

# TI DSP, MCU 및 Xilinx Zynq FPGA 프로그래밍 전문가 과정

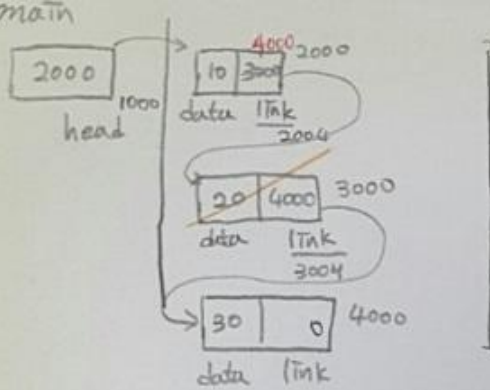
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학생 : 황수정

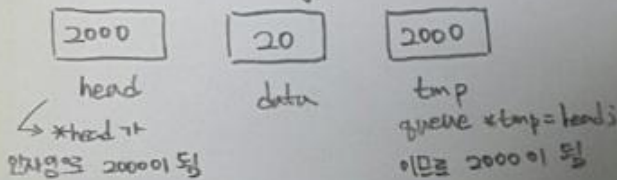
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9일차 (2018. 03. 06)



enqueue 와  
 print - queue (head);  
 까지 끝난 상태

head = dequeue (head, 20);



if (tmp == NULL) 조건이 맞지 않으므로 pass

if (head -> data != data)

↳ 2000 이 가르키는 data는  
 data = 10 이므로 조건 충족

head -> link = dequeue (head -> link, data);



if (tmp == NULL)은 pass

if (head -> data != data)

↳ 3000 이 가르키는 data는  
 data = 20 이므로 pass

else

printf("%u") -> 20 출력

free(tmp); -> [20 | 1000] 단점

return head -> link;

head -> link는 4000을 가르킨다.

head -> link = dequeue (head -> link, data); 이므로

리턴값 4000을 'head -> link'에 대입한다

'3000 -> 4000'이 됨

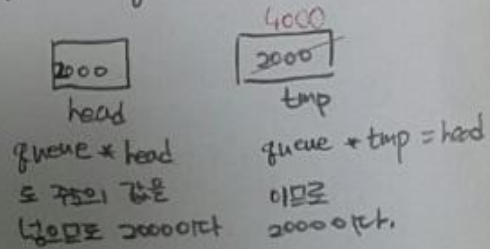
return head; 는 head 값이 2000 이므로

2000을 반환한다.

head = dequeue (head, 20); 이니

head에 2000을 대입한다.

print - queue (head);



while (tmp)

printf("%d\n", tmp -> data);

-> 2000이 가르키는 data는

'10'이므로 '10' 출력

tmp = tmp -> link

'tmp -> link' 4000 이므로

tmp에 4000 대입한다.

-> 4000이 가르키는 data는

'20'이므로 '20' 출력

tmp는 0이 되고 연산 종료

dequeue 와  
 print\_queue  
 를 그림으로  
 나타낸 것.

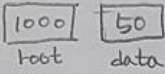
# tree 7개의 수를 그림으로 나타낸 것

main 2000 50, 45, 73, 32, 48, 46, 16

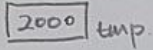


tree \* root = NULL;  
tree = 0 값.

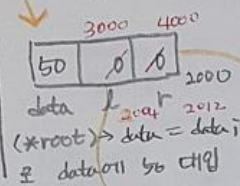
tree - Tns



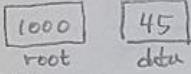
if (\*root = NULL) → ~~if~~  
\*root = get\_node();



\* l = left  
r = right

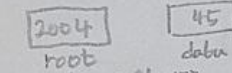


for(u),  
tree - Tns



if pass. <50 <45  
else if ((\*root) -> data > data) ~~if~~

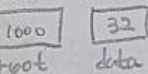
tree - Tns



& (\*root) -> left 이므로 → if (\*root = NULL) ~~if~~  
2004 대입

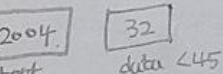
get node 2004 tmp.

for(u)  
tree - Tns

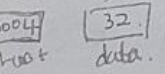


(\*root) -> data > data

tree - Tns



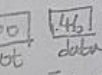
tree - Tns



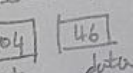
get node.  
5000 tmp

for(u)

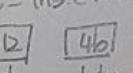
tree - Tns



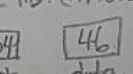
tree - Tns (\*root) -> data > data.



tree - Tns (\*root) -> data < data.

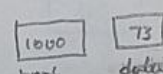


tree - Tns (\*root) -> data > data



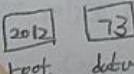
get - node  
7000 tmp

for(u),  
tree - Tns



if & if  
else if ((\*root) -> data < data)

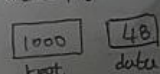
tree - Tns



get node() 4000 tmp

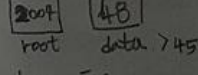
for(u)

tree - Tns

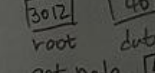


(\*root) -> data > data

tree - Tns



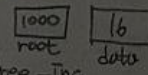
tree - Tns



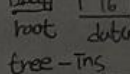
get node 6000 tmp

for(u)

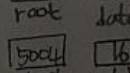
tree - Tns



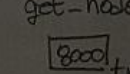
tree - Tns



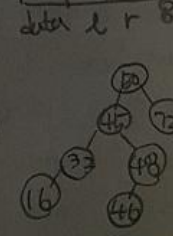
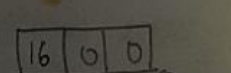
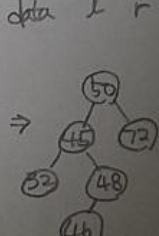
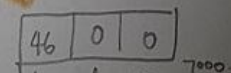
tree - Tns



tree - Tns



get - node  
8000 tmp



# 과제2. c언어 복습 문제

1. 실수와 정수를 입력 받고 그 값을 함수의 인자로 넘겨 두 수의 곱을 실수형으로 반환하여 출력하라.

```
#include <stdio.h>

double mul(int num1, float num2)
{
    double mul;
    mul = num1 * num2;
    return mul;
}

double main(void)
{
    int num1;
    float num2;
    printf("정수를 입력하시오:");
    scanf("%d", num1);
    printf("실수를 입력하시오:");
    scanf("%f", num2);
    printf("입력된 두 수의 곱은 %f이다\n", mul(num1, num2));
    return 0;
}
```

2. 1 ~ 33 까지의 숫자를 가지고 369 게임을 구현해보자! 박수 대신 "짝" 을 출력하면 된다.

```
#include <stdio.h>

int main(void)
{
    int num;
    int a = 1;
    while (a <= 33)
    {
        if(a % 3 == 1, 2)
        {
            printf("%d\n", a);
            a++;
        }
        if (a % 3 == 0)
        {
            printf("짝\n");
            a++;
        }
    }
}
```

```
#include <stdio.h>

int main (void)
{
    int a;
    for(a=1;a<=33;a++)
        if (a % 3 == 0)
        {
            printf("짝\n");
        }
        else (a % 3 == 1,2);
        {
            printf("%d\n",a);
        }
    return 0;
}
```