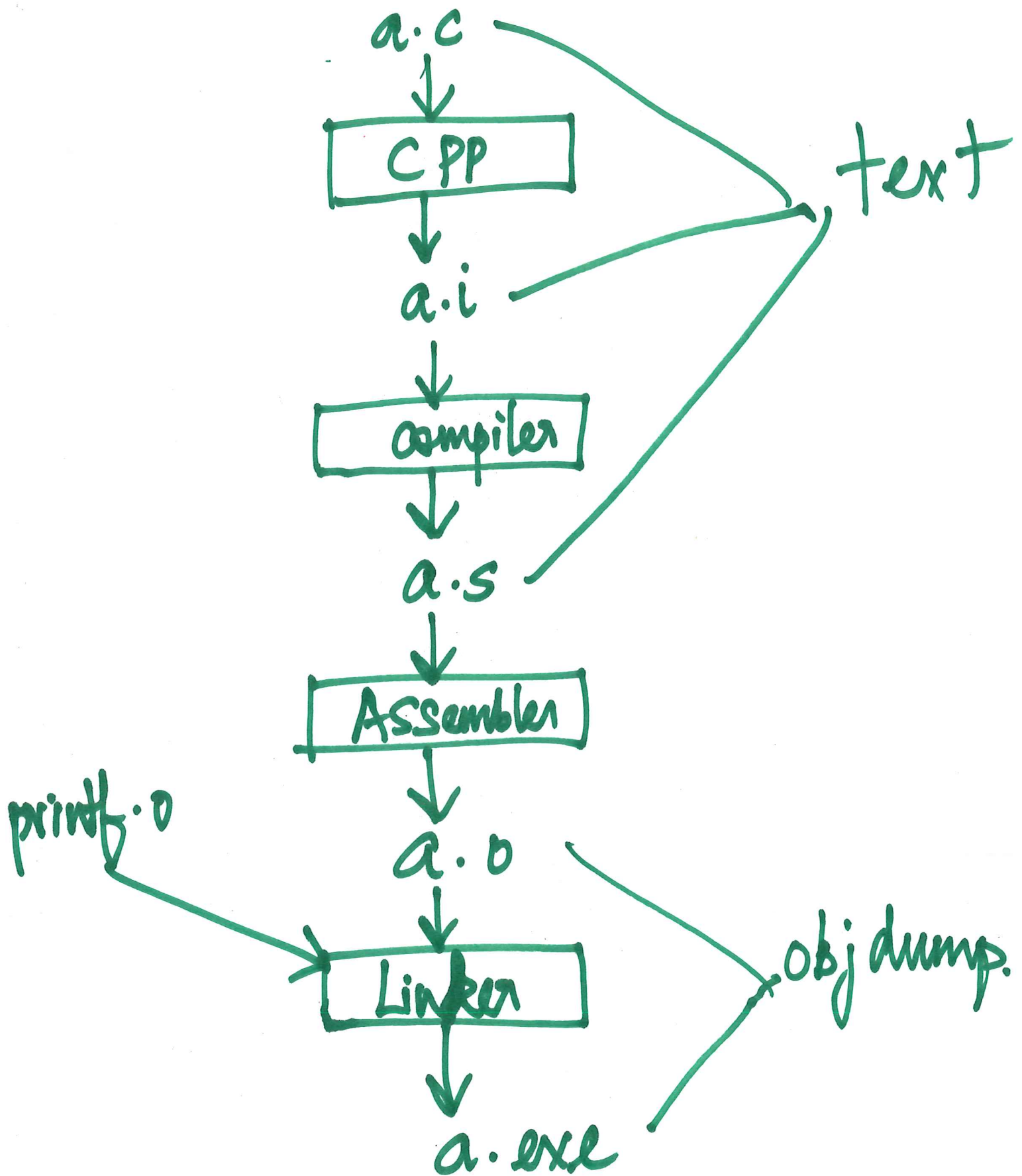


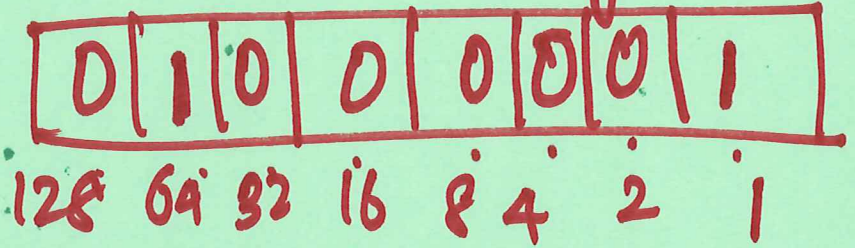
CS 354 - Lecture 1



Data Types

char
int
float
double

char - 1 byte



```
char ch = 'A';  
int num = 100;
```

int - 4 bytes
A - 65
B - 66

at least 2 bytes → at least 2 bytes
short ≤ int ≤ long int → at least 4 bytes

short int - 2 bytes
long int - 4 bytes

char - 1 byte

short int - 2 bytes

int - 4 bytes

long int - 4 bytes

- 32 bits

long long int - 8 bytes

int a = 10;

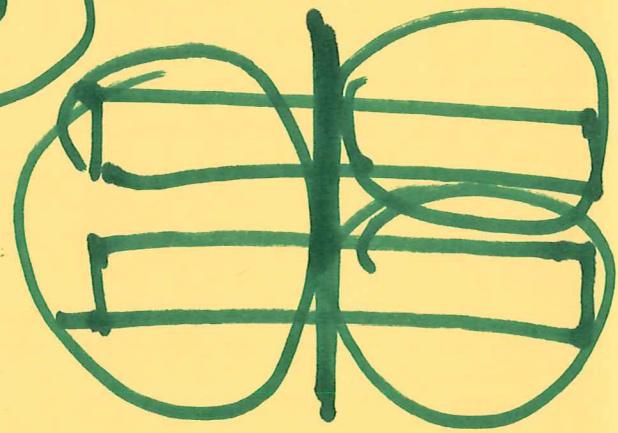
printf("%d", a);

char ch = 'K';

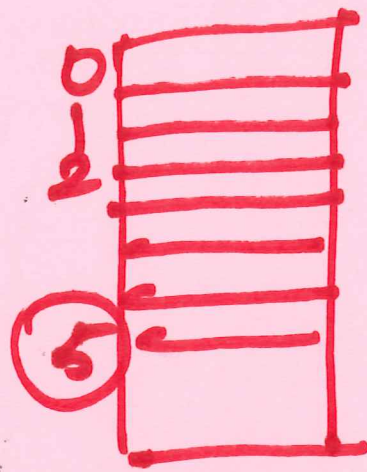
printf("%c", ch);

%f %lf

123.45



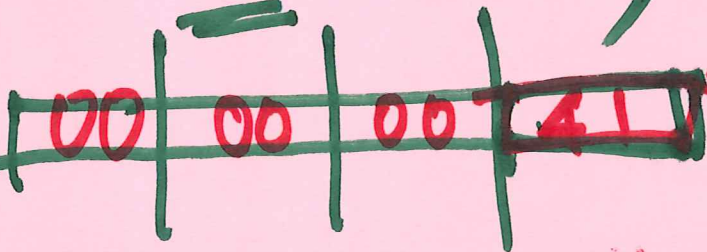
unsigned int
 signed int
 unsigned char
 signed char



char c = 'A';

↓
65₁₀

int h = 0x41;



0x41 ≤ 0x51

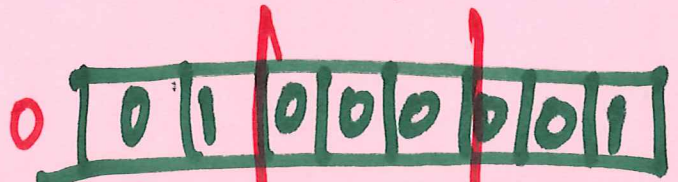
gedit



↑
4

0x41

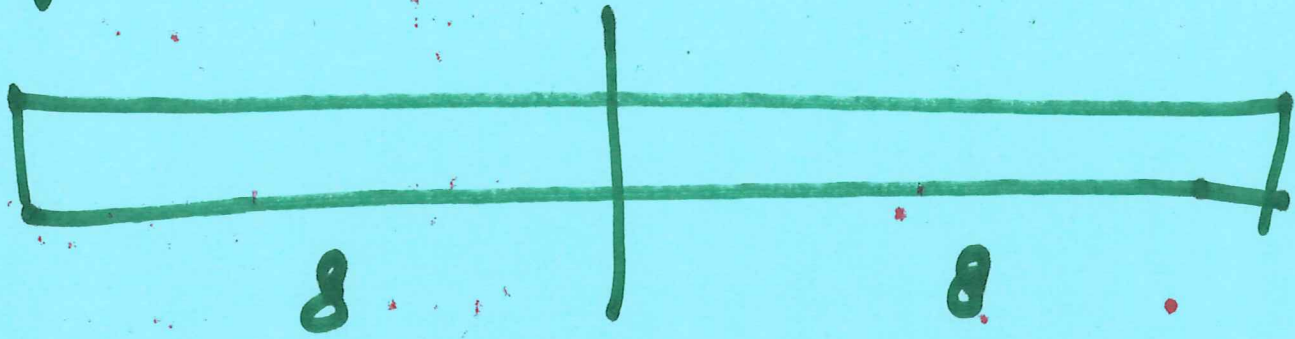
0x41



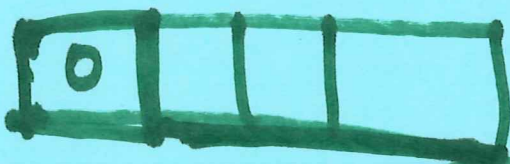
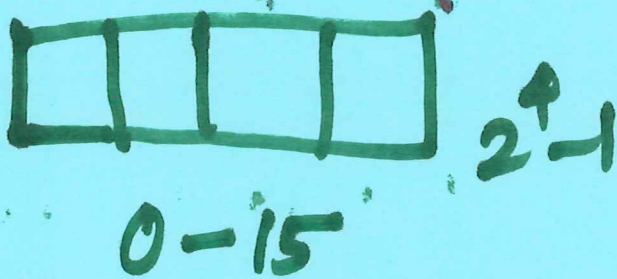
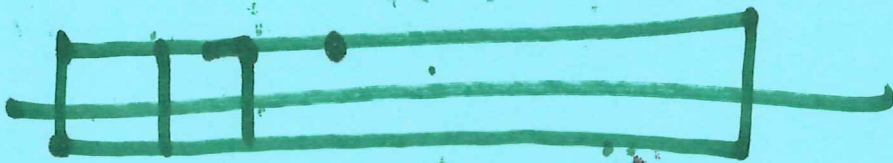
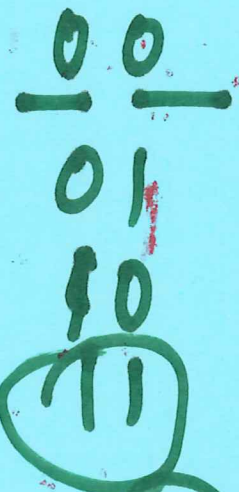
↑
4 2 1
1 0 1

0101

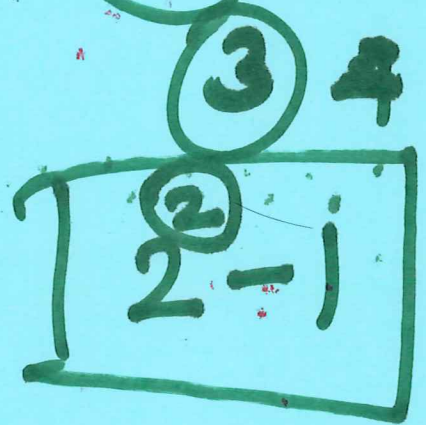
unsigned short int - 16 bits (2 bytes)



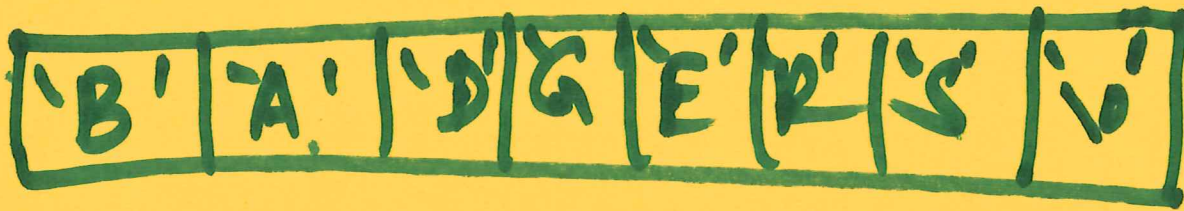
min - 0
max - $2^{16} - 1$
= 65535



$-2^{32} \leq x \leq 2^3 - 1$



char S[] = "BADGERS";



memory - 8
len - 7



'A' "A"

