

Wednesday, Feb 24, 2021

Today

- recap Questions
- binary file I/O
- bitwise operations
- review ex 5-1
typedefs
- ex 5-2

Recap Qs /

1) fread & fwrite

text I/O: sequence of text chars

binary I/O: sequence of bytes

└ 8 bit value

HW3 - due today

HW4 - due Tues 3/2 by 11pm
written homework, no late
submissions

slido.com
jhuip01
↑
zero

2) $a = 10011010$ ()
 $b = 11010011$ ()

exclusive
or

$a \wedge b$

("|" bar symbol)

10011010
 \wedge 11010011

01001001

10011010
 $\&$ 11010011

11011011

int set = ...

if ((set & ITEM3) != 0) {

// ITEM3 in set

}

...

set = set | ITEM4;

3) logical operation (&, |, ^) applied to corresponding } integer
bits in operands

Based on binary repr. of operand
value

Float: can't

Applications: "bit sets"

| | | |
|---------|---------|---|
| #define | ITEM1 | 1 |
| # | " ITEM2 | 2 |
| # | " ITEM3 | 4 |
| # | " ITEM4 | 8 |

4) 1 || logical OR
 | bitwise OR

5) (15 >> 2) | 7

| | |
|------------|------------|
| <u>dec</u> | <u>bin</u> |
| 15 | 00001111 |
| | |

| | |
|---------|----------|
| 15 >> 2 | 00000011 |
| 7 | |

(15 >> 2) | 7 00000111 \Rightarrow 7

```
struct Stat {  
    :  
};  
  
:  
struct Stat s;
```

```
typedef struct {  
    :  
} Stat;  
  
:  
Stat s;
```